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The Etiology of Delinquency  
in Female and Male Adolescents

by  
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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled "The Etiology of Delinquency in Female and Male Adolescents" submitted by Elizabeth Oddone in partial fulfilment of the requirements for the degree of Master of Science.



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## ABSTRACT

The purpose of the present research was threefold: (1) to determine the similarities and differences between nondelinquent and delinquent youth; (2) to analyze gender differences among delinquents; and (3) to investigate the impact of family variables on delinquency. Based on a review of 285 records of institutionalized youth, patient demographic and developmental life history variables were examined.

Discriminant analyses revealed that several variables distinguish between delinquent and nondelinquent, female and male adolescents. In comparison to nondelinquents, more delinquent youth were diagnosed as conduct disordered, had histories of prenatal complications, reached developmental milestones at unpredictable rates, performed poorly in school, experienced physical abuse, reported maternal psychopathologies, and were negatively attached to both parents. Despite the remarkable congruence between female and male delinquency trajectories, differences emerged on key developmental variables. Whereas sexual and physical victimization, nontraditional family households, early childhood problems, and less positive peer attachments discriminated among females, negative paternal attachment emerged as an important discriminating variable for male delinquents.

Although these results indicate that family structure and process variables are highly associated with delinquent outcome, other important socializing contexts and developmental variables are implicated as well. In fact, factor analyses identified 5 latent variables in the function: (1) Family Pathology, (2) Developmental Problems, (3) Abuse History, (4) Maladaptive Behaviours, and (5) Socialization Influences. These results are discussed and interpreted within the delinquency research.

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## DEDICATION

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## CHAPTER I INTRODUCTION

These days, it seems as though one cannot escape the overwhelmingly horrific media accounts and graphic displays of violence in our society. Current examples include Marilyn Tan, who was reportedly the first person charged with injecting her ex-lover with the deadly HIV virus, and Paul Bernardo, who is currently on trial for nine counts of kidnapping and the brutal murders of two teenage girls. While few people would deny feeling repulsed by and fearful of the pervasiveness and seriousness of the violence between adults and towards youth, reactions to youth crime and delinquency have been more varied, and at times more intense.

According to the predominant Western view of human development, adolescence is believed to reflect a time of "storm and stress, when conflict is natural, inevitable, and even necessary" (Hall, 1987, p.769; Violato, 1992). From this perspective, adolescents are not only viewed as conflict-laden, but as Hall (1987) indicated, they are "expected to be resistive, belligerent, and hostile" (p.769). Ironically, while youth who adhere to these expectations of rebelliousness are labelled deviant and delinquent, those who do not are often viewed as abnormal misfits. Regardless of the behaviours displayed by youth then, it appears that society has developed a negative, rigid, and pathological depiction of adolescence.

In a review of 21 daily and Sunday newspapers, Falchikov (1986) found that the typical adolescent in 1985 was portrayed as either subversive or criminal, with some of the more spectacular crimes being given greater emphasis than their occurrence in real life warranted. Based on the "deviancy amplification spiral", Falchikov (1986) concluded that the media create moral panic in the public, whereby the target population identifies with the labels and images they are supplied with. Disturbingly enough, the outcome is that not only are adults buying into these stereotypical presentations of adolescents, but so too are youth.

Contrary to this more popularized classic storm and stress view of adolescence, however, is the contention that most youth "are not in turmoil, not deeply disturbed, not at the mercy of their impulses, not resistant to parental values, not politically active, and not rebellious" (Hall, 1987,

p.770). Rather, young people generally feel happy, positive about themselves, and optimistic about their future (Mussen, Conger, Kagan, & Huston, 1990; Violato, 1992). According to Bandura, unruly adolescent behaviour is not a result of an inevitable developmental stage, but rather of "cultural conditioning and social expectation" (Muuss, 1988, p.285). For those who take the time, the gradual transformation of many youth into adulthood can be witnessed, as adolescents attempt to resolve social, educational, physical, and spiritual dilemmas.

Still, while it may be true that the media 'sniff out' and subsequently 'take advantage of' instances of youth crime and delinquency, and underreport the cases of 'healthy' adolescent development, it is important to recognize that there remains a significant minority of youth who not only perceive life negatively, but also engage in maladaptive behaviours. Unfortunately, their problems may be exacerbated by society's negative stereotypes and ambivalence, which can be carried over to the professionals directly involved in youth 'treatment'. Encouraging youth to take responsibility for their behaviours, while simultaneously helping them seek and select healthier opportunities in the future, appears to be the task facing our North American culture.

#### Developmental Psychopathology

In a society that tolerates few differences and deviations, it is not surprising to find concern among mental health professionals as well as the general public, regarding youth "who do not conform to society's rules and expectations" (Martin & Hoffman, 1990, p.109). Although standards and structure can be useful in avoiding states of chaos and confusion, it is important to understand how these structures are devised, and to recognize just how entrenched they can become in society.

According to Harkness and Super (1990), each culture selects a portion of the spectrum of possible human behaviours as either socially appropriate or as in conflict with the dominant ethos. For this reason, they suggested that all illness can be regarded as culture bound. One implication of this argument is that the definition of what constitutes normal and deviant behaviour likely varies cross-culturally. A second implication, is that persons with power are the ones who create and effect these definitions. In light of this, stakeholders may then conveniently select behaviours which will

assist them in maintaining control over the culture's members.

In contrast to the belief that behavioral problems represent the extreme ends of the normal distribution (Plomin, Nitz, & Rowe, 1990), both Achenbach (1990) and Lewis (1990) viewed developmental psychopathology as the study of relations between developmental processes and maladaptive deviations. These deviations can change as a function of one's age and are presumed to have an historical cause. The premise of change suggests a more optimistic view, in that people are seen as dynamic and potentially able to adjust, rather than being eternally destined to behave in a certain way. Moreover, the hypothesis that psychopathology originates with maladaptive development implies the importance of clinicians undertaking these retrospective studies.

#### Defining Delinquency Within Developmental Psychopathology

According to Rubin (1970), various approaches have been adopted in the task of defining delinquency, with the most typical being designations based on professional discipline. With different research questions demanding different definitions (Olczak, Parcell, & Stott, 1983), there appears to be a general lack of consensus on any one definition of delinquency as being more or less adequate than others.

