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Canada

The Implications of Early Childhood  
Intervention for the Prevention of  
Delinquency in Ottawa.

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Submitted to the Department of  
Criminology, University of Ottawa,  
in partial fulfilment of the requirements  
for the degree of Master of Arts, 1989.

 Barry M. MacKillop, Ottawa, Canada, 1989.

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## Abstract

HeadStart compensatory education programs for socio-economically disadvantaged preschool children have been around since 1960 in the United States, yet their potential for use in a comprehensive crime prevention strategy has barely been tapped.

Through a comprehensive literature review of longitudinal studies carried out primarily in the United States and Great Britain, specific individual and family characteristics were identified as factors which play a major role in the genesis of persistent delinquent behaviour. I then examined four preschool projects in the United States that focused their intervention on one or more of the identified factors to determine what effect this would have on the development of delinquent behavior.

The information obtained from this analysis strongly pointed to the possibility of utilizing preschool compensatory education programs to intervene with those children deemed, on the basis of the factors identified through the literature review, to be at a high risk of developing a persistent delinquent behavior pattern. The analysis further allowed for the design of a model program as well as an elaboration of the ideal components to be included in this program which are consistent with the research.

Through a review of the limited Canadian research in the area of preschool intervention programs and a review of McMahon, Pugh and Ipsen's (1960) theory of causality, the feasibility of using a United States based model as a paradigm against which the preschool services in Ottawa could be measured was proposed.

Preschool intervention services in Ottawa included elementary preschool programs, day care programs and HeadStart programs. The curriculum design and the components of these programs were then compared to those of the model program. The ensuing discussion and recommendations aimed to identify program deficits and to suggest methods of ameliorating the services in Ottawa with respect to incorporating the essential components indicated by the model program.

The conclusions suggest the potential of utilizing well designed and properly implemented preschool intervention programs for socioeconomically disadvantaged children, within the context of a comprehensive crime prevention strategy, to reduce the incidence of the development of persistent delinquent behavior.

TABLE OF CONTENTS

|           |  |    |
|-----------|--|----|
| CHAPTER 1 | INTRODUCTION.....  | 1  |
| CHAPTER 2 | METHODOLOGY.....   | 5  |
| CHAPTER 3 | EMPIRICAL KNOWLEDGE OF PREDISPOSING FACTORS IN<br>DELINQUENCY..... | 9  |
|           | I. Gluecks (1950).....   | 9  |
|           | II. Robins (1966).....   | 11 |
|           | III. Wolfgang, Figlio and Sellin (1972).....                       | 13 |
|           | IV. West and Farrington (1973).....                                | 15 |
|           | V. McCord (1978).....  | 18 |
|           | VI. Loeber and Dishion (1983).....                                 | 19 |
|           | VII. Rutter and Giller (1983).....                                 | 21 |
|           | VIII. Farrington, Ohlin and Wilson (1986).....                     | 25 |
|           | IX. Conclusion.....  | 29 |
| CHAPTER 4 | EARLY CHILDHOOD INTERVENTION PROGRAMS.....                         | 31 |
|           | I. The Perry Preschool Project.....                                | 31 |
|           | II. The Early Training Project.....                                | 40 |
|           | III. The Harlem Study.....   | 47 |
|           | IV. The Mother-Child Home Project.....                             | 54 |
|           | V. Conclusion.....   | 60 |
| CHAPTER 5 | IMPLICATIONS OF THE FINDINGS FOR CANADA.....                       | 67 |

|                  |  |            |
|------------------|--|------------|
| <b>CHAPTER 6</b> | <b>AN OVERVIEW OF THE SERVICES PRESENTLY AVAILABLE</b> |            |
|                  | <b>IN OTTAWA.....</b>                                  | <b>78</b>  |
|                  | Elementary Schools.....                                | 78         |
|                  | Day Care Centres.....                                  | 84         |
|                  | HeadStart Programs.....                                | 89         |
| <b>CHAPTER 7</b> | <b>DISCUSSION AND RECOMMENDATIONS.....</b>             | <b>94</b>  |
|                  | 7.1 Evaluation.....                                    | 96         |
|                  | 7.2 Coordination of Services.....                      | 98         |
|                  | 7.3 Day Care Services.....                             | 101        |
|                  | 7.4 The Role of the Ministry.....                      | 104        |
|                  | 7.5 HeadStart Programs.....                            | 106        |
| <b>CHAPTER 8</b> | <b>CONCLUSION.....</b>                                 | <b>109</b> |
|                  | <b>BIBLIOGRAPHY.....</b>                               | <b>114</b> |
|                  | <b>APPENDIX A.....</b>                                 | <b>124</b> |

LIST OF TABLES

|                  |   |    |
|------------------|---|----|
| <b>TABLE # 1</b> | Summary of Predisposing or Influential Variables<br>in the Development of Juvenile Delinquency as<br>Determined Through Empirical Research..... | 28 |
| <b>TABLE # 2</b> | Background Characteristics of the Study Participants<br>and Their Families.....   | 61 |
| <b>TABLE # 3</b> | Documented Effects of Four Preschool Programs for<br>Disadvantaged Children.....  | 63 |
| <b>TABLE # 4</b> | Comparison of Empirical Research and Intervention<br>Studies.....   | 70 |

## CHAPTER ONE

### INTRODUCTION

The prediction and prevention of juvenile delinquency has long been a major focus of criminologists. As with preventive models in any discipline of study, a major concern in preventing delinquency is the definition of what exactly one is attempting to prevent.

The term juvenile delinquent has been used to denote adolescents who have an "anti-social" way of life which may include the commission of crime. The term crime refers to violations of the criminal code and various other statutes. As such, the term must be considered within the context of a society and the laws which govern that particular society for what might be considered criminal in one society may not be in another. Further, an accurate measure of crime is not easily obtainable, as crime levels often vary depending on whether they are assessed by official statistics, victimization surveys or self-report studies and it is generally accepted that the exception is he who never breaks the law as opposed to he who does (Wilson and Herrnstein, 1985:19-22). Consequently, it is imperative in the study of the prevention of juvenile delinquency that the bounds of the main concepts be established. This paper will confine its focus to those children who, by virtue of having a combination of factors

identified in the criminological research (e.g. low I.Q., inconsistent and uncaring parenting and low socioeconomic status to name but a few), are placed at a higher risk of developing a delinquent lifestyle (Farrington, 1986, Loeber and Dishion, 1983, Schweinhart, 1987, Wright, 1983).

Although there exists an abundance of literature that attempts to explain this anti-social behavior among adolescents, our ability to effectively deal with this problem continues to be severely hampered by our incapacity to translate our understanding of the origins and evolution of criminal careers into successful preventive programs. Consequently, societies have tended to limit themselves to attempting to control crime after the fact through the use of individual counselling and rehabilitative treatment, deterrence and incapacitation which have demonstrated some effectiveness in reducing recidivism ( especially behavior modification programs, Rutter and Giller, 1983, and those that are cognitively-oriented, Ross and Fabiano, 1987), yet have had little effect on preventing the initial occurrence. (Farrington, 1986:1, Rutter and Giller, 1983:318). Implicit in the fact that these programs are not, by themselves, sufficient to avoid rising crime rates is that a different approach to the problem of juvenile crime is required in order to reduce its occurrence.

Within the social development movement, which focuses on increasing positive attitudes and behaviors in individuals by influencing their experiences (Waller and Weiler, 1984), the concept of early childhood intervention, both with the individual as well as within targeted families, has long been promoted, although not universally accepted, as a viable approach to prevent the development of delinquency. The underlying philosophy is that prevention, when properly practised, is more effective than treatment and it assumes that delinquency is the product of a cause and effect relationship between variables. The challenge, therefore, is to identify a constellation of factors which precede delinquency and predict its occurrence. Given that "problem behaviors of children have a high degree of continuity over time" (Loeber and Dishion, 1983:68), it is hypothesized that once these factors are isolated and causally linked to delinquency, it becomes possible to design and implement an appropriate preventive strategy effective at a very early stage of childhood development.

Through a detailed examination of the longitudinal research performed in Britain and the United States, those factors which tend to predict delinquency will be identified and isolated. An ensuing analytical review of preschool programs established in the United States and the Canadian work done in this field will allow for a measure of the

effectiveness of intervention on these factors. By combining this information, it is the goal of this paper to determine the ideal components of a successful early childhood intervention program. The variety of sources that will contribute to the development of this early childhood intervention program will permit it to serve as a standard against which the services presently available in Ottawa may be compared and contrasted.

An analysis of the accumulated information will allow for the postulation of specific recommendations with respect to the services and needs of Ottawa, as well as general conclusions on the merits of promoting early childhood intervention as a preventive approach to reducing the incidence of juvenile delinquency.

It is hoped that this research thesis will be of value to those individuals who formulate the crime prevention policies in this country as well as to those who oversee the early education of our children.

## CHAPTER TWO

### METHODOLOGY

The success of a preventive approach to juvenile delinquency is dependent on the interrelationship of numerous factors. Foremost among these, and often the most difficult component in the development of a program, is the selection of factors that the program must target. To the exclusion of other variables, the preferred variables must be supported by the existing empirical research and they must also be susceptible to alteration.

The factors deemed to be causally linked to the development of delinquency are determined from experimental studies and longitudinal research performed over the last forty years. For example, the Gluecks (1950), Robins (1966), Wolfgang, Figlio and Sellin (1972), West and Farrington (1973, 1977), McCord (1978), Loeber and Dishion (1983), Rutter and Giller (1983) and Farrington, Ohlin and Wilson (1986). Their cumulative results suggest both the choice of factors as well as demonstrate that these factors are consistent over time and geographically different locations.

For our purposes, longitudinal surveys are the most useful methods of studying the development of crime and juvenile delinquency. These involve numerous measures of the same people over an extended period of time which provide important details on the history and course of development of the phenomenon ( Farrington et al., 1986).

Further, with respect to the development of preventive programs, longitudinal surveys may shed light on when a criminal career begins, the length of the career and when and why the criminal career ends. Information regarding the link between these stages cannot, on the other hand, be adequately generated through cross-sectional surveys (Farrington et al., 1986). Longitudinal surveys possess the ability to gather information concerning the sequence of occurrence of different events and are thus useful in determining cause and effect relationships. "A major problem in using the cross-sectional method to study changes over time is that many differences between groups may not be connected with time...(but may simply) reflect pre-existing differences between different groups" (Farrington et al., 1986:26). Consequently, while longitudinal surveys have their limitations and more research is required to assess the impact of specific events on the development of a criminal career, they were chosen as the most appropriate method of identifying

those factors consistently related to the development of juvenile delinquency.

Once identified, the hypothesis is that a well-designed program, whose goal is to intervene with one or more of these factors, can be implemented to successfully reduce the incidence of the development of delinquency among individuals. To test this hypothesis some experimental programs among preschool children in the United States and Canada were chosen for examination. While other variations of these programs exist ( see for example The Consortium for Longitudinal Studies, 1983), the factors selected for focus by these programs (e.g. low socioeconomic status of parents, low I.Q. of child, poor school conduct or poor educational achievement) tended to be similar and thus it would be redundant to expand on all these programs in this work. Further, although only one program incorporated actual measurements of its effects on delinquency rates, the consistency of results throughout the programs with respect to all other variables, combined with an elaboration of the theoretical argument for cause ( McMahan, Pugh and Ipsen, 1960), suggests that had the other programs included data on delinquency the results may have been replicated.

The programs were intentionally selected for their diverse designs with the goal of providing a sufficient base from which the best characteristics of the programs may be

drawn to enhance the effectiveness, and facilitate the design, of a model program.

This model program will then serve as a reference program upon which an objective examination of the preschool programs and the day care programs in the city of Ottawa may be made. This city was chosen from a practical point of view for its proximity to my residence, yet also due to the existence of multiple school boards within the city ( which permits examining the implementation of the programs across the different boards) as well as the existence of a large number of day care facilities. While some differences were found to exist between school boards, it should be noted that the Ontario Ministry of Education (Ontario, 1985) has formulated guidelines for the implementation of such programs in the elementary schools of the province, and hence, limiting the study to one city should not affect the generalization of the results within Ontario.

It is hypothesized that the services available in the city of Ottawa will lack one or more of the desired characteristics of the model program. Consequently, the goal of this research is to formulate conclusions on the basis of these gaps in the services and to advance recommendations in light of ameliorating the services offered and their potential effectiveness in preventing the development of juvenile delinquency.

CHAPTER THREE  
EMPIRICAL KNOWLEDGE OF PREDISPOSING FACTORS IN  
DELINQUENCY

Criminologists have long recognized the importance of the family environment in explaining crime. The 1950's gave rise to a large number of descriptive studies performed with the families of criminals or delinquents, with the goal of establishing factors specific to the criminal's family life which were responsible for their later delinquent behavior.

I. Unravelling Juvenile Delinquency ( The Gluecks'1950)

One approach exemplified in the Gluecks' 1950 study, Unravelling Juvenile Delinquency, was to carry out a retrospective study in which the family features of a group of convicted delinquents were compared to those of a normal, or non-convicted, group. The Gluecks compared the families of 500 delinquent boys from two Massachusetts correctional schools to those of 500 boys who had never been adjudicated as delinquent. The subjects were matched in age, I.Q. ethnic origins

and the locality in which they lived (Glueck and Glueck, 1950). The investigators then collected data from the schools, the court and the social agencies involved, as well as intensive home interviews with the parents of each subject. The Gluecks summarized their findings by stating that delinquent children were different:

in having been reared to a greater extent than the control group in homes of little understanding, affection, stability or moral fibre by parents usually unfit to be effective guides and protectors or desirable sources for emulation and the construction of a consistent, well-balanced and socially normal superego during the early stages of character development.

(Glueck and Glueck, 1950:282)

Otherwise stated, the preeminent finding in the Gluecks' (1950) study was that the parents of the boys in the delinquent group were more likely to employ disciplinary techniques deemed, by the investigators, to be unsuitable than were the parents of the control group. As well, the parents of the boys in the delinquent group were seen by the inves-

tigators to be less likely to provide socially acceptable role model behavior than were the parents in the control group.