By and large, Canadian society defines the delinquent as "a young person, generally under 18 years of age, who engages in behaviour that is punishable by law" (Mussen et al., 1990, p.667). Although obviated by the Young Offenders Act in 1983, under the Juvenile Delinquents Act a distinction was made between status offenses, which included acts for which a juvenile but not an adult may suffer sanction (e.g., truancy and running away), and delinquency, which comprised more serious offenses that would also be illegal if committed by an adult, such as murder and rape (Bala & Lilles, 1982; Barton & Figueira-McDonough, 1985). Despite these legislative changes and the lack of consensus regarding which status acts should be liable to legal punishment, research attempts have maintained and continue to employ this distinction.

In contrast, psychiatry relies on the conduct disorder as its definition of delinquency. According to the American Psychiatric Association (APA, 1994) Diagnostic and Statistical Manual of Mental Disorders (DSM-IV), conduct disorder refers to "a repetitive and persistent pattern of behaviour in which the basic rights of others or major age-appropriate societal norms or rules are violated" (p.85). This classification predicts that males will exhibit "fighting,

stealing, vandalism, and school discipline problems", while females "are more likely to exhibit lying, truancy, running away, substance use, and prostitution" (APA, 1994, p.88). The four main groups of conduct disorder involve aggression toward other people or animals, nonaggressive behaviours causing property loss or damage, deceitfulness or theft, and serious rule violations (APA, 1994). Still, this approach has been criticized on the basis of its broad scope, since as Sellin and Wolfgang (1982) argued, "it would be difficult to find any paragons of virtue who would be wholly exonerated of delinquency, save through parental understanding and leniency" (p.23).

Despite it being a nebulous, complex, and ever-changing entity (Bartol & Bartol, 1989), researchers cannot be excused from the challenge of defining delinquency. If one is to study and delineate the causes of delinquency, a clear awareness of its fundamental nature becomes a prime requisite (Sellin & Wolfgang, 1982; Giallombardo, 1982).

In keeping with Olczak et al.'s (1983) advice to specify the age of the sample, and the point on the continuum of juvenile justice system involvement from which the data is taken, four criteria are included in the present study's operational definition of delinquency. Delinquency refers to: (1) any act of an individual, male or female, and of any socio-cultural-economic background, who is under the age of 20; (2) who has violated a law or social norm; (3) that has caused or could cause liability for adjudication or treatment (Santrock, 1990); (4) whether or not it has been brought to the attention of a social or law-enforcing agency (Tappan, 1982).

As can be evidenced by this definition, the "liability for adjudication or treatment" is included, thereby not limiting the investigation of delinquency solely to legal labelling and processing. Rather, this study attempts to explore combined "hidden" and "official" delinquent behaviours, by fusing the legal component of delinquency with the psychiatric category of conduct disorder and self-report data. It seems that only a few studies have been conducted in Canada that examine both reported and unreported delinquent and criminal incidents involving youth (Smith, Bertrand, Arnold, & Hornick, 1995). Finally, since there are no direct negative repercussions on the youth from this sample as a result of labelling them delinquent, the definition adopted for the present study considers any youth who reports having engaged in a status or criminal offence, even once, as delinquent.

### Summary

Whether deviant behaviour occurs more frequently during adolescence than at other times of life remains a controversial public concern. While some believe that delinquent and criminal behaviours cross all developmental age barriers, and thus people engage in such acts to varying degrees from time to time throughout their lives, others argue that adolescence is a specific period of crisis, where there is a loss of control and raging emotions, and thus society needs to treat youth as though they are in a state of emergency. Within this group, some even believe that teenagers today are more violent and lawless than youth in times past (Rutter & Giller, 1984; Males, 1992).

Despite the media's role in highly publicizing and sensationalizing youth violence and crime, the frequency of these debates coupled with scientific evidence, suggest that to some extent, concern for youth may be warranted. Studies indicate that "delinquent behaviour is a common occurrence during adolescence, with prevalence rates peaking between the ages of 15 and 17" (Hurrelmann & Engel, 1991, p.119; Rutter & Giller, 1984). Roberts and Hudson (1993) reported that crime rates for several offence categories have recently risen steadily in Canada. Similarly, Violato and Travis (1994) asserted that millions of people are victimized yearly by delinquency, when "property is stolen or destroyed and people are injured or killed" (p.1).

Yet, because great discretion is utilized by parents, communities, and the authorities, it is difficult to know with any certainty just how serious and frequent adolescent delinquency and crime is. In fact, many lawbreakers never come to official attention, or are spared legal processing through police discretion; of those who are arrested, only about 20% are ever adjudicated (Santrock, 1990; Bartol & Bartol, 1989; Giallombardo, 1982; Elliott, Ageton, & Canter, 1979; Thompson, 1986). Studies of hidden lawbreaking have shown that many youth who are believed to be nondelinquent, later admit to delinquent involvement (Gibbons, 1976). Despite the difficulties in recording, measuring, and then trusting the statistics generated on prevalence rates, Rutter and Giller (1984) have recommended that researchers direct their scepticism at what the recorded statistics can tell about the nature of unrecorded crime.

### Purpose of the Present Study

Given the foregoing discussion, delinquency in the present study is

approached from a developmental perspective. Delinquent behaviours are viewed as quantitative variations on normal characteristics that may be evident at other developmental periods, in less intense degree and across fewer situations. Based on the premise that delinquency reflects a small portion of a youth's total behaviour, the present study attempts to empirically investigate the differences between male and female delinquent and nondelinquent young adults. The main purpose of the present study, then, was to compare and contrast delinquent and nondelinquent youth on a number of life history, demographic, and psychological variables. A secondary purpose was to explore gender differences in delinquency.

In order to further understand delinquency, various theoretical explanations and research studies conducted in the area of delinquency are reviewed in Chapter II. The research methods employed in the present investigation are summarized in Chapter III, while the findings from univariate and multivariate analyses are presented in Chapter IV. Chapter V includes an interpretation and discussion of the results, followed by a brief evaluation of the present investigation. The thesis concludes with a summary of the main findings and generalizations concerning adolescent development and delinquency.