The results of the study led the Gluecks to claim that they could predict 90% of all future delinquents (Glueck and Glueck, 1950). However, their research has raised some major criticisms, primarily, methodological (Farrington, Ohlin and Wilson, 1986: 213, 214). Also, the fact that one of the aims of the approach taken by the Gluecks was to identify child-rearing patterns that were likely to lead to criminal activity in the offspring, gave rise to difficulty in accounting for within-family differences as well as the potential for unwarranted labelling among family members (Dallos, 1981: 373, 375). Nevertheless, as the following reviews will demonstrate, there exists a body of studies with encouraging results for the early identification of youths at risk of becoming delinquent.

## II. Deviant Children Grown Up (Robins, 1966)

Robins performed a 30 year follow-up study of children referred to the St-Louis Municipal Psychiatric Clinic, a child guidance clinic in St-Louis.

The study "traces the adult social and psychiatric outcomes of 524 child guidance clinic patients and compares them with the adult social and psychiatric status of 100

normal school children of the same age, sex, neighbourhood, race and I.Q. "(Robins, 1966:V).

In her selection of patients Robins (1966) divided the reason for referral into two broad categories of anti-social and "non-antisocial" (Robins, 1966:43). Those patients referred for antisocial behaviors were so categorized if the reason for referral included theft, robbery, truancy, running away from home or aggression of any sort towards others or society (Robins, 1966:43). All other referrals were categorized as non-antisocial and included such behaviors as "temper tantrums, irritability, depression, school failures, speech defects" (Robins, 1966:43) and so on.

As Farrington, Ohlin and Wilson (1986:28) point out, "one of the most important contributions of Robins' survey was to demonstrate the versatility of antisocial behavior as well as its continuity from childhood to adulthood." In her discussion of the patients and controls at follow-up, Robins (1986:68) states that "not only were antisocial children more often arrested and imprisoned as adults, but they were more mobile geographically, had more marital difficulties, poorer occupational and economic histories (and) even poorer physical health. The control subjects consistently had the most favourable outcomes".

The implications of Robins' (1966) findings are further detailed by Rutter and Giller (1983:182) who state

that the most consistent parental characteristic associated with delinquency in the offspring is that of parental criminality and that "the association applies also to persistent social difficulties (excessive drinking, poor work record and frequent unemployment, reliance on social welfare) and to serious abnormalities of parental personality".

Robins' findings strongly suggest that, within the area of delinquency prevention, it is imperative that the focus be on the family and more specifically the parents and their child-rearing techniques given the association between parenting and delinquency in the offspring.

### III. Delinquency in a Birth Cohort (Wolfgang et al. 1972)

In 1972, Marvin Wolfgang, Robert Figlio and Thorsten Sellin published the results of their study Delinquency in a Birth Cohort which served to shed a great deal of light on the concept of the career criminal.

Wolfgang and his colleagues chose, as their birth cohort, all the males born in Philadelphia in 1945 and followed them through official police, school and social agency records until their eighteenth birthday in 1963. Of the original sample, complete records were reconstructed on a total of 9,945 males.

Wolfgang et al. (1972) discovered that of the final sample, 3,475, or 35 percent, had at least one officially recorded contact with the police and that of this group, 46 percent or 1,613 males, were never caught again. This does not indicate that they refrained from committing further offenses but simply that they avoided getting caught a second time. As a result, they were classified and referred to as "one-time offenders" (Wolfgang et al., 1972).

Of the remaining 1,862 delinquents, it was found that 66 percent were arrested either two, three or four times each and were referred to as "non-chronic recidivists" (Wolfgang et al., 1972).

The balance, or 627 delinquents, were labelled as chronic delinquents who had five or more arrests before they were eighteen years old. The arrest total for this group was 5,305 which produces an average of 8.5 arrests each for the 627 delinquents.

The significance lies not in the total number of chronic offenders per se, but in the fact that Wolfgang and his colleagues (1972) demonstrated that this group of 627 chronic offenders, which represents 6% of the original cohort, accounted for a substantially large proportion of the total number of offenses committed. In fact, of the 10,214 total criminal offenses, the 6% group of chronic offenders,

themselves, accounted for 52% of these offenses or 5,305 offenses.

Wolfgang and his colleagues (1972) demonstrated that not only did the group of chronic offenders commit a disproportionately large number of offenses, but that the average seriousness of the offense increased with each successive arrest. It was determined that the chronic offenders were responsible for 71% of the murders, 73% of the rapes and about 82% of the robberies committed by the delinquents in the study (Wolfgang al. 1972).

With respect to the implications of their findings for policy makers, Wolfgang, Figlio and Sellin found that the highest offense rates were for low-income and non-white males. They also found significant correlations between I.Q. scores and delinquency as well as between relative success in school and delinquency. Thus, the data of Wolfgang and his colleagues (1972) suggests that the early identification and intervention for chronic offenders and their families might result in substantial reductions in the delinquency rates.

#### IV. The Cambridge Study (West and Farrington, 1973)

D.J. West and D.P. Farrington carried out a longitudinal study in London, England through the years 1961 to 1977 with a follow-up interview held in 1984.

The Cambridge Study (1973) was a prospective study of 411 males who were followed from the ages of eight and nine in 1961 and 1962, to the age of twenty-five, and who were again interviewed at the ages of thirty-one and thirty-two. This study was unique both in the number of interviews performed with each person as well as the variety of data sources utilized. The prospective nature of the study was deliberate to minimize researcher biases that exist in retrospective studies and the number of data sources utilized was hoped to reduce the chance of the results representing research expectations rather than experimental outcome measures (Farrington, Ohlin and Wilson, 1986:15, 61-63).

Based on the registers of six elementary schools, the boys were chosen from a working class area of London and were interviewed and tested by school psychologists at the ages of 8, 10, and 14. The follow-up interviews were conducted at the ages of 16, 18, 21 and 24 by male social science graduates (Farrington, 1986). "In addition to the interviews and tests, the boys' parents were also interviewed yearly as long as the boys were in school, and their teachers and peers also filled in questionnaires at intervals. Criminal records were obtained not only for the boys but also for their fathers, mothers, brothers, sisters and wives" (Farrington, Ohlin and Wilson, 1986:35).

The results obtained in this study are similar to those presented by Wolfgang and his colleagues (1972). Essentially, the Cambridge Study (1973) showed that those boys convicted at the earliest ages tended to have the longest criminal careers. As well, the study supported Wolfgang et al's (1972) finding that about 6% of the offenders accounted for about 50% of all convictions and that indices of economic deprivation and low intelligence were good predictors of later delinquency with the latter being "one of the best independent predictors of later offending" (Farrington, 1986:3).

West and Farrington (1977) also found a number of factors measured at a young age that were predictive of later offending, such as aggressiveness or troublesome behavior as noted by teachers at the primary school level. West and Farrington (1977) determined, as well, that poor parental child-rearing techniques ("a combination of cruel or neglecting attitudes, harsh or erratic discipline, and parental conflict (Farrington, Ohlin and Wilson, 1986:46)), as measured at age 8, could successfully predict later offending.

Consistent with Robins' (1962) findings, West and Farrington (1977) found that the presence of criminal parents as well as the choice of delinquent peers at the age of 14 were both found to be significantly correlated to offending as a young adult.

"The Cambridge Study concluded that a constellation of adverse family background factors led to a constellation of socially deviant factors in adolescence and adulthood. Therefore, attempts to prevent offending, if they are successful, may have a much more general payoff in preventing a whole range of social problems" (Farrington, 1986:4).

#### V. The Cambridge-Somerville Youth Study (McCord, 1978)

The Cambridge-Somerville Youth Study begun by Powers and Witmer (1951) and followed up by McCord (1978, 1979) has the distinction of being "the longest lasting American longitudinal survey of crime and delinquency" (Farrington, Ohlin and Wilson, 1986:33). While the initial survey need not be examined, McCord's thirty year follow-up study revealed results similar to the works of West and Farrington (1977), Wolfgang, Figlio and Sellin (1972), Robins (1966) and the Gluecks (1950). Specifically, McCord disclosed three significant results: first, "that cruel, passive or neglecting parental attitude, harsh or erratic parental discipline, and poor supervision all predicted later offending" (Farrington, 1986:3). Secondly, McCord's research revealed that broken homes, in and of themselves, did not play a major predictive role in later offending. However, parental conflict and a lack of maternal affection characterized the early childhood of

offenders. Finally, McCord concurred with other longitudinal study findings that the presence of criminal parents was significantly correlated, and hence a strong predictor, of later delinquency in males (McCord, 1978).

The strength and validity of the predictive variables determined by isolated studies is largely dependent on their duplication and continuity over time. The relative importance given to individual variables is subject to the interests of the researcher. In order to define those factors most likely to be positively influenced by intervention strategies, studies dedicated to an extensive review of the empirical research should be analyzed.

#### VI. Loeber and Dishion (1983)

Loeber and Dishion (1983) carried out a detailed review of prediction and recidivism studies on delinquency with the aim of identifying established variables for delinquency that have proven to be of predictive value across different studies and different populations.

Demonstrating that prediction in delinquency is possible due to the degree of continuity over time intrinsic in the problem behavior of children, and to the fact that those variables which tend to predispose a child to eventually engage in delinquent activity are known, Loeber and Dishion

established ten criteria upon which studies were chosen for inclusion in their review (see Loeber and Dishion, (1983:73).

Loeber and Dishion (1983:69-73) used a predictive efficiency measurement to rank the factors isolated by each study according to their predictive power with respect to their relative improvement over chance. In concluding their review of all the studies Loeber and Dishion (1983:87) noted that:

Composite measures of parental family management techniques tended to be most predictive of delinquency, followed by the child's problem behavior. Reports of the child's stealing, lying or truancy come next, followed by criminality or antisocial behavior of family members, and the child's poor educational achievement.

The rank order of the predictors of recidivism differed somewhat with the best two being the child's own antisocial or delinquent behavior followed by the antisocial or criminal behavior of family members. The comparability of the two rankings is compromised, however, as Loeber and Dishion (1987:87) point out, by the absence of recidivism studies that measure the influence of such factors as family management techniques and the child's school achievement.

While recidivism studies rely almost entirely on official records for their data, Loeber and Dishion's (1983) study strongly suggests that the measurement of specific multiple criteria can be quite effective in predicting juvenile delinquency well before its onset (1983:94).

#### VII. Rutter and Giller (1983).

One of the most comprehensive reviews of the literature on juvenile delinquency was published in 1983 by Michael Rutter and Henri Giller. Their book, Juvenile Delinquency: Trends and Perspectives (1983), focused on a review of the empirical literature published since the mid-60's in Britain and the United States. Rutter and Giller (1983) concentrated their focus considerably on determining which individual, environmental, social and familial characteristics tended to act as predisposing factors in the development of juvenile delinquency. This eclectic search for the causes of juvenile delinquency stems in part from their conclusions on the developmental trends in juvenile delinquency that "a particular child may be consistently more likely than his peers to engage in delinquent activity (the importance of "traits"), but whether in fact he engages in such activities will depend to a considerable extent on the

situation he finds himself in (the importance of "situations") (Rutter and Giller, 1983:64).

Therefore, each area of a child's life must be examined as part of the whole, when searching for influential factors, as none can exist mutually exclusive of the other.

With respect to individual characteristics, Rutter and Giller (1983:163) cite considerable criminological research demonstrating a strong association "between lower I.Q. and the increased risk of delinquency". However, the lack of distinction between persistent and occasional delinquents in the research led Rutter and Giller (1983) to judge their findings "on individual characteristics as possible predisposing factors in the genesis of delinquent behavior somewhat inconclusive" (1983:179). Nevertheless, the evidence they did acquire suggests that individual factors were quite significant in relation to those classified as persistent delinquents. Furthermore, Rutter and Giller (1983:179) concluded that "probably the best leads apply to cognitive and educational retardation, hyperactivity and attentional deficits, autonomic reactivity, stimulus seeking and passive avoidance learning".

In their review of those studies that measured family characteristics and other psycho-social factors, Rutter and Giller (1983:219) found the research to be much more conclusive with respect to providing evidence of the

association of certain variables to the development of delinquency. These studies were in agreement in showing that, "the family characteristics most strongly associated with delinquency are: parental criminality, ineffective supervision and discipline, familial discord and disharmony, weak parent-child relationships, large family size and psycho-social disadvantage" (1983:219). Rutter and Giller also found that, to a much lesser extent, school influences, as well as films and television, can have some impact on attitudes and behaviors (Rutter and Giller, 1983:219).

Their review of delinquency prevention research focused considerably on behavioral intervention methods as these seem "to offer most promise of effective methods of dealing with delinquent behavior [and have shown] at least a limited degree of success in affecting delinquent behavior (Rutter and Giller 1983:283). Noting that the major difficulty was not so much in effecting change but rather in maintaining the level of change they conclude that:

The two main lessons which seem to emerge from these studies are:

- i) interventions need to be directed to changing the child's home environment and

the pattern of parent-child interaction,  
and

- ii) in so far as the focus is on the offender himself, it needs to be concerned with improving his social problem-solving skills and social competence generally, rather than just seeking to suppress deviant behavior. (Rutter and Giller, 1983:283).

Otherwise stated, in order to achieve success with interventions it is essential that these focus on teaching the offender to become a functional and productive member of society by providing the offender with the required skills (e.g. interaction skills, education, vocational training) rather than limiting the interventions to concealing or silencing the offenders unacceptable behavior.

VIII. Farrington, Ohlin and Wilson (1986)

The final review of the empirical research to be looked at in this chapter is that which was undertaken by Farrington, Ohlin and Wilson (1986) of longitudinal studies from the United States, Great Britain and Scandinavia.

Given the large number of studies potentially available for review, Farrington, Ohlin and Wilson (1986:32) specified the following criteria as essential prerequisites for inclusion in their review:

- a) prospective (ie. one that ages with the participants)
- b) two or more interviews with the subjects;
- c) the first and last interview separated by at least five years;
- d) a sample in the hundreds at least; and
- e) a body of information about criminal or delinquent behavior.

On the basis of their criteria, Farrington, Ohlin and Wilson (1986) reviewed eleven American studies as well as three British studies and three studies from Scandinavia, and found the results to be generally replicated internationally.

Although, individually, studies may vary with respect to the factors chosen for measurement, Farrington, Ohlin and Wilson (1986) concluded that the studies they reviewed demonstrated that the peak years for offending were between fifteen and eighteen years old. The studies also showed that those offenders arrested earliest tended to have the longest criminal careers as well as the largest number of criminal offenses (1986:63). Furthermore, Farrington, Ohlin and Wilson (1986:63-64) concluded, in light of their findings that:

[The studies that they have reviewed] have also shown that criminal parents tend to have delinquent children and that the best predictors of the [early] onset of offending are parental child-rearing techniques, the child's poor educational achievement, and the child's troublesome behavior. Finally, [these studies] have pointed to the concentration of offending in a small deviant minority of high-rate offenders who can be predicted at an early age by such factors as poor school behavior, economic deprivation, convicted parents, low intelligence and poor parental child-rearing behavior.

The above conclusions essentially combine and reiterate those found by Rutter and Giller (1983) and Loeber and Dishion (1983), as can be seen in Table I on page 30 which presents a summary of the predisposing or influential variables in the development of juvenile delinquency as gathered in the empirical research presented in this chapter. The presentation of this table facilitates the understanding of the evidence forwarded in this chapter to support the hypothesis that early prediction, and hence prevention, are possible provided the proper factors are targeted. In their chapter on prevention programs, Farrington, Ohlin and Wilson (1986:109) conclude that:

it is apparent in the foregoing discussion of family and school delinquency prevention programs that these institutions are of critical importance as targets of preventive efforts. The undeniable importance of the family and school in the socialization of youth accords them a central role in any comprehensive prevention program.

TABLE 1

SUMMARY OF PREDISPOSING OR INFLUENTIAL VARIABLE  
IN THE DEVELOPMENT OF JUVENILE DELINQUENCY AS  
DETERMINED THROUGH EMPIRICAL RESEARCH

| STUDIES                                     |  | PREDISPOSING OR INFLUENTIAL VARIABLES |                      |                                  |                                      |             |   |                                  |                                 |                           |
|---|--|---------------------------------------|----------------------|----------------------------------|--------------------------------------|-------------|---|----------------------------------|---------------------------------|---------------------------|
|   | POOR<br>FAMILY<br>MANAGEMENT<br>TECHNIQUES | PARENTAL<br>CRIMINA-<br>LITY          | PARENTAL<br>CONFLICT | LACK OF<br>MATERNAL<br>AFFECTION | POOR<br>EDUCA-<br>TIONAL<br>ACHIEVM. | LOW<br>I.Q. | CHILD'S<br>TROUBLE-<br>SOME BE-<br>HAVIOR (A) | CONVICTION<br>AT AN<br>EARLY AGE | LOW SOCIO<br>ECONOMIC<br>STATUS | CRIMINAL<br>PEER<br>GROUP |
| Gluecks<br>(1950)                           | †  |                                       |                      |                                  | †                                    |             | †   | †                                |                                 |                           |
| Robins<br>(1966)                            | †  | †                                     | †                    |                                  |                                      |             | †   |                                  |                                 |                           |
| Wolfgang<br>Figlio and<br>Sellin<br>(1972)  |  |                                       |                      |                                  | †                                    | †           |   |                                  | †                               |                           |
| West and<br>Farrington<br>(1973)            | †  | †                                     |                      |                                  | †                                    | †           | †   | †                                | †                               | †                         |
| McCord<br>(1978)                            | †  | †                                     | †                    | †                                |                                      |             |   |                                  |                                 |                           |
| Loeber and<br>Dishion<br>(1983)             | †  | †                                     | †                    |                                  | †                                    |             |   |                                  | †                               |                           |
| Rutter and<br>Giller<br>(1983)              | †  | †                                     | †                    | †                                | †                                    | †           |   |                                  |                                 | †                         |
| Farrington<br>Ohlin and<br>Wilson<br>(1986) | †  | †                                     |                      |                                  | †                                    | †           | †   | †                                | †                               | †                         |

(A) AS MEASURED BY SCHOOL TEACHERS AT THE AGES OF 8 TO 10 YEARS

## IX. Conclusion

A wide range of variables are associated with delinquency, and with many of them there is reasonably good evidence to suggest that they constitute at least part of the causal processes for delinquency development. The empirical research reviewed in this chapter, and summarized in Table I, has highlighted six variables which tend to consistently show up in different studies as principal predisposing factors in the development of juvenile delinquency.

The factors generated most often by the studies reviewed in this chapter can be categorized in two distinct, although not mutually exclusive classes - family and individual variables.

The family characteristics seen to be the most intrinsically related to the development of delinquency were poor family management techniques or child-rearing practices, (marked by harsh or erratic discipline, poor supervision and inconsistent and uncaring parenting), parental conflict, parental criminality as well as low socioeconomic status. In considering the latter characteristic, Rutter and Giller (1983:162) found the evidence to be somewhat inconclusive with respect to whether the association with delinquency was due to the problems that accompany low status, or with the low social status per se. Nevertheless, the association which was seen to

exist can at least serve a useful role in the determination of a target group for prevention programs.

The individual characteristics isolated by the empirical research as most strongly associated with the development of delinquency include three major factors. Primarily, the child's I.Q. at school entry plays an important role in the early onset of delinquency. The research in this chapter suggests that a child with a low I.Q. at school entry is more predisposed to becoming delinquent because not only is that child placed at a disadvantage with respect to the other children upon starting school, but the child's potential for failure is increased and consequently the importance that child will attach to school success and school completion is likely to diminish. The empirical research presented in this chapter also demonstrated a strong association between delinquency and the poor educational achievement of the child as well as the child's own anti-social or troublesome behavior both of which as measured by school teachers at the ages of eight to ten years.

The studies examined in this chapter distinctly suggest that it is possible to isolate the variables most consistently associated with the development of an antisocial, or delinquent, behavioral pattern.

## CHAPTER FOUR

### EARLY CHILDHOOD INTERVENTION PROGRAMS

#### I. The Perry Preschool Project

##### Introduction

The Perry Preschool study is a longitudinal experiment conducted with children born in Ypsilanti, Michigan, a city with a population of 62,732 in 1970, of whom 13 percent were black (Schweinhart and Weikart, 1983: 71). The project was designed to study the long term effects of participation versus non-participation of young disadvantaged children in a good preschool program whose goal was to increase, or develop, the intellectual skills required to succeed in school.

The impetus of the Perry Preschool project was the recognition, by David Weikart and Lawrence Schweinhart, that the existing local school system "was unable, or unwilling, to adjust its curriculum to permit low-achieving children some success in school (Schweinhart and Weikart, 1983:71). This recognition was coupled with the research on school

success which has shown that:

children from low-income families are more likely to fail in school than are children from more prosperous families. It has been said that they are less highly motivated to learn; less confident of their ability to affect their destinies; less well adjusted socially; and less capable of utilizing their intellectual potential because of their poorly developed representational skills and their inefficient cognitive styles (making it difficult to process information and to make the transition from the manipulation of the concrete to the abstract.

(Wright, 1983:12)

The study sample selected, therefore, consisted of 123 black youths who were among the poorest children in the neighbourhood, and who, given their socioeconomic status, were deemed to be "at risk of failing in school" (Schweinhart, 1987:137).

#### Program Design

Program participants were chosen from children of preschool age from five age cohorts between the years 1958 to

1962 whose names either appeared on the family census in the Perry Elementary School attendance area, or who were referred to the researchers by neighbourhood groups, or who were chosen through door-to-door searches. Once identified, the children and their families were screened according to the criteria set out by Schweinhart and Weikart (1983:72). "The first criterion for selection was that parents reported a low socioeconomic status [based on national income levels]. The second criterion for selection was that children's I.Q.'s, tested at project entry by the Stanford-Binet scale, were in the range of 70 to 85 [considered below the national average]".

Beginning in 1962, a first wave of four-year-olds and a second wave consisting of three-year-olds were selected, followed by three subsequent waves of three-year-olds chosen one per year over the next three years. In such a way as to "equate groups on the basis of initial cognitive ability, sex ratios and average socioeconomic status", each wave underwent testing and was then divided into two groups of which, one was arbitrarily designated the experimental group and received a good preschool program, (as determined by the proper implementation of a developmentally appropriate curriculum), while the other received no preschool program and was referred to as the control group. (Schweinhart and Weikart, 1983:73). Finally, to control for potential

secondary effects of the program on families, siblings in different waves were consistently assigned to the same group, either experimental or control.

The intervention program, itself, consisted of having the children attend a preschool program for 2 1/2 hours each morning, Monday to Friday, for the duration of a regular school year which lasts approximately thirty weeks. This schedule was further supplemented by home visits to each mother and child on a weekly basis for an average of 1 1/2 hours (Schweinhart, 1987:139).

The Perry Preschool program was staffed each year by a team of female teachers whose task consisted of implementing the program curriculum to a ratio of five or six children each over a two year period, except in the case of the initial wave of four-year-olds who experienced the program for a year only. The cognitively-oriented curriculum of the Perry Preschool Project "featured educational extrapolations from Piaget's theories of child development - emphasis on classification, seriation, number, space, and time, as well as on the active learning of the child [the project curriculum is described in full detail in the book The Cognitively Oriented Curriculum, by David Weikart et al., 1971]. The teacher's role [therefore] was to help the child think through and articulate these plans and activities" (Schweinhart and Weikart, 1983:79).

Although the control group did not receive the preschool program, the participants were, nevertheless, subjected to the same schedule of tests and interviews. As well, researcher bias was minimized through the non-identification of the group membership of each participant to the data collectors. "In short, both groups received the same amount of scientific attention" (Schweinhart, 1987: 139). Consequently, the researchers could claim that any results obtained were due to their curriculum model and their program and not due to the fact that the children in the experimental group received any preferential attention from the persons charged with collecting the data.

### Findings

Data on the Perry Preschool program was collected up to, and including, the nineteenth birthday of the sample population with no significant attrition of subjects. In fact, "the median rate of missing data across all measures has been only five percent. The age 19 interview was administered to 98 percent of study participants, and school records were found for 91 percent" (Schweinhart, 1987:140).

The major sources of collected information, as reported by Schweinhart and Weikart (1983), were the Stanford-Binet I.Q. tests administered annually from the age of 3 to the age of 10, as well as the Wechsler Intelligence Scale for

Children given in the eighth grade at the age of 14. The children were also rated by their teachers from kindergarten through high school and received an extensive interview at the age of 15 and again at the age of 19. These interviews included self-reported information on delinquency which were compared, in the final data analysis, to the official police and court records. Finally, information was drawn from the State Department of Social Services' Records.

The positive effects of the Perry Preschool education program on school performance and overall behavior were found to be meaningful and lasting in light of the goals of the program to increase the intellectual and cognitive abilities of the children through proper stimulation, and to increase later school achievement and the chance to succeed (Schweinhart and Weikart, 1983).

Although the gains in measurable intelligence were found to be short-lived (i.e. both groups were found to be equivalent by the end of the second grade and thereafter), improvement in the cognitive ability at school entry of the children who attend preschool, as measured by I.Q. tests, was statistically significant during kindergarten and first grade. "The experimental group exceeded the control group by 12 I.Q. points after 2 years of preschool, by 6 points at the end of kindergarten, and by 5 points at the end of the first grade" (Schweinhart and Weikart, 1983:82).

The preschool group was also found to be significantly better in elementary school motivation, as rated by teachers and through self-reports at age 15, scholastic achievement at 14, as measured by achievement tests, teacher ratings of socially acceptable classroom behavior at 15 and on self-reported and official offending at age 15 (Farrington, Ohlin and Wilson, 1986, Schweinhart and Weikart, 1983).

An analysis of the program when the participants were 19 years old revealed the most information on the effects of the program on misconduct and delinquency. At 19, the experimental group had accumulated significantly fewer contacts with the police than did the control group. "Official records indicate that one out of three members of the preschool group (36%) had at some time been arrested, as compared to one out of two members (51%) of the control group" (Schweinhart, 1987:141). As well, the experimental group was found to have a higher rate of non-offenders as well as a lower rate of habitual offenders when compared to the control group. The result is that the difference in incidents between the two groups is even more pronounced than differences in the number of persons. "The preschool group experienced 126 arrests per 100 persons, and the control group experienced 230 - nearly twice as many" (Schweinhart, 1987:141). Finally, as adults, the control group had amassed more than twice as many arrests per 100 people (160) as the experimental group (74 per

100 people).

The analysis of the data also revealed that the experimental group was significantly more likely to be employed at the age of 19 (50% as compared to only 32% of the control group), more likely to have graduated from high school (67% compared to 49% of controls), and more likely to have received college or vocational training (38% compared to only 21% of the control group) (Weikart, 1987:1).

The follow-up on the Perry Preschool project concluded that a good preschool program that properly implements a developmentally appropriate curriculum may have beneficial effects on disadvantaged children who are at risk of failing in school. The Perry Preschool program showed that "preschool participation had apparently increased the percentages of persons who, at age 19, were literate, employed, and enrolled in post-secondary education, whereas it had reduced the percentages who were school dropouts, labelled mentally retarded, on welfare [and involved in delinquent activities] (Weikart, 1987:1). Furthermore, an economic cost-benefit analysis of the program and its long-term effects, performed by Schweinhart and Weikart (1983), "revealed that such a program can be an excellent investment for taxpayers, returning six dollars for every dollar invested in a one-year program" (Weikart, 1987:1). Otherwise stated, the economic analysis performed on the outcome data suggest

that cost figures may be assigned to the gains achieved by the experimental group in the areas of school completion, earnings and employment as well as the decrease in the experimental group in the areas of teenage pregnancies and delinquent behavior. Consequently, even the conservative assumptions made by Schweinhart and Weikart (1983) strongly suggest that early education more than pays for itself in terms of actual return to society and subsequently to the taxpayer.

One may conclude, therefore, that the success of this program, and similar programs, could have a much broader impact on society, in terms of secondary effects, and that its success is in no manner limited to its expressed goal of increasing the opportunity for disadvantaged children to succeed in school. For example, the reduction in the incidence of juvenile delinquency, (arrests by late adolescence had a  $- .240$  correlation with school achievement and  $- .438$  correlation with high school graduation (Schweinhart, 1987:143)), translates into potential savings for victims of crime, to the police and to the courts, as well as the possibility of savings in the area of welfare, due to the increase in the number of people employed, and finally, to a general decrease in the need, and use, of social services (Schweinhart and Weikart, 1983:97). The social benefits of a good preschool program are, therefore, real and persistent, and were recognized by the American Committee for Economic

Development, which is a public policy research group comprised mainly of corporate executives, who stated in their 1985 study "Investing in our Children" that, "It would be hard to imagine that society could find a higher yield for a dollar of investment than that found in preschool programs for its at risk children" (Weikart, 1987:1).