## CHAPTER II

### REVIEW OF THE LITERATURE

Our Western culture seems to be motivated by the urge to find the causes of behaviours, emotions, and ideas. According to Giallombardo (1982), practically every citizen has a ready explanation for the frightening and steady increase in delinquency and youth crime. While some blame society's growing permissiveness and a decline in respect for authority, others point to the changing patterns of family relationships and the incidence of single-parent families. In order to understand the development of delinquent behaviour more systematically, a multitude of rich, strong, and exciting theories have been proposed across various disciplines (Schafer & Knudten, 1970; Giallombardo, 1982; Elliott et al., 1979). For instance, sociologists emphasize learning and the external environment, whereas psychologists tend to focus on individual differences, personality, and cognitive traits (Hirschi & Gottfredson, 1988; Mizushima, 1972). Regardless of the explanation adopted, the actual search for causative factors to delinquency seem to reveal yet one more level of complexity.

Despite this complexity and the frustration involved in the search for causal factors, however, the results from such explorations can be useful in developing prediction models. According to Loeber and Dishion (1983), the value of accurate prediction in the case of juvenile delinquency is twofold; theoretically, prediction can facilitate the construction of theories of delinquency, while more practically, it can help parents and professionals take adequate action with youth. It has been suggested that the type of explanation one offers for delinquency implies the sort of remedy required to eradicate it (Furnham & Henderson, 1983). For these primary reasons, the common goal of delinquency theories has been to search for the underlying etiological factors which motivate or impel youth to engage in delinquent behaviour (Lipton & Smith, 1983). Notwithstanding the significant strides taken in becoming more versatile and responsive to offenders' needs, greater proactive and preventive measures still need to be implemented. Presumably, through the study of the etiology of delinquency, a better understanding of the problem can emerge and more effective services can be delivered.

The first part of this chapter involves a review of various theoretical perspectives that have attempted to explain the causes of adolescent crime and delinquency, whereas the second section focuses on a few of the significant correlates of delinquency that have resulted from previous research efforts. The final components of Chapter II include a discussion of the specific phenomenon of female delinquency and a statement of the research questions that frame this study.

### Theoretical Perspectives

Due to the abundance of delinquency theories proposed over the years, and the obvious practical constraints involved in providing an exhaustive or comprehensive account of each one, the present paper will be limited to the review of four main viewpoints, which have guided the delinquency research. A brief discussion of a few theories within each of the biogenic, psychogenic, and sociogenic approaches will be presented, concluding with the more recent interdisciplinary approach.

#### Biogenic Approach

Several theories have evolved from the application of biology to the understanding of delinquency and crime (Griffin & Griffin, 1978; Rutter & Giller, 1984). Generally, biogenic explanations have attributed faulty biology, defective heredity, and neurophysiological brain imbalances to misconduct and delinquency.

Somatological Theories. Although quite varied, all somatic explanations of delinquency and crime commonly focus on body structure and physical stigmata as indicative of delinquency (Schafer & Knudten, 1970). While phrenologists suggest that different irregularities and bumps in skull shape can be associated with different types of criminal activity, in physiognomy, facial features point to whether people harbour inborn traits that will predispose them to delinquency (Morgan, 1985). According to Lombroso, delinquents are "atavistic" in that they represent a predestined reversion to a primitive type of human, unable to assimilate to society because of their unrefined instincts (Schafer & Knudten, 1970; Griffin & Griffin, 1978). Specifically, extremely long arms, eye defects, unusually large or small ears, and facial asymmetry are believed to signal an individual's degenerate tendencies.

Theories focusing less on body structure and more on physical

handicaps or abnormalities have also been proposed as indirect causes of delinquent behaviour. Physical defects such as blemishes, poor eyesight, or crippled limbs are believed to produce personality problems, which in turn make adjustment without resorting to delinquency impossible (Griffin & Griffin, 1978).

Despite their past popularity, somatological theories are considered limited, particularly because of their inability to take into account the natural differences in body structure between males and females.

XYY Genetic Theory. Chromosomal abnormalities, such as the XYY complement, have also been presented as etiological explanations of delinquency. While a large percentage of XYY individuals were discovered in a prison population (Griffin & Griffin, 1978), these findings have been questioned primarily on the basis of significant methodological flaws. According to Violato and Travis (1994), when more carefully designed studies were performed, "the typical characteristics of XYY males are not violence and criminality, but above-average height, large teeth and in some cases, severe acne" (p.3). Plomin et al. (1990) argued that the vast majority of criminals are not XYY individuals, and almost 98% of XYY individuals are not criminals.

Neurohormonal Theories. The field of nutriophysiological criminology has focused on the role of nutrition in explaining delinquency. Specifically, this approach suggests that some forms of criminal activity may be the result of distortions and brain malfunctioning resulting from chemical imbalances (Geary, 1983; Violato & Travis, 1994). Still, the precise influence of nutrition on delinquent conduct remains unclear.

The arousal theory is also considered a special subset of the neurohormonal perspective. Delinquents are assumed to have inherited nervous systems that are difficult to condition, are prone to enduring pain, and that are receptive to unusually intense stimulation (Ellis, 1987). While one version of the theory asserts that delinquents are slow to shift from average to high arousal levels when confronting threatening stimuli, another maintains that criminally-prone persons are slow in returning to a baseline from a high arousal level.

Summary of the Biogenic Approach. According to the biogenic or constitutional approach, genetic and physiological factors are viewed as playing a central role in the etiology of delinquency. The biological

orientation is based on the premise that delinquents are radically different from normal humans in organic structure, and thus, any solution to the problem of delinquency rests with changes in the human organism (Schafer & Knudten, 1970).

Despite its inclusion in present studies as suggestive that biology influences delinquent conduct, few valid generalizations involving biological variables have resulted over the years. In fact, Gibbons (1976) claimed that almost without exception, the biological theories advanced have been scientifically naive, while the research designs have somehow been flawed.