## II. The Early Training Project

### Introduction

The Early Training Project was carried out in Tennessee from 1962 to 1980 by Susan Gray, Barbara Ramsey and Rupert Klaus. The project originated out of concern by the local school officials at the progressive retardation observed in black children in the elementary school of the town. The task, therefore, was to develop an intervention strategy in an attempt to offset this retardation, presuming of course that this condition was due to factors that could be manipulated and not to biological or genetic defects [ie.defects that have occurred due to the inheritance of certain genes or those that have occurred due to some other influence] (Gray et al., 1983:33-35).

The program was designed with a specific mandate to focus on the achievement of the following three goals: first, to reveal what lasting effects, if any, the summer preschool

program and the subsequent home visits had on the experimental group as compared to two distinct control groups; second, to determine early childhood variables that are effective predictors of future adolescent status; and third, to utilize the interview data obtained to generate a descriptive analysis of the characteristics of the study participants and their parents (Gray et al., 1983: 48).

#### Program Design

The program sample was chosen, by house-to-house survey, from two similar towns referred to only as Town A and Town B. The sample selection criteria was based on housing conditions, parental school achievement with respect to the last grade completed, as well as the occupations of both parents. The resultant study sample from Town A consisted of sixty-three children aged 3 1/2 to 4 1/2 years old who were subsequently divided, by random assignment, into two experimental groups and a local control group (Gray et al., 1983).

Town B was selected due to its proximity and socioeconomic similarity to Town A. In a predetermined area of the town in which the children were expected to attend the same elementary school, a house-to-house survey was again conducted to select a sample which would be similar, with respect to the aforementioned criteria, to those already

chosen in Town A. Consequently, a sample of 27 children and their families was chosen in Town B to form a distal, or remote control group, which would be sufficiently removed, or distanced, from the experimental group in Town A as to control for any secondary effects that the program might have on the local control group situated in Town A (Gray et al., 1983:39-40).

The Early Training Project was designed to be implemented in four phases, the first of which consisted of interviewing the participants and the mothers in all four groups. The first experimental group then commenced a ten week summer preschool program which was followed by weekly home visits for the remainder of the year. The second experimental group started their complete program the following June, and the cycle was again repeated such that in the final analysis the first group attended preschool during three summers and the second group twice. While in the first elementary grade, home visits took place biweekly for each experimental group and both were tested with standard intelligence and receptive language tests at the end of the first grade and again at the end of the second year of school.

The third and fourth phases of the project were designed for follow-up testing. "The first follow-up phase (1966-1968) extended the testing to 3 years beyond any intervention and 4 years beyond the last summer program" and

included interviews with the mothers by experienced black female interviewers, as well as standardized performance tests given to the study participants to assess aptitudes, achievement and affective domain [with the latter referring to the ability to show appropriate emotional responses] (Gray et al., 1983:41).

Seven years later the second follow-up phase commenced and ran for a period of five consecutive years. Official school records were obtained and analyzed during this period and combined with standardized adolescent - appropriate tests to measure variables similar to those measured in earlier tests. Two parent interviews, adapted to reflect the age of the children, were also administered within a nine month time span. Finally, data on the individual participants was obtained through three interviews accorded over the five year period of the follow-up phase.

The implementation of the summer preschool program was overseen by two lead teachers, each of whom had four assistants and a group of about twenty children for a ten week period. The program emphasized the use of materials designed to foster perceptual and cognitive skills and was constructed on the basis of two major components. The first component refers to the aptitudes relative to achievement and consists of three specific areas: the first area was language where the emphasis was on the transfer of generalizable information from

one context to another; the second area focused on the development of perceptual discrimination as a necessary condition for learning to read; and the final area emphasized concept development as well as classification and the ability to sequence events (Gray et al., 1983: 36). The second major component, attitudes relating to achievement, was comprised of five categories: "(1) Motivation to achieve in school type activities; (2) Delay of gratification; (3) Persistence; (4) Identification with appropriate achieving role models; and (5) An interest in school-type activities" (Gray et al. 1983:36).

The second aspect of the project took place in the months immediately following the preschool program and consisted of home visits designed to reinforce the aptitude and attitude variables through the encouraged cooperation and participation of the mother in the child's learning process.

### Findings

The final tabulation of data and the evaluation of the program took place in 1980. While a detailed analysis of the program can be found in Gray et al., (1982) the limits and purpose of this paper allow the major findings to be categorized into five general areas for ease of understanding and analysis.

Primarily, with respect to individual intelligence

tests, the results of the Early Training Project reflect those found in the Perry Preschool study. Essentially, while the gains in measurable intelligence were short-lived the verbal and performance test scores significantly favored the experimental group over the control group for a period of four years, or, until the end of the first grade. As expected, these scores regressed to the mean such that no significant differences existed by the time the participants were in their eleventh year of school.

Gray et al., (1982) discerned no significant differences on tests of the affective domain at any point in the program. While there was a consistent trend toward more favorable self-images within the experimental groups, this trend was weak and not statistically significant. The only significant result in the area of affective domain was found to be the socio-emotional adjustment ratings of the high school counsellors which consistently favored the females in the experimental group (Gray et al., 1983:63).

The third area of analysis focuses on the meeting of school requirements and reveals that this is the area in which the most enduring effects of the program could be observed. Although, as mentioned, gains in I.Q. were short-lived, the secondary effects of the program on school performance appear to have endured. The number of high school graduates among the groups did not differ significantly,

except in the case of teenage pregnancies, where the number of pregnant teenagers who either completed the school year or returned to graduate was significantly higher in the experimental group, but rather the major finding was with respect to special education placement. "Only two children in the experimental group of 41 were placed in an EMR class, whereas 7 of 21 in the control group were so placed, a difference significant at the .004 level" (Gray et al., 1983:54).

Gray and her colleagues identified five sets of variables that were significant early predictors of status in young adulthood. These predictors were, "early demographic status, (particularly low income families and those living in low-income housing), pretest Stanford-Binet at age 3 1/2 to 4 1/2, treatment group (especially I.Q. gain), and early school performance (notably GPA in the fourth year)" (Gray et al., 1983:63). These same five variables were shown to explain about 35 percent of the variance with respect to GPA in high school, last grade completed and the number of years spent in school between the experimental and the control groups. Finally, although the interview data collected provided an information bank for the study of individuals similar to the participants in the program, the data, itself, was generally seen to be of little use with respect to treatment comparisons.

In summary, the Early Training Project demonstrated positive effects of preschool intervention on its participants. The early predictors of adolescent status are supported by the findings of major longitudinal studies (such as, Wolfgang, Figlio and Sellin (1972), West and Farrington (1977), Loeber and Dishion (1983) and Farrington, Ohlin and Wilson (1986)) and thus suggest that had delinquency been measured, these variables would have been seen to play a significant predictive role. Furthermore, the results of the intervention program appear most convincing with respect to assignment to special education classes which suggest an increased ability to survive in age and peer appropriate classes. This variable alone has far reaching implications "not only for the academic performance of the children, but for socio-emotional and cost aspects as well" (Palmer and Anderson, 1979:447).

### III. The Harlem Study: Effects by Type of Training, Age of Training and Social Class.

#### Introduction

The Harlem study was designed and implemented by Francis Palmer between the years 1964 to 1977 to answer certain specific questions. Primarily, could a program of early educational intervention produce significant lasting

effects in the participants when compared to a control group who would be subjected to the same amount of scientific attention? Secondly, would the age of the participants at the start of the program have an effect on the benefits derived and finally, would the intervention or the age variables produce differential effects on children of middle and lower class parents? (Palmer, 1983:206).

#### Program Design

Using hospital birth records, a potential participant pool was drawn who met the following basic criteria: both parents had to be black and the mother had to be between the ages of 15 and 45 and free of any drug addictions or communicable diseases. The child also had to be born healthy and free of any visible abnormalities (Palmer, 1983:210). The subject pool was then cross referenced with the records at the post office to determine those that could still be located. A final group of 579 Alphas (children to be trained at 2 years) and Gammas (to be trained at age 3), and 270 nonparticipating control Betas were selected (Palmer, 1983:211).

Through a process of introductory letters and follow-up interviews, and allowing adjustments for attrition and refusal, a final program sample, consisting of 119 Alphas, 115 Gammas and 68 Betas, was chosen (Palmer, 1983: 215).

Initially, the study was conceived with one experimental and two control groups per age based on the following treatments:

1. Concept training, where a curriculum was devised and organized to teach specific concepts using specific procedures.
2. Participating controls, children who would attend the centre with identical schedules, and staff, but who would not be exposed to the Concept Training curriculum.
3. A non-participating control group, selected from the same population pool and assessed annually, but who did not participate in either program described previously.

(Palmer, 1983:218).

However, initial post-program assessment revealed measurable beneficial effects in the participating controls of both age groups when compared to the nonparticipating controls, which necessitated accepting the former as an

intervention in itself. The participating control group was therefore referred to as a "Discovery Group" (Palmer, 1983: 219) for although they were deriving measurable benefits, these were not due to the Concept Training Curriculum and hence could not be considered the experiment group per se but rather could continue as a control group separate from the nonparticipating control group.

Previous studies at the Harlem Research Centre provided the necessary ingredients for the development of the Concept Training curriculum. That is, these earlier studies provided the required age-appropriate concepts and the method by which these concepts should be taught in ascending order of difficulty. As such, while each experimental group attended the centre twice weekly for one-to-one structured training sessions with a staff member for 50 minutes, the concepts were both, more difficult for the three year olds in general, while at the same time tailored to the needs of each individual (Palmer, 1983).

The Discovery Group, on the other hand, received equal attention with respect to the frequency of visits, the one-to-one staff attention and the availability of learning materials, yet was deprived of the structured training provided to the experimental group by the instructors. The role of the instructors within the Discovery Group was limited, more or less, to that of a sounding board for the

child's inquiries, or a modelling role. As such, while the instructors did respond to the children, they did not initiate conversations or manipulate conversations in any way that might resemble teaching the concepts. The goal was thus to measure the efficacy of child-initiated learning.

The centre's contact with the nonparticipating control group was limited to the periods of assessment. These occurred at the beginning of the program and once again at the ages of 3 years 8 months, and 4 years 8 months such that the average scientific attention given the control participants was twenty hours which was not significantly different from the average amount of assessment time accumulated by the experimental groups prior to entering elementary school (Palmer, 1983:220).

### Findings

The results of the program were generated from data collected through comparisons of all three groups and measurements taken annually from the age of 2 years 8 months to 4 years 8 months, as well as an examination of elementary school records at the age of 13. The variety of standardized performance measures utilized in the accumulation of the data were varied each year to reflect the age of the child at the time of assessment (Palmer, 1983:221).

Throughout the program, strong and persistent dif-

ferences were found by social class on every measure. In sum, "despite the fact that less than 10% of the original sample of Harlem boys would have been classified as middle class by national norms", those that were, in the context of the program, consistently outperformed those that were classified as lower class (Palmer, 1983:233).

Age of training and type of training, however, made no discernible difference in the study with respect to any of the variables measured as both were effective (Palmer, 234).

Using the Revised Wechsler Intelligence Scale for Children, Palmer noted statistically significant differences in I.Q. at each stage of measurement with the experimental children averaging 8 points higher than the controls (Palmer, 1977). A result that was consistent regardless of age of training.

Similarities between age of training and other measures also exist. The "two-year-old experimental group at grade 7 performed significantly better than the controls in the proportion reading at grade level or better (p.03) and in mathematics achievement. The three-year olds, at grade 5, performed significantly better than their controls in I.Q. and mathematics achievement [as well as] reading at grade 7" (Palmer and Andersen, 1979:449. With respect to grade retention, the Harlem study showed that the experimental children were half as likely to be retained regardless of age

of training.

In sum, therefore, the Harlem study demonstrated that not only does minimal intervention produce durable effects, but that these effects approach the range and significance of those found in other intervention programs designed to include significantly more hours of intervention (Palmer, 1983:234). The lack of differential effects of the type and age of training can be attributed primarily to the one-to-one staff ratio and the ability of the instructors to tailor the intervention to the needs of the child. This is not to say, however, that the substantial benefits could not be achieved with an increase in the staff-to-child ratio using the same treatments, especially if parental input was sought and encouraged as opposed to limiting them to an observational role during the first six visits as the design of the study dictated.

Although the Harlem study did not include a long-term follow up phase, the consistency of the results obtained with respect to school achievement and increased I.Q. as compared to the other programs in this chapter strongly suggest that had this follow-up phase been included the results would have been comparable to those obtained by Schweinhart and Weikart (1983), Gray et al. (1983) and Levenstein et al. (1983).

IV. The Mother-Child Home Program of the Verbal  
Interaction Project

Introduction

The Mother-Child Home Program (subsequently referred to as the MCHP) was carried out between the years 1967 to 1976 in an attempt to prevent the disadvantage experienced by low income children in school. The program was conceived as a minimal intervention method with the assumption that education and emotional difficulties could be prevented through the fostering of cognitive and socio-emotional growth between the mother and her child. The program, itself, was kept as simple as possible, and focused on the potential of the mother-child relationship rather than expert intervention which was maintained at a strict minimum.

Program Design

The study sample was chosen yearly in Nassau County and the participants were selected for inclusion in the experiment if they met five basic selection criteria: "(1) eligibility for low income housing; (2) residence in rented housing; (3) occupation less than skilled; (4) neither parent with an education above high school; and (5) child's testability in English" (Levenstein et al., 1983:241).

The potential program participants were recruited

through a variety of techniques. Throughout the quasi-experimental stage of the program (1967-1972) the experimental and control groups were recruited through introductory letters with a door-to-door follow-up within areas randomly designated as experimental or control housing projects. During the true experimental stage (1973-1976) "potential participants were identified from referrals by public and private agencies, private individuals and from school census lists", and then randomly assigned to either the experimental or control groups (Levenstein et al., 1983:242).

The quasi-experimental design employed during the years 1967 to 1972 evaluated variations of a one and two year treatment program through data collected by comparing nine different groups. Group 1, consisted of three-year-old children who received the MCHP for one year only. Group 2, recruited from the same area, consisted of two-year-old children who received the same MCHP plus an abbreviated version of the second year of the MCHP (9 as opposed to 46 home sessions). Group 3, stemmed from a different area and was formed of two and three-year-olds who received a placebo treatment in the first year plus the one year version of the MCHP in the second year (Levenstein et al., 1983:243).

Groups 4, 5 and 6 represented two-year-olds who entered the program during the years 1968 to 1970 with the first two groups receiving the full two year MCHP. Group 6,

on the other hand, experienced a reduction in home visits of 50 percent during the second year of treatment. Finally, groups 7, 8 and 9 were formed as comparison, or control groups, for the previous six. The first of these consisted of two and three-year-olds recruited in 1967. Group 8 was established the same year, yet consisted of four-year-olds and group 9 represented a group of six-year-olds recruited on the basis of the same selection criteria in 1972 (Levenstein et al., 1983:243).

The following years, 1973 to 1976, focused on the change from the quasi to the true experimental design such that sex and sampling site variables might be better controlled and balanced across treatment conditions. The four cohorts during these years were recruited from four new locations in Long Island and the participants were then randomly assigned to experimental or control groups. The program was designed such that the experimental groups in 1973, 1975 and 1976 would receive the full two year MCHP and would subsequently be compared to control groups of the same years who were subjected to evaluation services only. The groups in 1974, however, were devised to evaluate the effectiveness the two year MCHP with respect to a similar group receiving all aspects of the two year MCHP except the home visits (Levenstein et al., 1983:244).

The MCHP treatment, in its original form, is

situated in the child's home and consists of twice weekly, half-hour home visits covering a period of two school years. While the number and intensity of the visits can be varied somewhat to fulfil the mother's needs, a preset maximum of 46 visits a year was established that would include the provision of a structured curriculum, as well as the distribution of twelve books and eleven toys, known collectively as "Verbal Interaction Stimulus Material (VISM)" (Levenstein et al., 1983:237), at the rate of one per month for a year.

The staff, referred to as "Toy Demonstrators" (Levenstein et al., 1983:237), are paid or volunteer women who are provided training and supervision prior to, and throughout the program by a qualified program director. In accordance with the goals of the curriculum, "... to enhance the mother's parenting skills and self-esteem, and to foster the conceptual development of the child", the demonstrator's role consisted of establishing and encouraging early involvement of the mother in the home sessions, and subsequently, to assume a role of an informed, passive observer (Levenstein et al., 1983:248).

### Findings

In order to measure the program's ultimate goal of preventing school-entry disadvantage, follow-up data was

collected and analyzed on five general areas that included I.Q. measurements, reading and arithmetic skills, teacher evaluations of academic problems and classroom behavior, as well as, indices of grade failure and, or, special class placement (Levenstein et al., 1983:252).

In the quasi-experimental groups, Levenstein et al., (1983) found statistically significant results in favor of the MCHP groups on all analysis of reading and arithmetic achievement tests as well as with I.Q. scores at the age of five. Furthermore, the beneficial effects of the program on these variables appeared to be proportional to the amount of treatment received. Although no statistically significant effect of the program was observed, the evidence does suggest a consistently positive correlation between MCHP participation and both advancement in school grades, as well as, teacher ratings of the presence of severe academic problems (Levenstein, 1977).

With respect to the original program goals, the results of the quasi-experimental phase were seen to be educationally significant. As well, the results indicate "that I.Q. differences at age 4 predicted achievement test differences and better performance in school at age 8, according to both teacher's and administrative criteria" (Levenstein et al., 1983:259).

In the true experimental cohorts the effects of the

MCHP were seen to be beneficial on I.Q. yet to a different magnitude than that achieved in the quasi-experiment, and not significantly different from the effect achieved with the VISM program alone (1974 cohort). The major gain, in the true experiments, was reflected in the maternal interactive scores which referred to the ability of the mother to understand and implement the desired interactive behaviors, which Levenstein et al., (1983:260) hypothesize, "will mediate later I.Q. and school performance".

In sum, therefore, the combined results of this program strongly suggest that the desired maternal behavior can be successfully conceived in a program and implemented in such a way that the program will provide beneficial short-term effects on I.Q. as well as, provide, at least partially, a basis for the prediction of future school performance.

## V. Conclusion

The Perry Preschool study, the Early Training program, the Harlem study and the Mother-Child Home program were all independently conducted programs which were part of a group called the Consortium for Longitudinal Studies formed in 1975 (Lazar, Darlington, Murray and Royce, 1983).

As can be seen in Table 2, on page 61, which outlines the background characteristics of the study sample for each program, the majority, if not all the participants in certain studies, are black children from families of low socioeconomic status. This choice of study sample is consistent with the longitudinal survey results described in the previous chapter that concluded that the low socioeconomic status of the parents was a predictive variable in the genesis of juvenile delinquency. Furthermore, the overall success of the studies in this chapter reinforce the conclusion that the association between socioeconomic status and the development of delinquency can serve, at the very least, a beneficial role in the determination of a target group for which preventive intervention programs may be developed and implemented.

Table 2Background Characteristics of the StudyParticipants and Their Families (a)

| Project                 | %<br>Program | %<br>Black | %<br>Female | %<br>Male | Mean<br>Educ.<br>of<br>Mother | Mean<br>SES<br>(b) | Mean<br>Pre<br>test<br>I.Q. |
|-------------------------|--------------|------------|-------------|-----------|-------------------------------|--------------------|-----------------------------|
| Schweinhart/<br>Weikart | 47.2         | 100.0      | 41.5        | 58.5      | 9.4                           | 68.2               | 79.0                        |
| Gray et al.             | 46.8         | 100.0      | 55.8        | 44.2      | 9.2                           | 69.5               | 87.7                        |
| Palmer                  | 78.9         | 100.0      | 0.0         | 100.0     | 11.2                          | 58.2               | 92.2                        |
| Levenstein<br>et al.    | 71.5         | 95.2       | 46.2        | 53.8      | 10.5                          | 64.0               | 93.6                        |

(a) Adapted from Darlington, Murray and Royce, 1983:417

(b) Refers to Hollingshead Index of Social Position, 61 to 77 indicates lowest social position (Darlington, Murray and Royce, 1983:417).

The results of the individual studies tend to have an even more pronounced impression when presented cumulatively, as is the case in Table 3, on page 63.

From this Table, one can see the four major findings replicated across the studies. The preschool programs have documented an increase in individual scores on standard intelligence tests at school entry and, as the individual studies reported, this effect remains significant for an average three to four year period following the intervention. Secondly, those programs that collected information on special education placements demonstrated that preschool graduates were significantly less likely than their control peers to be placed in a special education class. Furthermore, the studies cumulatively indicate that preschool graduates were more likely to consistently meet school requirements and hence, were less likely to be retained in a grade. Finally, those children that did not receive a good preschool program were significantly more likely to fail in their attempt to complete high school. Although the long term and predictive effects of most programs are not presented in Table 3, an analysis of successful preschool programs by the Consortium for Longitudinal Studies (1983) concluded that:

Table 3

Documented Effects of four Preschool Programs for  
Disadvantaged Children (a)

| Finding per study                                      | Preschool | No<br>Preschool | "p" (b)<br>Significance<br>Level |
|--|-----------|-----------------|----------------------------------|
| <b>Intellectual Ability at<br/>school entry (I.Q.)</b> |           |                 |                                  |
| Perry Preschool  | 94        | 83              | .0001                            |
| Early Training   | 96        | 86              | .0001                            |
| Harlem   | 96        | 91              | .01                              |
| Mother-Child Home                                      | 96        | 103             |                                  |
| <b>Special Education<br/>Placement</b>                 |           |                 |                                  |
| Perry Preschool  | 16        | 28              | .039                             |
| Early Training   | 3         | 29              | .004                             |
| Mother-Child Home                                      | 14        | 39              | .005                             |
| <b>Retention in Grade</b>                              |           |                 |                                  |
| Perry Preschool  | 35        | 40              |                                  |
| Early Training   | 53        | 69              |                                  |
| Harlem   | 24        | 45              | .006                             |
| Mother-Child Home                                      | 13        | 19              |                                  |
| <b>High School Dropouts</b>                            |           |                 |                                  |
| Perry Preschool  | 33        | 51              | .03                              |
| Early Training   | 22        | 43              | .08                              |
| <b>Additional Perry<br/>Preschool Findings</b>         |           |                 |                                  |
| Postsecondary Enroll.                                  | 38        | 21              | .03                              |
| 19 yr. olds employed                                   | 50        | 32              | .03                              |
| 19 yr. olds on welfare                                 | 18        | 32              | .04                              |
| Arrests per 100 people                                 | 126       | 230             | .0001                            |

(a) Adapted from Lawrence J. Schweinhart, 1987:144

(b) "Statistical likelihood, expressed as proportion of 1.00, that the difference between the groups could occur by chance" (Schweinhart, 1987:144)

Preschool graduates have higher self-esteem and value achievement more than their controls. The program graduates have higher occupational aspirations and expectations than do their controls, and these are predictive of their actual achievement. [Furthermore], indirectly, the preschool experience increased labour market participation in late adolescence and the early adult years.

(Lazar, 1983:462).

The additional follow-up of the Perry Preschool project succeeded in reinforcing the long term benefits gained from good preschool programs. It documented significant differences in the number of preschool graduates employed at nineteen years of age compared to their control peers, the significantly decreased likelihood of preschool graduates being on welfare at nineteen, as well as the increased likelihood of them being enrolled in post secondary education when compared to those that did not received a preschool program. Furthermore, the Perry Preschool program was unique in the accumulation of data with respect to the effects of a preschool program on ensuing delinquency rates. In sum, the preschool graduates committed significantly fewer delinquent acts according to both official and self-reported data, and the control group that received no preschool program experienced almost twice as many arrests per 100 people as did the group that received a good preschool program. Finally, the Perry Preschool program was the only one of the four

studies in this chapter to have performed a cost-benefit analysis of the preschool program. The New York Times, in their September 06, 1987 issue (see Appendix A), reinforced the findings of the Perry Preschool program by reporting "that \$1 invested in quality preschool education would return nearly five times that much because of lower costs of special education, public assistance and fighting crime" (Fiske, N.Y.T., 1987:27).

In conclusion, the Perry Preschool project was exceptional in its focus on certain areas of data collection, notably with respect to the effects of the program on delinquency rates. However, the results obtained by the other programs with respect to the variables relating to the intellectual ability and the school achievement of disadvantaged children in particular, were similar. Therefore, it is not unreasonable to expect that had they also accumulated data on the effects of their programs on delinquency rates, these too would be similar and supportive of the results obtained by the Perry Preschool projects.

The benefits of the programs cited in this chapter, and similar programs, have been recognized by the United States Conference of Mayors who state in their Status Report on Children in America's Cities (1988:5) that, "for the benefit of children, the most important policy decisions that could be made by the next President of the United States would be

to increase the availability of day care, provide adequate funding for family and children's programs, and make a greater investment in education".

## CHAPTER FIVE

### IMPLICATIONS OF THE FINDINGS FOR CANADA

In as much as the research and intervention studies examined thus far have been carried out outside of Canada, the policy implications for Canada cannot be considered, necessarily, as being obvious. Applying McMahon, Pugh and Ipsen's (1960) model of causality to the prevention of delinquency the Canadian research done in this field may be examined to establish the feasibility of implementing such a program in Canada. Building on what Canada is already doing the accumulated knowledge may be used to design a model program consistent with the best characteristics of the research and intervention studies examined.

The focus of this research paper is the study of children, or more specifically those children who, due to the presence of specific factors as outlined in this paper (i.e. low I.Q., low socioeconomic status, poor educational achievement, ineffective parents and so on), are predisposed to developing a pattern of behavior that would lead them to become persistent juvenile offenders. Those societies have habitually limited themselves to attempting to control after

the crime has been committed through counselling, rehabilitation, and, or, incapacitation. Several of these programs, especially those that have "included as a target of their intervention not only the offender's environment or feelings or behavior, but his cognition: his reasoning, attributions, understanding and values" (Ross and Fabiano, 1987;3), have been effective in reducing the incidence of future criminal behavior. However, the focus of these programs do not allow them to affect the initial occurrence of a criminal act. Therefore, this paper hypothesizes that if a preventive approach to juvenile delinquency is adopted it may be a more effective approach to reducing the incidence of juvenile crime.

The assumption of a preventive approach is that juvenile delinquency is the product of a cause and effect relationship between certain variables. McMahon, Pugh and Ipsen (1960:2) state that " the longer the association exists [between these variables] and the greater its constancy and replication over time, and between studies, the more confidence one may have in the continuation of this relationship in the future". In the case in point, the factors deemed to be predisposing variables in the early onset of the development of juvenile delinquency, and the strength of their association with delinquency, is clearly demonstrated in the research as is the fact that these variables do tend

to occur in a relatively consistent pattern recognized by McMahon, Pugh and Ipsen (1960:17) as a "chain of causation".

This "chain of causation" allows an intervention to be specific to those factors which, if changed, may have a direct effect on the outcome (ie. persistent juvenile delinquency). For, "to effect preventive measures, it is not necessary to understand causal mechanisms in their entirety. Even knowledge of one small component may allow some degree of prevention" (McMahon, Pugh, Ipsen, 1960:18).

Therefore, it is not incumbent upon one to state that the variables addressed by the program are the sole causes of the development of juvenile delinquency. Nor is one required to possess an expert understanding of the interrelationships which may exist between variables to design a preventive program. Rather, one is simply obliged to demonstrate that these factors do exist in a causal relationship with juvenile delinquency, and that their relationship is such that by altering one or more of these factors, the effect, juvenile delinquency, will also be altered.

This argument assumes exceptional importance in the context of the research analyzed in this paper. As can be seen in Table 4, the longitudinal research isolated six variables which were seen to play a major role in the genesis of juvenile delinquency.