#### Psychogenic Approach

Psychogenic approaches share the belief that delinquents are responding to some kind of mental conflict or illness. For instance, according to the mental degeneracy hypothesis, weak minds are subject to the acceptance of antisocial behaviour patterns (Griffin & Griffin, 1978). Although many delinquents and criminals have high intelligence (Schafer & Knudten, 1970), researchers still persist in looking for a significant relationship between low intelligence and delinquent conduct.

Psychoanalytic Theory. One major influential trend in psychogenics stems from the interpretation and modification of Freud's thinking (Schafer & Knudten, 1970). According to the psychoanalytic theory, people are born socially maladjusted, and their task is to become normal by successfully passing through several critical life stages. Moreover, a balance must be achieved between the three critical components of personality (i.e., id, ego, and superego). When a conflict is experienced between an adolescent's defective superego and antisocial id impulses, however, behavioral problems such as delinquency are presumed to emerge (Morgan, 1985; Griffin & Griffin, 1978). Delinquency is expected to result when the individual's mind is unable to achieve a balance between disciplined and impulse behaviours, which are based on early life experiences.

Cognitive-Behavioral Theory. The cognitive-behavioral perspective views maladaptive behaviours as the result of overt and covert cognitions (Platt & Prout, 1987). Based on the premise that people are unique individuals, this approach recognizes that people perceive their environments differently, and their "expectations about the results of behaviour may be as influential as the actual contingencies" they experience (Platt & Prout, 1987,

p.480). According to this theory, delinquent persons are assumed to distort reality and interpret situations in ways which promote acts of delinquency.

Within the cognitive-behavioral perspective, the social learning theory addresses the acquisition of both conforming and delinquent behaviour through processes of observation, imitation, and reinforcement history (Platt & Prout, 1987; Muuss, 1988; Griffin & Griffin, 1978; Schafer & Knudten, 1970; Rutter & Giller, 1984). The more respected and rewarded a particular model is, the greater the impact the model is expected to have on the observer's behaviour (Bartol & Bartol, 1989).

While some individuals transgress societal rules because of an absence of social skills, others do so because of expected reinforcements (Bartol & Bartol, 1989; Muuss, 1988). In other words, according to this perspective, those who engage in delinquency do so because they either have not experienced or witnessed adequate punishment for delinquent behaviours, or have experienced or witnessed rewards in the past for such behaviour. Rutter and Giller (1984) argued that the central concept of this theory is that consequences maintain or inhibit behaviour.

According to Muuss (1988), the social learning theory seems to have awakened society's concern about the potential danger to youth who are repeatedly exposed to aggressive models. Still, despite its strong theoretical foundation and empirical support, questions such as why some conforming and deviant acts are imitated while others are not (Griffin & Griffin, 1978), remain unanswered and serve to diminish the theory's explanatory power.

Attachment Theory. As a theory of interpersonal relationships, the main thesis of the attachment perspective is that the attachment system is the basic structure of behaviour. In fact, as a universal need, the need to attach is viewed as a critical determinant of behavioral pathology. While the ability to attach to significant others as a child appears to promote healthy attachment in adolescence and adulthood, insecure or disrupted attachments in childhood tend to increase one's risk for unhealthy future attachments.

Although the parent-child bond is not viewed as different in type from subsequent attachments, as the prototype for all later love relationships, it is considered the strongest and longest-lasting (Waters, Hay & Richters, 1986). According to Bowlby, the mother-child relationship determines the child's level of socio-emotional and mental adjustment, and serves as a buffer

against stress (Lewis, 1990). The bonding between parent and child at any age, and regardless of whether the joining results from adoption or natural childbirth, can be impacted by a multiplicity of internal and external factors. Some of these factors may include social concepts and supports present in the immediate environment, preparation for parenthood, and sense of entitlement to the child (Ward, 1981). Even though sensitive periods exist during the bonding process, the affective bond between parent and child is seen as mutually responsive to changes in the behaviour of either partner, which continues to evolve over time (Vaughn, Egeland, Sroufe, & Waters, 1979).

Although fathers have often been excluded from attachment investigations because of their inability to experience the same biological and physiological changes mothers undergo, attention has recently been directed at the father-infant bonding process as well. Ward (1981) proposed that fathers can experience a "psychological pregnancy", which seems to prepare them for their new role, as well as for the admittance of a new member to the family. This notion reflects the realization that the parent-child attachment is dependent upon mutually satisfying interactions, rather than simply a biological connection. In fact, studies reveal that the most critical precursors of secure attachment include consistency, contingent responsiveness, facilitation and cooperation, and a positive context for interaction (Waters et al., 1986).

According to attachment theory, youth who experience weak parent-child attachments tend to reject their parents as figures with whom to identify, and are unconcerned with the consequences of their behaviour on others. As a result, these youth are presumed to be vulnerable to exhibiting impulsive desires and delinquent behaviours.

Summary of the Psychogenic Approach. The central tenet guiding psychological theories is that the critical causal factors in delinquency reside within the individual's personality or mental processes. Delinquents "behave as they do because they are in some way 'sick', 'maladjusted', or 'pathological'" (Gibbons, 1976, p.74). Not only does the research fail to support the psychogenic contention that delinquents are more ridden with personality pathology than are nonoffenders (Gibbons, 1976), but it also points to the importance of including macrosystemic versus solely individualistic explanations in the study of delinquency.

### Sociogenic Approach

Unlike the biological and psychological theories which have been criticized for focusing on innate or intrapsychic factors to the exclusion of the social structure, the leading sociological theories specify exogenous factors as promoting delinquency (Agnew, 1993; Griffin & Griffin, 1978). The sociogenic approach assumes that personality is structured by one's relation with the environment, and thus involvement in delinquency results from abnormalities in one's social existence (e.g., family stress such as alcoholism, violence, or rejection), or from negative societal attitudes (Schafer & Knudten, 1970; Morgan, 1985). While some sociological theories explain how delinquency results from the limiting effects of one's social status, others focus on the norm-value conflicts that may impinge on an adolescent.

Anomie or Strain Theory. Within the structural-functionalist approach, Durkheim's anomie theory presumes that delinquency is a consequence of strain or a breakdown in conforming-producing social processes. When traditional societal norms and rules lose their authority, a state of normlessness (i.e., anomie) and confusion results (Elliott et al., 1979; Ellis, 1987; Hagan, 1986), and the potential for delinquency is created.

In Merton's revision of anomie theory, behaviour is assumed to be determined by one's culture, through the setting of goals and the designation of appropriate means for achieving them (Bartol & Bartol, 1989). Although people accept the values promoted by society, when a disjunction between goals and legitimate means occurs, strain results, and the potential to choose illegitimate and delinquent means becomes available (Bartol & Bartol, 1989; Ellis, 1987; Gibbons, 1976; Griffin & Griffin, 1978; Rutter & Giller, 1984; Elliott et al., 1979; Segrave & Hastad, 1985; Giallombardo, 1982).

Although strain theory sees the offender as forced into crime by culturally induced desires that cannot otherwise be satisfied, Agnew (1993) argued that law-violating behaviours are only one potential alternative to "blocked" goals. According to Merton (1982), there are five possible strategies of adaptation (conformity, retreatism, ritualism, rebellion, and innovation), and people may shift from one alternative to another depending on the social activity or situation. While these modes of adaptation have been criticized on a theoretical level for failing to explain why one type of adaptation to strain occurs over another, or why some individuals under

strain conform while others deviate (Rutter & Giller, 1984), it does account for the finding that youth fluctuate between conformity and delinquency.

Subcultural Theory. While subcultural theory is similar to strain theory in its focus upon discrepancies between goals and legal means, it further presents an account of how goal frustrated youth form their own clique, in an attempt to resolve the problem of status frustration. According to Cohen (1982), the delinquent subculture takes its norms from the larger culture and turns them upside down; it deals with the problems of adjustment by providing status criteria which these youth can meet (Hagan, 1986). Although delinquent behaviours are considered 'normal' for the particular subculture, unfortunately aggressive and risky behaviours that might otherwise have been avoided by youth become legitimized within this group (Wilkinson, 1985).

Unsurprisingly, then, the role of delinquent associates and the importance of peer approval are the most frequently stressed variables in the subculture formulation. Exposure to deviant influences is expected to make it more likely that an individual will engage in delinquent behaviours (Ellis, 1987; Segrave & Hastad, 1985; Violato & Travis, 1994). Evidence to support the 'normal sub-culture' view stems from studies that have found that delinquency desists after adolescence, and that many delinquents do not show any signs of emotional or behavioral disturbances (Rutter & Giller, 1984).

Social Control Theory. Based on Hirschi's underlying assumption that all humans are basically disposed toward criminality, the social control theory argues that the potential for delinquency is greatest when there is insufficient internalization of norms, or a breakdown in social controls (Elliott et al., 1979). While direct social controls such as external restrictions and punishments can be effective in promoting conformity, indirect and internalized controls based on affectional identification with parents are considered more crucial (Rutter & Giller, 1984; Krohn, Massey & Skinner, 1987). The social bond that ties youth to their surrounding culture is comprised of attachments, commitments, involvements, and beliefs (Amdur, 1989; Ellis, 1987; Rutter & Giller, 1984; Agnew, 1993).

The element of attachment, refers to the affection and respect an adolescent holds toward significant others, such as parents and teachers, and their opinions (Agnew, 1993; Bartol & Bartol, 1989). The social control

theory predicts that the more attached adolescents are to conventional members of society, the more likely they will be to conform with society's rules, and the less likely they will be to engage in delinquency. In fact, although some objects are more important than others, it seems that attachment to almost any object (e.g., home town, family dog), may promote moral behaviour and reduce delinquency (Brownfield & Thompson, 1991; Hirschi, 1982; Segrave & Hastad, 1985). Unlike the unattached adolescent, an attached youth may be deterred from engaging in delinquency by having his or her parents' opinions and expectations psychologically present (LeBlanc, 1992).

Involvement, which is the second element of the social bond, refers to the amount of time and energy an individual expends in conventional activities (Ellis, 1987; Bartol & Bartol, 1989; Agnew, 1993). In keeping with the motto, "idle hands are the devil's workshop" (Hirschi, 1982, p.181), the social control theory posits that "a person heavily involved in conventional endeavours has neither the time nor the energy to engage in deviant behaviour" (Bartol & Bartol, 1989, p.196; Hirschi, 1982). Thus, involvement in and attachment to conventional groups and institutions, such as the family and school, are expected to keep youth highly integrated in conventional social roles.

The third, more rational component entitled commitment, involves a person's physical and emotional investment in conventional living (Bartol & Bartol, 1989; Hirschi, 1982). Again, it is assumed that the more an individual commits to activities (e.g., studying), the less likely the person will be to engage in acts that may jeopardize what (s)he aspires to.

Finally, belief refers to the degree to which a person accepts and internalizes the society's value system (Bartol & Bartol, 1989; Hirschi, 1982; Agnew, 1993). Based on a continuum, people's conviction regarding obedience to society's rules vary in degree, and the less they believe they should obey the rules, the more likely they are to violate them (Hirschi, 1982).

The social control theory predicts that youth with low social controls are more likely to become delinquent than youth with high social controls, because they are provided with greater freedom to deviate and satisfy their own needs and wants. Instead, integration coupled with commitment constitutes the bonds which tie an individual to the prevailing social order. In spite of it

being criticized for explaining the absence rather than presence of delinquency, the social control theory appears to receive at least moderate empirical support (Agnew, 1993). Not only did Hirschi himself test his theory, but since then, several other investigators have scrutinized the validity and reliability of the theory as well.

Societal-Reaction Labelling Theory. Under the rubric of symbolic interactionism, societal-reaction theory is concerned with the role of social meanings and definitions in the production of delinquent behaviour (Hagan, 1986). The theory posits that involvement in delinquency can either go undetected (i.e., primary deviance) or detected (secondary deviance); when it is undetected, repercussions are minimal to none for the individual. However, when a juvenile is detected, labelled, and treated as a delinquent, his or her self-concept can be transformed from an "occasional" to "career" delinquent (Ellis, 1987; Rutter & Giller, 1984; Griffin & Griffin, 1978; Krohn et al., 1987; Elliott et al., 1979; Tannenbaum, 1982; Wellford, 1982).