Table 4Comparison of Empirical Research and Intervention Studies

| Empirical Research Conclusion on Predisposing Factors   | Factors Targeted by Preschool Programs   |
|---|--|
| Poor family, management techniques<br>Parental criminality<br>Low socioeconomic status<br>Low I.Q. of child<br>Poor educational achievement<br>Poor school behavior | Low socioeconomic status of parents<br>Low I.Q. of child<br>Poor educational achieve<br>Poor school behavior |

The preschool programs, on the other hand, focused mainly on the individual characteristics of the children at risk and used the socioeconomic status of the parents solely as a determinant variable in the choice of a target group rather than attempting to alleviate their low socioeconomic status through any type of intervention. Nevertheless, consistent with the argument for a causal model of prevention, the Perry Preschool program, the only program to incorporate data on delinquency rates, did demonstrate significant program effects on later participation in delinquency through focused intervention on the identified individual characteristics.

In their review of the empirical literature, Rutter and Giller (1983:300) stated that "there are pointers to the

possibility that well-planned preschool programs might have educational benefits with [only] some slight spin-off effects on delinquent behaviour". However, considering the data presented in this paper, this would seem to be an unfairly negative conclusion about the potential of preschool programs to positively affect delinquent behavior. In fact, in the context of the other programs, Schweinhart and Weikart's (1983, 1987,) findings become even more compelling. In support of preschool programs Farrington (1985:12) argues that:

Every well-designed "Head Start" type preschool early intervention project aiming to enhance children's cognitive development showed that the early intervention programs had beneficial effects on school success in the long term, especially in increasing the rate of high school graduation and in decreasing the rate of special education placements. Schweinhart and Weikart's project was the only one to collect delinquency data, but the consistency of results in all projects showing beneficial effects on school success suggests that their delinquency results might well be replicable.

Offord (1987:34) goes one step further in his recognition of the usefulness of preschool programs in the prevention of delinquency by stating that, "based on the data in hand, first-rate preschool programs for children are a promising primary prevention intervention for conduct disorder".

The research on preschool programs in the United States has been promising and the task is now to determine whether or not similar intervention is feasible in Canada where the research is extremely limited. Although Tremblay et al., (1986) have obtained some positive intermediate results in their Montreal longitudinal study, their study sample consisted of children older than those who participated in the American preschool studies and hence the application of the study to this paper is limited. However, there is one Canadian study on Compensatory Education in the preschool that was carried out between 1973 and 1978 at the University of Western Ontario by Mary J. Wright (1983).

This program was based, theoretically, on the cognitive-developmental theories of John Dewey (1945) and Jean Piaget (1963), and practically, on the High/Scope Curriculum model of child initiated learning developed by David Weikart (1971) in the Perry Preschool program.

The University of Western Ontario (UWO) program was implemented in the Laboratory Preschool of the University with

the goal of testing the effects of compensatory education as delivered to groups of children for one year, two years, or not at all as in the case of the control group. The preschool served two groups, one in the morning and one in the afternoon, for 2 1/2 hours each day Monday through Friday, for the duration of a school year (i.e. mid-September to mid-June). While each group was approximately balanced for sex, they were heterogeneous in age, ranging from 2 years, 10 months to 4 years, 8 months, as well as in socioeconomic status ranging from high to low income status (Wright, 1983). Through a literature review, as well as through observations and assessments of the study subjects during the first year, it was found that the largest differences between the children existed in the conceptual and cognitive areas of development with the high income children considerably favored. It was concluded, therefore, "that what these [low-income] children needed was help in improving their self-management skills, their problem-solving and cognitive styles and strategies, and, above all, their representational skills and conceptual abilities" (Wright, 1983:12).

The program was evaluated for the final time during the fifth year of schooling or grade four. However, due to sample attrition, the final year in which data was collected on a substantial proportion of the sample (i.e. 73%) was during grade two, or the third year of schooling. Overall,

the results replicated those found in the American preschool studies. More specifically, the program found significant, and lasting, differences in cognitive and intellectual measures as measured by Stanford-Binet I.Q. tests. At the end of their third year in school, "the two preschool groups (A and B) continued to maintain their preschool I.Q. gains. In group A the mean I.Q. was 104.2 (SD 13.0). At the end of preschool the mean I.Q. of this sample was 101.3 (SD 12.1). In group B the mean I.Q. was 103. At the end of preschool it was 102. Thus, there was no evidence of decline in the I.Q.s of the groups" (Wright, 1983:323). The control group, on the other hand, had a mean I.Q. of 94.2 which was similar to the 93.8 this sample scored at the end of kindergarten.

The program also found significantly beneficial effects of the preschool program on academic achievement tests as well as social adjustment in the classroom as rated by the teachers each year. Finally, based on the accumulated evidence, Wright (1983), concluded that a two year preschool program would produce more beneficial, and longer lasting, effects especially with respect to those children considered at risk, or otherwise stated, from families of low socioeconomic status.

Although this is an isolated example of the application and experimental evaluation of a preschool program in Canada, the similarity of the results obtained by Wright

(1983) with all the American preschool programs analyzed in this paper, strongly suggests that it would be feasible to utilize a preschool intervention program in Canada in an effort to reduce the prevalence of juvenile delinquency, providing, of course, that a proper program model is developed and adopted.

It is in this area of program development that the longitudinal survey results and the findings of the American preschool programs assume their most important role with respect to Canada, and Ottawa in particular in the context of this research. An embodiment of the conclusions and recommendations of Schweinhart (1987), Weikart (1987), the Consortium for Longitudinal Studies (1983) and a compendium of the longitudinal surveys, yields the following six features as required components of a good preschool intervention program:

- (1) that the program be targeted to the children of low socioeconomic status as they are considered to be most at risk of failing in school;
- (2) that the program be staffed by people who have proper and adequate training in the area of early childhood education and development;

- (3) that the program incorporates a validated, cognitively-oriented curriculum (as demonstrated in the research eg. Ross and Fabiano, 1987) with specific goals derived from the principles of child-initiated learning, as this approach is less likely to foster the dependence observed in children subjected to a direct-instruction program (Weikart, 1987, Wright, 1983);
- (4) that the proper support systems exist to maintain the curriculum on a daily basis including planning, leadership and evaluation (Schweinhart, 1987);
- (5) that the staff to child ratio be maintained as low as possible, and in any event not to exceed one-to-eight (Schweinhart, 1987; Consortium, 1983);
- (6) that collaboration and close contact between the teaching staff and the parents be established and strongly maintained throughout the program including, but not limited to, the teaching of parental child-rearing and family management techniques (Farrington, 1985; Rutter and Giller, 1983; Patterson, 1982).

The research that has been carried out and examined suggests that the inclusion of the above components in a pre-

school intervention program for disadvantaged children may enhance their cognitive abilities and their chance to succeed in school. They may, as well, produce long term secondary effects with respect to increased employment, decreased welfare dependency and a reduction in the incidence of juvenile delinquency and the social costs which tend to accompany crime. Finally, this elaboration of the desired features of a preschool intervention program provides a basis upon which the existing services in the city of Ottawa, as described in the following chapter, may be compared and contrasted.

CHAPTER SIX  
AN OVERVIEW OF THE SERVICES PRESENTLY AVAILABLE IN

Ottawa Elementary Schools

There exists, in the city of Ottawa, both private and public elementary schools which incorporate preschool or prekindergarten programs into their curriculum. As the name implies, the private schools tend to be more expensive than the public schools and given that the goal of this paper is to cater to the needs of the disadvantaged children in Ottawa, it would be superfluous in this context to expand on the services offered by the private schools.

The public elementary schools, on the other hand, are governed by four different boards of education in Ottawa: the Ottawa Board of Education (O.B.E.); the Carleton Board of Education (C.B.E.); the Ottawa Roman Catholic Separate School Board (O.R.C.S.S.B.); and the Carleton Separate School Board (C.S.S.B.). Despite this division in power, however, they must all, in turn, answer to the Ontario Ministry of Education. As such, while the four Boards may differ slightly in the implementation and methods of child evaluation in their

preschool, or junior kindergarten classes, their underlying program philosophies are all based on the same Ontario Ministry of Education guidelines (Ontario, 1985). Consequently, to present the junior kindergarten programs of each individual Board would lead to much unnecessary repetition. The procedure chosen, therefore, is to present a summary of the research performed by the Education Ministry following which the general philosophy adopted by the school boards will be examined.

In 1975, the Ontario Ministry of Education issued curriculum documents entitled, The Formative Years and, Education in the Primary and Junior Divisions, to strengthen and encourage continuity of communication and planning across both Divisions. Briefly stated, these two documents emphasized the need to adapt programs to suit the needs and abilities of individual children, and to recognize and promote both individuality in learning styles as well as natural methods of learning such as through structured and free play (Ontario, 1985:5).

In 1977, a Commission of Inquiry into the Education of the Young Child was conducted by Laurier Lapierre. The report, To Herald a Child (1980), brought to light indications of a lack of consistency, across the Boards, in the application of the principles advanced by the Ministry (Lapierre, 1980:25). A subsequent task force formed by the

Ministry discovered similar findings as well as additional problems related to a lack of qualified teaching personnel at the junior and senior kindergarten levels, as well as a lack of program continuity in many jurisdictions (Ontario, 1985:6).

In response to these findings, the Ministry of Education initiated the Early Primary Education Project in 1984 which was given the mandate to examine the education provided for young children in Ontario and to propose new directions to follow. Essentially, the project researchers endorsed the philosophy of early childhood education derived from the works of Jean Piaget and Erik Erikson, and promoted the benefits of compensatory education programs as found in their analysis of the Perry Preschool Project.

The Early Primary Education Project also recommended the development of child learning profiles to aid in the individualization of programs, as well as several recommendations with respect to minimum requirements and the specialization of teachers. Further, the project recommended, and outlined a comprehensive implementation plan to ensure:

that the Primary division as defined in the Education Act be organized as an integrated planning unit to facilitate continuity and consistency in

the provision of programs and services. (Ontario, 1985:33).

These recommendations regarding the necessity of adequately trained staff, proper communication and child-specific programs are all consistent with the required components of a good preschool program, as outlined in the previous chapter.

The result of the Ministry funded research over the last thirteen years is evident in the philosophies of the junior kindergartens across the four Boards of Education in Ottawa. Adopting an approach to preschool education similar to the cognitively-oriented curriculum (Weikart et al., 1971) that developed from the Perry Preschool Project, their programs tend to be child-centred, activity oriented and quite experiential in nature. They also acknowledge both structured and free play as essential to the learning process of children, and they plan their programs around the developmental behaviors and characteristics of four-year-old children. The junior kindergarten teacher is also expected to work closely with the parents and other professionals to identify the specific needs of each child and to implement an appropriately individualized program.

The general goals of the programs established in the four Boards are to promote socio-emotional development, physical development, intellectual development and the

development of the language and communication skills required of children in subsequent school years.

Once registered in junior kindergarten, the child and the parents will meet the teacher prior to the beginning of the school year to exchange information related to the development of the child and to note areas of strength or concern (C.B.E., 1987). To reinforce their emphasis on the need for individualized programs, the four Boards have adopted a practice of staggered school entry in the junior kindergarten classes which also facilitates the development of a trusting relationship between the teacher and the child, and permits individualized introductions to classroom routines (O.B.E., 1983).

The children are subsequently expected to attend the school daily, Monday through Friday, for 2 1/2 hours a day of time-structured learning. All schools maintain a maximum ratio of one teacher to twenty children, yet they will provide a teacher's aide when requested and if possible, and the teachers seek and encourage participation of the parents as volunteers.

The children are assessed on the basis of observational data accumulated by the teacher or the teacher's aide, which is then communicated to the parents through a series of three formal meetings throughout the school year. These meetings are arranged to accommodate the parent's

schedule and while they are the only mandatory meetings, informal meetings with the teacher, or classroom observation by the parents, is strongly encouraged.

### Day Care

Although the Federal Government is promoting a national day care policy a detailed analysis of the strategy would be of little use at the present time owing to the uncertainty the future holds for this policy. However, the potential benefits of a national program will be addressed in the ensuing chapter.

Consequently, the day care programs in this section are limited to those programs that are licensed in the province of Ontario and situated in a facility designated for such a purpose. Excluded, therefore, from the analysis are those day care programs which are privately operated in the homes of various people, which leaves approximately eighty licensed day care facilities in the Ottawa area that offer full and half-day programs to children ranging in age from eighteen months to five years old, on the average, with some exceptional facilities servicing children under the age of one.

Due to the licensing requirements in the province of Ontario, the physical design of most facilities is quite similar as the amount of space per child, and the essential structures within a centre, are both legislated. Each day care centre is required to be able to provide the children they serve with ample opportunity for active and quiet play,

indoors and outdoors, for self-directed activity and structured time, and to provide a consistent approach to meals and sleep times.

Although each day care centre has its own personal philosophy and goals, they all stem from the same desire to ensure a logical progression of satisfying learning experiences that will favor the development of the child's total personality, from his physical development to his intellectual, affective and social-emotional development, and subsequently through the acquisition of such skills, to the development of the child's sense of independence (Canadian Mothercraft, 1988).

The primary focus of day care centres is seen to be the emphasis placed on helping the individual to grow and develop a consciousness of himself in order to be able to extend this knowledge and understanding of himself to the world around him.

Through this progressive development, the day care centre aims to promote feelings of trust, confidence, friendship, self-control and respect for one's self as well as respect for others and property. The daily use of structured activities combined with spontaneous play, limited only by the child's imagination, permits the day care centre to encourage the child's sense of curiosity and the natural desire to explore and discover new areas of understanding.

Finally, the unique social opportunity found in a day care centre tends to promote an equilibrium between the child's individuality and the demand placed upon him by virtue of being a member of a group (Brochu, 1988).

It would be impossible to elaborate on any specific curriculum followed in a day care centre, for each individual staff member, responsible for a particular age group in a centre, is also responsible for selecting and designing the structured activities best suited to promote the goals and the philosophy of the centre with their particular children (Canadian Mothercraft, 1988). As a result, this, and the fact that the development of each child requires appropriate individualized activities, renders the list of activities and curriculum models almost endless in each centre. The staff, therefore, must possess specialized backgrounds in early childhood education, either at the college or university level, which would satisfy the model program criteria of adequately trained staff and an appropriate, validated curriculum. Furthermore, consistent with the model program requirements, each day care centre has a designated supervisor who oversees the implementation of the curricula as well as the ongoing evaluation of the staff (Brochu, 1988).