While most labelling theorists argue that successful labelling has detrimental and long-lasting effects on the adolescent, others suggest that it may produce a beneficial paradoxical effect. Specifically, labelling may actually instigate socially acceptable behaviour, as a result of encouraging the adolescent to take responsibility for his or her behaviour, and thus escape the label (Griffin & Griffin, 1978). Rutter and Giller (1984) argued that since people vary in how they respond to both permanent and irreversible labelling, there is the potential that delinquency will be either deterred or amplified.

The main postulate of the labelling perspective is that youth become delinquent as a result of internalizing the definitions others hold of them (Griffin & Griffin, 1978; Giallombardo, 1982; Amdur, 1989). Yet, several criticisms of the theory have followed from this tenet. First, this tenet implies that the delinquent is a passive victim of the justice system; and second, it implies that in the absence of all labels and rules, delinquency would cease to exist. By focusing on the effects of the process of labelling, it seems as though the societal-reaction theory has lost sight of the delinquency problem.

Differential Association Theory. According to Sutherland and Cressey's differential association theory, delinquent conduct is a "function of an excess of learned definitions favourable to the violation of the law, over definitions unfavourable to the violation of the law" (Krohn et al., 1987,

p.456; Schafer & Knudten, 1970; Griffin & Griffin, 1978; Bartol & Bartol, 1989). Since delinquency is presumed to depend on the frequency, priority, duration, and intensity of associations to delinquent persons, mere exposure to criminal behaviour is not expected to necessarily result in delinquency. The critical aspect of the theory is that delinquency is promoted when a higher ratio of delinquent over nondelinquent affiliations exist (Bartol & Bartol, 1989; Segrave & Hastad, 1985; Amdur, 1989).

Despite attempts at empirical testing, differential association theory has been criticized for its lack of clarity and precision (Bartol & Bartol, 1989). For instance, definitions of frequency, priority, and intensity are operationally ambiguous. Moreover, the implication that youth become delinquent because of "isolation from anticriminal patterns" (Giallombardo, 1982, p.91), is confusing when evidence of criminal influences in their lives cannot be found.

Family Systems Theory. The family systems theory advances the thesis that delinquent and criminal behaviour is learned by youth from their interactions with others in the family context. While one variant of the theory states that parents model dysfunctional and delinquent behaviour, the other discusses the effects of weak parent-child attachments; for example, feelings of rejection in the youth, and a lack of responsibility and concern for consequences (Violato & Travis, 1994).

Family cohesion and adaptability to developmental and external pressures are considered important parameters for evaluating family functioning, since extremes in either parameter are believed to characterize a dysfunctional system (Prange, Greenbaum, Silver, Friedman, Kutash, & Duchnowski, 1992). Studies have shown that dysfunctional or delinquent families are either extremely enmeshed with or disengaged from each other, and seem to be less cooperative than functional or nondelinquent families (Tolan, Cromwell, & Brasswell, 1986). Moreover, unlike adaptive families, delinquent families are disjointed, disorganized, and defensive in both their conversations and interactions.

Like the structural-functional perspective, family systems theory maintains that delinquency serves a significant function; delinquency acts as a "homeostatic device that signals a failing family system. This process brings aid to the family from extended family, social agencies, or the community,

under the guise of helping the family to cope with or reform the delinquent" (Tolan et al., 1986, p.624). With the new focus of rehabilitating the delinquent, the adolescent introduces a problem that "can ally disengaged parents, induce parents to reclaim previously abdicated authority and executive functions, and mobilize family members to form a cohesive unit" (Tolan et al., 1986, p.624).

Thus, the basic tenets of the family systems theory reflect ineffective, contradictory, or inefficient parental authority, coupled with disjointed family communication. Rather than viewing delinquency as an 'adolescent problem', systems theory holds the whole family responsible for delinquent behaviour and conflict.

Summary of the Sociogenic Approach. Despite some negative evaluations, sociological explanations are presently judged to be the most influential theories in explaining delinquency (Schafer & Knudten, 1970). In fact, one of the commendations attributed to the sociogenic approach is that it has "expanded the analysis of delinquency and crime well beyond the narrow individual-centred theories that once prevailed" (Giallombardo, 1982, p.91).

#### Interdisciplinary Approach

While psychologists have focused on individual systems, sociologists have emphasized peer group and neighbourhood influences in explaining delinquency. However, according to Bartol and Bartol (1989), between "these two orientations there exists a void of knowledge about delinquency development" (p.184). Since the multi-faceted nature of delinquency has been recognized, a more inclusive approach to the study of delinquency is preferred to the pointless attempts at finding a single factor or theory to draw from. In recognizing that many academic disciplines have developed insights useful to an understanding of delinquency, the interdisciplinary approach attempts to synthesize and integrate them into a more comprehensive framework (Griffin & Griffin, 1978).

Etiological models of delinquency need to be more interactional, reciprocal, and dynamic, rather than recursive and static (LeBlanc, 1992; Bartol & Bartol, 1989). As though envisioning spirals within spirals, each influencing the other, Bartol and Bartol (1989) argued that the delinquent is not an isolated entity, but rather "a totality who views the world from a

certain perspective, functions as an ongoing system, and interacts with other systems" (p.251). For instance, while the weakening of bonds to parents, the school, and conventional beliefs may initially cause an individual to engage in delinquent acts, delinquency eventually becomes its own indirect cause as it continues to weaken the original bonds. Unless the causal loop is interrupted, delinquent involvement is expected to continue (Bartol & Bartol, 1989).

While it can be seen that the major delinquency theories reviewed tend to be in agreement with regard to their specification of independent variables (e.g., weak attachments to parents; affiliations with delinquent peers), differences emerge in their discussion of how and why intervening processes lead to delinquency (Agnew, 1993). Still, on their own, none of these approaches and theories are rich enough to account for the complex intricacies of delinquency. Since delinquency is likely a product of multiple causation, a viable model should include multiple pathways (Gibbons, 1976; Violato & Travis, 1994; Morgan, 1985). The interdisciplinary approach represents one such model because it draws from a broad theoretical base.

Gibbons (1976) suggested that more is required than simply gathering facts in delinquency research. What is needed is the testing of explicit hypotheses that view delinquency as a result of an enormous range of interrelated causal factors (Bartol & Bartol, 1989; Cicchetti & Olsen, 1990). While Barton and Figueira-McDonough (1985) considered it an attempt "to bring order to this apparent theoretical chaos" (p.119), Segrave and Hastad (1985) discussed the integration of theoretical formulations as an orientation that encourages theoretical cooperation versus competition. According to Griffin and Griffin (1978), once the disciplinary barriers are broken down, theorists can move on "with joint efforts to solve common problems" (p.207).

Summary of the Interdisciplinary Approach. As shown in summary Table 1, the study of juvenile delinquency has led to various theories within the disciplines of human biology, psychology, and sociology. With each of these approaches and corresponding theories attempting to explain delinquency through their own 'lens', certain factors are emphasized over others, thereby presenting a rather limited view of this social phenomenon. It is the interdisciplinary approach, however, that points to the importance of theoretical unity, and encourages a concerted effort amongst researchers working toward a better understanding of the causes of delinquency.

TABLE 1  
Summary of Delinquency Theories

Approach	Theories	Description	Utility
Biogenic	Somatic, XYY Chromosome, & Neurohormonal	Delinquents are viewed as physically, genetically, or physiologically defective.	Although more sophisticated in its methodology, it still has not presented convincing or sufficient evidence for its account of delinquency.
Psychogenic	Psychoanalytic Cognitive-Behavioral, & Attachment	Delinquency is explained as the result of mental maladjustment due to early childhood experiences & flawed cognitive processes.	While attachments have been implicated in delinquency research, studies show that few delinquents, are in fact antisocial or pathological.
Sociogenic	Anomie/Strain, Subcultural, Social Control, Societal Reaction Labelling, Differential Association, & Family Systems	Factors external to the youth are presumed to account for delinquency, such as family stress, limited opportunities, or norm-value conflicts.	Considered at present to be the most influential and broad-based; acclaimed for shifting the research focus from a micro to macro-analytic perspective.
Inter-disciplinary	(various combinations)	Describes delinquency as the result of multiple, reciprocal, & dynamic biological, mental, & environmental influences.	Viewed as a relatively new, but optimistic trend in its attempt to unite disciplines in the study of delinquency; favourable results have been attained thus far.

### Correlates of Delinquency

As can be noted from the preceding review, there is an overlapping similarity between theoretical orientations regarding correlates of delinquency. Many theories predict, for example, that an impulsive adolescent male, who is affiliated with delinquent peers, and is exposed to harsh or erratic discipline in his family, is at great risk for delinquent involvement. On the other hand, an adolescent who believes and is committed to conventional rules and goals, is competent at school, and is attached to law-abiding adults, may be foreseen to resist or avoid delinquency.

Although several variables have been found to be related to the development of delinquency, a review of only the primary ones will be possible here. These include family, peers, school, and victimization.

#### Family

Considered the first and most important institution, the family has become increasingly important in the treatment of youth problems (Morgan, 1985; Tolan et al., 1986; Wilkinson, 1982; Henggeler, 1989). Due to the plethora of variables, the psychological and sociological literature is confusing in its delineation of the family-delinquency relationship. Thus far, the role of the family in delinquency has been "roughly dichotomized into studies that examine family structure and those that examine family process" (Bartol & Bartol, 1989, p.186). A review of both family structure and process variables associated with delinquency will follow.

Family Structure Variables. Studies of structure explore variables such as family size, birth order, spacing of siblings, number of natural parents living with the children, income, place of residence, and socioeconomic status variables (Bartol & Bartol, 1989).

While studies appear relatively consistent in the finding that the larger the family size, the more difficult it is to supervise and discipline the children, and thus the greater the chance of delinquent engagement (Wells & Rankin, 1988), less consistency has been achieved in the exploration of socioeconomic influences. Still, some have reached the compromise that poverty and poor living conditions may indirectly predispose youth to delinquency; serious socioeconomic disadvantages can impede good parenting, thereby making delinquency an attractive alternative for youth (Rutter & Giller, 1984).

Changes within the family system are reflected by the many studies conducted on households not representing the nuclear family structure, which attempt to investigate whether youth are negatively impacted by these changes. Despite equivocal results, Ensminger, Kellam, and Rubin (1983) contend that a "very entrenched belief within the delinquency field is that children from 'broken' homes are more likely to be delinquent than children from 'intact' homes" (p.75). While official statistics show that delinquents come disproportionately from broken homes, self-report studies have yielded mixed results (Bartol & Bartol, 1989).

Although any type of broken home can be disruptive on family members, Morgan (1985) suggests that the impact of this living condition will differ depending on the precipitating cause. For instance, while separation or divorce can cause frustration and anger, death of a spouse or parent tends to cause sorrow. Many theorists have proposed that broken homes due to separation and divorce are associated with delinquency and conduct disorders because of the discord resulting from the break-up (Rutter & Giller, 1984; Crowell & Waters, 1990). In fact, it has been found that children from broken, but conflict-free homes may be less likely to become involved in delinquency than children from intact but conflict-ridden homes (Bartol & Bartol, 1989). While conflict is a normal part of every family, differences emerge in people's ability to manage conflict effectively.

According to Wilkinson (1982), periods of acceptance and rejection of the broken home-delinquency association seem to be determined by changes in cultural and ideological conditions. Society seems to hold the bias that youth with only one parent are not adequately supervised, and thus require greater external control and intervention.

Family Process Variables. Family process studies focus on parent-child interactions, disciplining styles, the quality of marital relationships, and the general emotional tone within the family (Bartol & Bartol, 1989).

In presuming that youth grow up with little parental love and support, Stein (1990) argued that delinquent behaviour may reflect youth's unmet needs for affiliation. Lacking strong attachments, youth may feel less connected to society and thus, less willing to conform and respect socio-cultural norms. Employing the LISREL technique, Simons, Robertson, and Downs (1989) found the predominant causal flow to be from parental rejection

to delinquency. In not having a caring relationship to model at home, children experience greater difficulty in forming caring, cooperative, and warm relationships with others. Furthermore, with weak or nonexistent parent-child attachments, children likely remain uninfluenced by their parents' opinions, values, and beliefs (Simons et al., 1989).