The children that attend the day care centres range in age, in the average centre, from eighteen months to five years old, and are grouped according to their age and the

developmental stage they have achieved, without regard to socioeconomic status. While the ratio of children to staff is normally 8 to 1, this ratio may vary as low as 4 to 1 for infants or as high as 12 to 1 for older children.

The majority of the day care centres encourage parental participation in structured group outings as well as in the daily activities at the centre, yet with respect to formal meetings between the child's parent and the teacher to exchange information and evaluate the development of the child, these tend to occur only two or three times a year in most centres. This has led to some innovative attempts to increase parental involvement such as the buffet-type suppers offered at the Andrew Fleck day care centre during which informal and formal discussions take place between parents and invited resource persons concerning various parenting techniques. This is an isolated example, however, and the invitation type approach cannot guarantee that those parents most in need of parenting skills will attend.

Finally, certain child care centres such as the Canadian Mothercraft of Ottawa-Carleton have expanded their range of services to include telephone information lines and mail out resource material for parents, as well as a professionally staff drop-in centre for parents and a monthly workshop "for parents on identifying suitable child care in the informal market" (Canadian Mothercraft, 1988:9). As well,

there exists a child care information centre in Ottawa which can provide up-to-date information on child care centres in Ottawa.

### HeadStart Programs

The HeadStart programs essentially combine the best ingredients of both the preschool and the day care programs, with the additional factor of targeting their services to the socioeconomically disadvantaged children in Ottawa. As such, they deserve to be considered separate from the other two.

"In 1980, the Ottawa Committee for HeadStart was formed to provide a forum to discuss common problems, share ideas and seek solutions to strengthen our ability to aid the families and the children served by our programs" (Ottawa Committee for HeadStart, 1980:1). In Ottawa, there are presently twelve HeadStart programs serving approximately three hundred and twenty-five children aged 2 1/2 to 5 years old. These programs are mainly half day integrated programs situated in designated day care centres and nursery schools, although three of the programs run for a full day and one other is situated in a school. The children of the programs may be referred by their parents, the Children's Aid Society or by public health nurses, as disadvantaged children at risk of failing in school. While the criteria for determining whether or not a child is at risk is the same as that which was used in the American preschool studies - essentially based on family income levels and the family environment - the difference in the Ottawa HeadStart programs is that the

children are referred to the program, whereas, the American preschool studies, usually, actively sought out their study sample which allowed them to control the sample size as well as the type of children that they accepted into their program.

The HeadStart programs in Ottawa represent the community's attempt to emulate, and improve upon, the HeadStart Project started in 1965 in the United States. Although various HeadStart studies furnished influential material to the researchers in Ottawa, the two major influences on the programs have been the work performed on the Perry Preschool Project by Schweinhart and Weikart (1983, 1987) in Ypsilanti, Michigan, as well as the study on Compensatory Education in the Preschool performed by Mary J. Wright (1983) at the University of Western Ontario, both of which have been looked at in some detail in this paper.

Based on the conclusions of these studies and the recognition that the low-income children of Ottawa were not exempt from these compensatory education needs, the HeadStart programs evolved with a specific purpose to provide a preschool experience which would help enable socioeconomically disadvantaged children to enter elementary school with an equal, or similar chance to achieve success as more advantaged children (Ottawa Committee, 1983).

In a brief presented to the four Ottawa School Boards, the Ottawa Committee for HeadStart (1983:2) outlined

fourteen factors that may characterize low-income, multi-problem homes from which disadvantaged children usually stem. These factors are:

- (1) the lack of a warm nurturing environment;
- (2) a lack of consistent treatment by adults and clearly defined limits;
- (3) a lack of positive attention by adults;
- (4) a frequent change in the adults providing care;
- (5) developmental delays notably in language;
- (6) poor nutrition;
- (7) a noticeable difference in personal hygiene and clothing standards;
- (8) a lack of adequate health and dental care;
- (9) a lack of outdoor play space;
- (10) a lack of stimulating play materials;
- (11) poor housing conditions;
- (12) frequent moves in the search for inexpensive housing;
- (13) little relief for the parents due to lack of babysitters;
- (14) poor self-image for family members.

The family characteristics outlined by the Ottawa Committee for HeadStart (1983:2) are consistent with those

identified by Robins (1966), McCord (1978), Loeber and Dishion (1983), Rutter and Giller (1983) and Farrington, Ohlin and Wilson (1986) and include those identified by the American preschool studies and Wright's (1983) study (i.e. low socioeconomic status, inconsistent and uncaring parenting, parental conflict and poor family management techniques). Although the Ottawa Committee did not dwell on the specific characteristics of the children from these problem homes (i.e. developmental delays in language which is consistent with a low I.Q. (Loeber and Dishion, 1983; Farrington, Ohlin and Wilson, 1986), their focus on the family characteristics are consistent with the family factors identified in Chapter 3 by the longitudinal studies as predisposing factors in the development of delinquency, notably: low socioeconomic status and poor family management and parental child-rearing techniques. As well, the factors identified by the Ottawa Committee incorporate, but are not limited to, those upon which the study samples were chosen in the American preschool studies. Furthermore, the identification of these fourteen factors reinforce the notion, implicit in the model program design, that for a good preschool program to succeed it must work with the family as a unit rather than with the child in isolation. As such, "the HeadStart program may be the beginning of a way out of the existing cycle" (Ottawa Committee, 1983:3).

The programs in Ottawa were conceived to provide individual and small group activities consistent with the developmental level of each individual child. The ideal staff-to-child ratio, consistent with the model program design, was deemed to be 1 to 6, such that supervision, observation and one-to-one tutoring could be easily accommodated. Furthermore, the programs were designed to work in close conjunction with health and other professional services (e.g. psychologists, speech therapists), and to provide nutritional support to the children, as well as education and counselling to the parents of those children who attended the programs.

Unfortunately, while the theoretical and conceptual foundations of the programs are more than satisfactory, with respect to the model program outlined in the previous chapter, the actualization of the HeadStart programs in Ottawa, as will be born out in the discussions and recommendations of the ensuing chapter, renders them incapable of fulfilling the scope of their objectives, particularly those that focus on providing the services for all disadvantaged children and providing the necessary parental education focused on family management techniques and parental child-rearing skills.

## CHAPTER SEVEN

### DISCUSSION AND RECOMMENDATIONS

My knowledge of the Ottawa-based services was gained through informal telephone and in-person exchanges of information with the following direct service providers: Diane Blenkiron, Chairperson of the Ottawa Committee of HeadStart and Supervisor of the Y.M./Y.W.C.A. HeadStart program; Isobel Bryan, Primary Consultant with Ottawa Board of Education; Maria Giammaria of the Curriculum Department of the Ottawa Roman Catholic Separate School Board; the Canadian Mothercraft of Ottawa-Carleton Child Care Resource Centre; and the Ottawa Child Care Information service; as well as, printed documentation provided by each as additional resource material. My knowledge base was further supplemented by numerous discussions with Lucie Brochu of "La Garderie l'Ile des Enfants" of Hull, Quebec. Observations of the programs was limited to the latter with several hours of observation time amassed over the last five years.

To briefly reiterate, the American preschool programs and the Consortium for Longitudinal Studies (1983) examined in Chapter 4, together with the array of longitudinal

studies presented and analyzed in Chapter 3, permitted the identification of six important features of a good preschool intervention program. The research suggests that the programs be targeted to children who are deemed to be high risk, as defined in the research; that the programs be staffed by people with college or university training in early childhood education and development; that the programs incorporate a validated, cognitively-oriented curriculum, based on the research, with specific goals derived from the principles of child initiated learning; that proper support systems are essential to maintain the curriculum on a daily basis; that the staff-to-child ratio should not exceed one-to-eight (Schwienhart, 1987), and, that the programs incorporate educational components in parental child-rearing and family management techniques. The research strongly suggests that the inclusion of these features in preschool programs may result in increased school and employment success for the graduates of these programs as well as significantly reduce the potential for involvement in delinquency and crime of these same graduates.

The goal of this research paper was to establish the feasibility of utilizing intervention programs in the early developmental stages of childhood to prevent, or reduce, delinquency in the Ottawa area by accumulating support for this notion through the existing research. As such, the

following recommendations will be tailored to achieving this goal and will be kept as limited in quantity and as practical as possible, in the hope that this may facilitate their adoption by the concerned agencies.

### 7.1 Evaluation

An evaluation of the long term beneficial effects of the preschool programs that exist in the elementary schools, day care centres and HeadStart programs would provide useful comparative knowledge both for researchers as well as those that provide the direct services, however, such a global evaluation in the city of Ottawa is not likely to be considered due to both financial and time consuming elements.

The research in this paper on preschool programs suggests that beneficial effects in the area of increasing school success may be derived by focusing these programs on children from socioeconomically disadvantaged areas (Schwienhart and Weikart, 1983, Palmer, 1983, Farrington, 1985, 1986, Gray, 1983, Lazar, 1983, Levenstein, 1983, Wright, 1983). The fact that the only evaluation study of HeadStart programs in Ottawa was a cross-sectional survey study by Helen Charron (1987) which discovered numerous inconsistencies in program delivery, suggests that an existing HeadStart program in the Ottawa area would be, given the children they serve,

a logical choice of a program on which to carry out a long term evaluation study.

To ensure the effectiveness of this study it should, as suggested in the longitudinal research looked at in this paper (eg. Loeber and Dishion, 1983, Rutter and Giller, 1983), include measures of several variables to reflect, among others, the changes in family structures (ie. more single parents as well as more two-income families) and the increase in the availability and program content of television (ie. almost all homes have a television and the program content includes more educational television such as Sesame Street).

It Is Recommended:

- 1) That a HeadStart program in Ottawa, that most resembles the model program outlined in this research, be chosen as the site for a comprehensive and objective long term evaluation to establish the program's efficiency in affecting the development of delinquency and increasing school and employment success for the socioeconomically disadvantaged children it serves.

## 7.2 Coordination of Services

The preschool programs situated in the elementary schools and the day care centres as well as the HeadStart programs all provide a valuable and necessary service to the children and families of Ottawa. However, even though, as the previous chapter as shown, all three services have based their philosophies on similar child development principles, the ability of each to deal with the needs of the socio-economically disadvantaged children varies considerably. The elementary school preschool programs, for example, function with a staff-to-child ratio of 1-to-20, which is considered inadequate to effectively meet the needs of the disadvantaged children according to the research and the model program presented in this paper. Several day care centres in Ottawa, according to the Child Care Information Service, also cater to only a small minority of socioeconomically disadvantaged children which effectively restricts the development of an expertise in this area by the educators concerned, and may lead to unnecessarily labelling the child, in the eyes of his peers, as disadvantaged if attention is given to his needs in the context of a program not specializing in the needs of the disadvantaged.

The longitudinal research looked at in this paper (especially Rutter and Giller, 1983, and Loeber and Dishion, 1983) points out that one variable is not sufficient to predict delinquency, and that targeting the socioeconomically disadvantaged children may subject some to programs they do not need and may produce adverse effects on some children. However, the goal of the programs presented in this paper is not to identify and label individual children as potential delinquents but rather to recognize the inherent needs of the socioeconomically disadvantaged children (Wright, 1983, Ottawa Committee, 1983) and to attempt to meet these needs and increase their chance for success. An approach which may make the costs of intervention more attractive than the potential costs of non-intervention.

It is necessary, therefore, that proper communication and coordination between the services exist to ensure that the services are tailored to the clients they serve. Towards this end, a central registry could be developed in Ottawa as registration procedures presently exists for all programs, which could be overseen by a committee of representatives from the elementary schools, the day care centres and the HeadStart programs who could suggest to the parents the most appropriate service for their child.

Whereas between service communication and

coordination may facilitate meeting the needs and the demands of the socioeconomically disadvantaged children;

It Is Recommended:

- 2) That a Central Registry for all children aged 2 to 5 years old be established in Ottawa to replace the present registration procedures for pre-kindergarten programs.
- 3) That a Coordinating Committee, composed of representatives from the elementary school preschools, the day care programs and the HeadStart programs, oversee the Central Registry to facilitate and coordinate the entry of children into appropriate programs.
- 4) That an Early Identification Program, based on factors which may determine high-risk children, such as those referred to by Loeber and Dishion (1983) be created in Ottawa to aid in the decision making of the Coordination Committee. Ideally, this program would be combined with a longitudinal study to ensure that the factors chosen for inclusion in the Program are appropriate for the 1990's.

### 7.3 Day Care Services

The status and use of day care has rarely been more evident in Canada than at the present, due in large part to the priority being placed on a National Child Care Strategy by each party in the Federal Government election.

The presentation in this research suggests that the strengths of the day care centres lie in their well trained staff, their curriculum, based appropriately on cognitively-oriented child-initiated learning and individual development, their ability to maintain appropriate staff-to-child ratios, according to the model program design, as well as the existence, in each centre, of the necessary support systems to maintain the curriculum on a daily basis. When compared to the model program it is evident that the day care centres lack two features - a specific target group and an educational component focused on parental child-rearing and family management techniques.

With respect to the former, day care facilities exist to serve all children whether they require government subsidies to afford the service or not, and hence to suggest that they focus solely on the disadvantaged children would be to commit a great disservice to the general public.

However, the research looked at in this paper strongly suggests a link between parental child-rearing skills and family management techniques and the development of delinquency (Loeber and Dishion, 1983, Rutter and Giller, 1983, Patterson, 1982, Robins, 1966). As such, based on the research, all day care centres in Ottawa should incorporate this component into their program and design it to meet their needs. By recognizing that it is not all socioeconomically disadvantaged children who are at risk, nor is it only these children, those centres that do not cater specifically to the socioeconomically disadvantaged areas of the city could nevertheless organize group parent training sessions, similar to those held at the Andrew Fleck centre, which would serve as a support and an information mechanism for those parents who require, or request the assistance.

The remaining centres that have a significant percentage, possibly 1/3 or more, of socioeconomically disadvantaged children in their program may require a more intense program. To achieve this, these centres should have a trained staff member who can administer a parent training curriculum on a one-to-one basis to those parents of high-risk children. Given that Palmer (1979) demonstrated that the desired beneficial effects could be obtained with only minimal intervention, the designation of one staff member as a parent

trainer could be accomplished without the need for any significant budget increases in the individual programs.

Whereas the key deficit in the day care programs in Ottawa appears to be the lack of a parent training program;

It Is Recommended:

- 5) That those day care centres which cater to a significant percentage of socioeconomically disadvantaged children (arbitrarily chosen as 1/3 or more for the sake of this recommendation) have at least one staff member designated and trained to teach a validated parent-skill course to the high-risk families, as this is an important component as identified by Robins (1966), McCord (1978), Rutter and Giller (1983), Loeber and Dishion (1983), Leitenberg (1987) and Patterson (1982).
  
- 6) That those day care centres with a small percentage of socioeconomically disadvantaged children organize group parent training sessions to support and inform those parents in need.

#### 7.4 The Role of the Ministry

The quality of programs and services to the socioeconomically disadvantaged children is more likely to improve if strong, consistent leadership and support are provided. In the event that the National Child Care Strategy of the next Federal Government does not include the creation of a new Child Care Ministry, the burden of leadership and support must fall on the Provincial Ministry of Education.

Recommendations 2, 3 and 4 addressed the importance of municipal communication and coordination of the preschool services offered to the children of Ottawa families and the obligation to recognize the special needs of high-risk children. However, the establishment of such municipal organisms as those described in recommendations 2, 3 and 4 would be severely hindered without the formal recognition, by the Ministry of Education, of the importance and the scope of the roles played by the day care centres and the HeadStart programs in the development of our children. This formal recognition must not be limited to the provision of moral support but must also include financial and service aspects. It is important that the Ministry of Education acknowledge day care centres and HeadStart programs as accredited preschool programs and provide the necessary funds such that these programs may incorporate the required

curriculum components as described in the model program outlined in this research. Furthermore, to supplement the provision of financial assistance, it is equally important that the Ministry of Education accommodate the needs of day care centres and HeadStart programs to access the professional services, such as speech therapists and psychological testing that are generally reserved for the School Boards, such that the socioeconomically disadvantaged children they serve may also benefit from specialized educational tools.

Whereas HeadStart and day care programs require the formal recognition by the Ministry of Education as accredited preschool programs and whereas the Ministry must assume a leadership role with respect to the provision of financial assistance and access to professional services that this formal recognition would entail;

It Is Recommended

7. That HeadStart and day care programs be formally recognized as accredited preschool programs by the Provincial Ministry of Education and funded accordingly.
8. That the Ministry of Education, through the existing municipal School Boards, provide the necessary support

and access to the professional services required by the HeadStart and day care programs.

### 7.5 HeadStart Programs

The research presented in this paper strongly suggests the need for HeadStart programs that target the socioeconomically disadvantaged children for both the short and long term benefits that may be gained from these programs. Furthermore, should the recommendations that have been forwarded in this chapter be adopted, it is reasonable to expect that the support for HeadStart programs may increase. However, there remains two issues which must be addressed.

First, even in the presence of the research that has been performed in the area of preschool programs, there still does not exist, at the present time, a HeadStart program to serve the children in each of the low-income or socioeconomically disadvantaged areas of Ottawa. Second, those programs that do exist cannot presently fulfill all the expectations placed on them. As the model preschool program derived from the research presented in this paper established, a major required component for a preschool program to aspire to attain the desired short and long term benefits, including the reduction of delinquency, is the incorporation of an educational program focused on the training of family

management techniques and parental child-rearing skills. This educational component does not exist to the extent that it should in the present programs due, in large part, to a lack of funds (Bleinkiron, 1988). This situation could, however, be alleviated by utilizing some of the funds obtained from the Ministry of Education, as per recommendation 7, to employ, in each HeadStart program, a trained staff member specializing in the teaching of family management techniques and parental child-rearing skills to high-risk families. This staff member would be required to work evenings and weekends, as many parents are absent during the day, and to teach the courses in the individual's home. The latter should not pose any great difficulty as the children enrolled in the HeadStart programs must all have a home address, and, should the programs be established in all low-income areas, the educator would have but one specific area to attend to reach all the parents.

Whereas the research looked at in this paper suggests that HeadStart programs are needed and may provide beneficial short and long term gains, and whereas the existing programs cannot adequately fulfill their mandate, as described in the previous chapter, without the presence of a trained educator in family management and parental child-rearing techniques;

It Is Recommended:

9. That HeadStart programs be established in all socioeconomically disadvantage areas of Ottawa.
  
10. That each HeadStart program have a trained staff member specializing in the teaching of family management techniques and parental child-rearing skills to high-risk families (Robins (1966); McCord (1978); Loeber and Dishion (1983); Rutter and Giller (1983); Leitenberg (1987); Patterson (1982)).

## CHAPTER EIGHT

### CONCLUSIONS

At the outset of this study, the challenge was to determine if it was possible to identify, early in a child's life, certain factors, or constellation of factors, which would predispose that child to becoming a persistent delinquent, and if so, could these factors, and subsequently the end result, be altered through intervention programs implemented in the formative years of a child's life.

The literature reviewed in this work suggests that the answer to both of these questions is affirmative. The longitudinal studies examined identified three family variables and three individual variables that may be key factors in the genesis of juvenile delinquency. With respect to the family variables, those identified as being most likely related to the development of delinquency were poor family management and child-rearing techniques, parental criminality and low socioeconomic status with the latter serving a significant role in the determination of a target group for prevention programs. The individual characteristics suggested by the empirical research as most strongly associated with

delinquency were the poor educational achievement of the child, the child's I.Q. as well as the child's own antisocial or troublesome behavior as measured by school teachers between the ages of eight to ten years old.

An examination of four preschool programs in the United States; the Perry Preschool Program, the Early Training Project, the Harlem Study and the Mother-Child Home Program, revealed that by targeting the program to children of families of low socioeconomic status, orienting their curriculum towards increasing the cognitive ability of children and by using child-initiated learning, beneficial short and long term effects might be achieved. These include increased I.Q., increased school success, increased employment success, a reduction in welfare dependency and a reduction in the involvement in juvenile delinquency. The Perry Preschool Program was unique in measuring the effects of preschool on delinquency and while some researchers, or cynics, may suggest the existence of a halo effect with respect to the Perry Preschool Program (ie. both the children and the researchers knew which group was which and hence this bias may have been reflected in the results), it is unlikely that such an effect could be maintained consistently for over seventeen years. Rather, this program should be viewed for its uniqueness and the results of the program drawn upon to further research in this area of preventive intervention. Further, the

consistency of results among the other programs examined with respect to the variables measured strongly suggests that had they too measured the effects of their program on reducing delinquency they may have obtained comparable results.

An incorporation of the information obtained through the longitudinal research and the preschool projects suggested the inclusion of the following six features in a good preschool intervention program; that the program be targeted to socioeconomically disadvantaged children; that the program function with staff properly trained in the area of early childhood education and development; that the program incorporate a validated cognitively-oriented curriculum with specific goals; that the proper support systems exist to maintain the curriculum on a daily basis; that the staff-to-child ratio not exceed one-to-eight; and, that the program incorporate an educational component focused on teaching family management techniques and child-rearing skills. The inclusion of these components in a good preschool program may serve to enhance the child's cognitive abilities and chance to succeed in school, and may produce long term effects with respect to increased employment, decreased welfare dependency and a reduction in the incidence of juvenile delinquency.

The feasibility of adopting this model program as one against which the services in Ottawa could be compared and contrasted was established mainly through an examination of

the preschool Compensatory Education Project performed by Mary J. Wright (1983) at the University of Western Ontario. The similarity of the results obtained by Wright (1983) with those of the American preschool projects strongly suggested that the benefits of a good preschool program could transcend the physical boundary between the two countries.

As a result, the preschool programs in Ottawa, those of the elementary schools, the day care centres and the HeadStart programs, were presented for comparison to the model program. It was discovered that the curriculum design of all the programs as well as the necessary support systems to maintain this curriculum on a daily basis were comparable to those promoted by the model program. However, the services provided left ample room for improvement as discussed in detail in the previous chapter. The effectiveness of the existing services in Ottawa to achieve the goals of the model program, especially that of reducing the incidence of delinquency, is most severely limited by the lack of communication and coordination between the service providers and the absence of the educational component to supplement the child's learning through the teaching of family management techniques and parental child-rearing skills to the parents of high-risk children.

As Carl Jesness (1987:156) stated, "while our prediction (based on early childhood factors associated with

the development of delinquency) are not perfect, they are sufficiently accurate to be taken seriously and used in practice". In conclusion, therefore, while this research thesis has shed light on the need to encourage more Canadian research into the effects of early childhood intervention programs on the prevention of juvenile delinquency, it is hoped that the information and recommendations presented in this paper may be considered of value to the formulators of crime prevention policies in Canada and to all those concerned with the early education and the future of our socioeconomically disadvantaged children.

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APPENDIX A

EXECUTIVES URGE A RISE IN

AID FOR POOR CHILDREN

Declaring that 30 percent of the students in public schools, face "a major risk of educational failure and lifelong dependency," a group of corporate leaders has called for increased public investment in the health and educational needs of young children.

In an 87 page report to be released Tuesday, the New York-based Committee for Economic Development urges increased investment in prenatal care for pregnant teen-agers, instruction in parenthood, better child care programs and quality preschool programs for disadvantaged 3 and 4 year olds.

The report, entitled "Children in Need: Investment Strategies for the Educationally Disadvantaged," warns that the United States is creating "a permanent underclass of young people" who cannot hold jobs because they lack fundamental literacy skills and work habits.

It further warns that poverty and ignorance could cause shortages of qualified workers in coming years and threaten America's competitive stance in a global economy.

The report is the latest in a series of major reports over the last four and a half years on the quality of American education. It is the first to focus on the politically divisive topic of how to educate disadvantaged students and the first to stress a connection between formal education and the health and general developmental needs of preschool children.

#### **Reducing the Tax Burden**

The proposals would raise a number of political and economic questions over how much the Government should do to take care of the poor, but they appear in keeping with liberal positions that society must act or face dire consequences in the future. Although, it puts no price on its proposals, the report argues that, over the long run, they would pay for themselves.

The study cites research from the House Select Committee on Children, Youth and Families showing that \$1 invested in quality preschool education would return nearly five times that much because of lower costs of special education, public assistance and fighting crime.

"American business has learned forcefully in the last 10 years that it is a lot more effective to design quality in from the beginning than to correct things later," said Owen B. Butler, the retired chairman of the Procter &

Gamble Company, who played a key role in writing the report, "If we spend this money now, in the long run we will reduce our tax burden".

The report urges the business community to become a "driving force" in seeking higher public financing for early intervention programs but also argues that the Federal Government "needs to reaffirm its longstanding commitment to ensuring the disadvantaged access to quality education".

#### **Top Corporate Executives**

Donna E. Shalala, president of Hunter College, who helped draft the document, called the report significant because it constituted "the most forceful statement yet from the business community about the Federal responsibility for educating disadvantaged children."

The 45 year old Committee for Economic Development is a public policy research group whose 225 trustees are mostly top corporate executives. Its chairman is Edmund B. Fitzgerald, chairman and chief executive officer of Northern Telecom Limited.

Two years ago the nonprofit committee published an influential study, "Investing in Our Children," that called for higher standards in public schools and urged the business community to become more involved in bringing them about.

In the latest report the businessmen said it made "no economic sense" to allow an "educational underclass" to persist.

"By 1990," they declared, "the impact of new technologies is expected to drive total private-sector demand for employment to 156.6 million jobs, nearly twice that in 1978. If these estimates are only close to the mark, there will be a shortage of over 23 million Americans willing and able to work. Our industries will be unable to grow and compete because an expanding educational underclass will be unable to meet the demands of such jobs."

They continued: "This nation cannot continue to compete and prosper in the global arena when more than one-fifth of our children live in poverty and a third grow up in ignorance. The nation can not afford such an egregious waste of human resources. Allowing this to continue will not only impoverish these children, it will impoverish our nation - culturally, politically and economically."

The report, which cost \$300,000 to produce, said that the most promising approach to solving the problem is "early and sustained intervention in the lives of disadvantaged children, both in school and out." Among the steps it proposes are these:

- prenatal and postnatal care for pregnant teen-agers and other "high-risk" mothers as well a follow-up health care for their infants;
- parenthood education programs for both mothers and fathers, including guidance on nutrition;
- quality child-care arrangements for poor working parents that stress social development and school readiness;
- quality preschool programs for all disadvantaged 3 and 4 year olds.

The committee's report reinforces a growing interest across the country in early childhood education. New York City, for example, has a new program called Project Giant Step that offers educational, health and other services to 4 year olds from low-income families. The number of students served will increase from 2,620 last year to 8,620 in the coming year.

Last year 22 states spent \$328 million, or twice the amount of the previous year, on programs for preschool children. Missouri and Minnesota now require local school

districts to offer programs on parenthood skills for low-income families.

### Restructuring of Schools

Much of the interest has been stirred by reports showing that early childhood intervention programs can have significant long-term effects. Some of the research has focused on the Perry Preschool Project in Ypsilanti, Mich, which helped cut later dropout rates and welfare dependency in half.

"There is not a lot of long-term data on the effects of such programs, but there is enough to say that it is a good idea to go ahead and do more", said Mr. Butler.

In addition to preschool programs, the report urged a restructuring of public education with smaller schools, smaller classes and shared authority between teachers, parents and others.

The research and policy panel of the Committee for Economic Development regularly issues reports on national issues such as trade policy, fiscal policy and economic competitiveness. Its chairman is William F. May, the former chairman of the American Can Company and currently chairman and chief executive officer of the Statue of Liberty-Ellis Island Foundation.

The education report was drafted by a subcommittee led by Mr. Butler. Other members included William S. Woodside, chairman of the executive committee of the America Corporation; John L. Clendenin, chairman of the BellSouth Corporation, James J. Renier, the president of Moneywell Inc., and Donald M. Stewart, president of the College Board.

The report can be obtained from the Committee for Economic Development, 477 Madison Ave., New York, New York, 10022. The price, including postage is \$11.55.