One of the most powerful predictors of delinquency is that of family relations; specifically, low family cohesion and high family conflict predicts delinquent conduct (Henggeler, 1989). Delinquent families tend to have more frequent parental disagreements, child-skewed power distributions, and lower levels of positive emotional expression (Tolan et al., 1986; Mussen et al., 1990; Hirschi & Gottfredson, 1988).

Parenting styles have also been associated with adolescent delinquency. Permissive parenting seems to be most closely related to delinquency, followed by the authoritarian style (Baumrind, 1971; Loeber & Stouthamer-Loeber, 1986; Mussen et al., 1990). While authoritarian parents tend to exclude adolescents from the decision making process, permissive parents are found at the other extreme in their allowance of youth to make all decisions without parental participation. Lax parents have been faulted for not being sufficiently attuned to what constitutes problematic behaviour in their children and for promoting impulsiveness due to the lack of structure provided at home (Bartol & Bartol, 1989).

In summary, several family process variables have been identified as related to the phenomenon of delinquency. For instance, lack of parental supervision, parental rejection, and minimal parent-child involvement, are among the most powerful predictors of delinquency, while medium-strength predictors include parents' marital relations and parental criminality, and weaker predictors are lack of parental discipline, parental health, and parental absence (Loeber & Stouthamer-Loeber, 1986; LeBlanc, 1992; Rutter & Giller, 1984; Mussen et al., 1990; Henggeler, 1989; Hirschi & Gottfredson, 1988). Evidently, as the number of family 'handicaps' increases, the potential for child behaviour problems also increases. According to LeBlanc (1992, p.349), "structural and family environmental factors are distant explanatory factors of offending while constraints are proximal factors, and bonding is the 'hyphen' between them."

## Peers

Like adults, youth seek the approval of significant others in the world in which they live in order to reinforce their sense of belonging. If this approval is denied, then they may feel powerless, alienated, hostile, bored, or personally inadequate (Gibbons, 1976). While these feelings may lead some youth to become social isolates, others may search for delinquent groups that will provide them with approval and self-confirmation.

Alone and alienated, many youth gravitate to gangs in the hopes of filling the voids in their lives, and finding people who will give them the respect and refuge they may not experience at home. According to Ellis (1987), delinquency "has the dual advantage of being exciting and conferring status within the group of adolescent peers" (p.191). Moreover, as discovered by Palenski and Launer (1987), the peer group can also provide its members with survival information and techniques on how to 'make it' once they reach a state of independence.

Based on the adage, 'birds of a feather flock together', peer influence and pressure are considered crucial dimensions in the etiology of delinquent behaviour (Brownfield & Thompson, 1991; Warr, 1993). However, research studies present mixed results with regard to peer attachments among delinquents. While some have found delinquent youth to both identify with and respect their friends less than nondelinquents (Brownfield & Thompson, 1991), other researchers have found delinquents to be just as closely attached to their deviant peers as nondelinquents are to their nondeviant peers (Henggeler, 1989).

Putallaz and Dunn (1990) have contended that socially unaccepted youth are at risk for a variety of behavioral and psychological problems in later life. Delinquents seem to be less integrated in their social networks than their nondelinquent peers, and as peer status decreases, risk for delinquency increases (Bartol & Bartol, 1989). In addition, although the reciprocal interaction between delinquency and peer ostracism is typically great for girls, in the male dominance hierarchy, retaliatory fighting and other delinquent behaviours are often crucial in gaining and maintaining a high status in the peer group (Maccoby, 1986).

Henggeler (1989) reported that affiliations with delinquent peers has accounted for up to 28 to 33% of the variance in delinquency studies. While

the majority of studies have found a positive correlation between attachment to peers and delinquency (Brownfield & Thompson, 1991; Hirschi & Gottfredson, 1988; Giallombardo, 1982), recent evidence also suggests that youth susceptibility to negative peer pressure may be attenuated by positive family relations (Violato & Travis, 1994; Henggeler, 1989). From this perspective then, parents are viewed as potential barriers to, and peers as potential instigators of delinquency. Still, according to Warr (1993), although attachment to parents may inhibit the development of delinquent friendships, it does little to reduce delinquency among those who already have delinquent friends. Bartol and Bartol (1989) found that while parents are more influential in settling issues relevant to future plans, occupational choice, religion, and education, peers tend to help settle issues of immediate relevance to the adolescent's life, such as whether or not to use drugs.

#### School

Because of the large amounts of time youth spend in school, the formal education system has been recognized as a significant contributor to the socialization process. In particular, the school experience is considered important in shaping the child's attitude and behaviour toward authority. When both the youth and teachers involve themselves in the process of learning and teaching, a sense of accomplishment tends to develop and success is achieved (Jenkins, Heidermann, & Caputo, 1985).

Like the family and peer system, however, the school system is not always successful in socializing its members, and consequently, has come under scrutiny as potentially promoting delinquent behaviour. According to the 'school deficit hypothesis', the educational system is seen as cultivating a sense of failure, by employing negative labels and treating some children as slow or special learners. As the school becomes aversive and frustrating, children are predicted to violate its rules and regulations (Bartol & Bartol, 1989; Elliott, 1982). While these 'delinquent behaviours' may simply be expressions of protest against a restraining system, before long the children are considered delinquent.

Not only does academic frustration appear to be at the root of the issue of adolescent delinquency, but prolongation and exclusion from the workforce is another contributing factor. The greatest amount of strain is said to be experienced by persons committed to academic success, but who also perceive

the school curricula as acting "as a barrier to access the mainstream of social life" (Ellis, 1987, p.202). As a result, for some young people, school experiences "let them down", as well as, reinforce feelings of incompetence and suppression. Educational systems that promote student passivity, deny youth rights, and exclude 'marginal' youth from school activities, appear to contribute to youth alienation and subsequent delinquency (Henggeler, 1989). By not fitting the curriculum to the child's needs, the child is forced to adjust to the school. According to Morgan (1985), in the process of adjusting, some children lose interest in conventional dogma and turn to delinquency instead.

Several researchers have discussed the relationship between poor school performance, dropping out of high school, and high rates of delinquent conduct (Henggeler, 1989; Violato & Travis, 1994; Hirschi & Gottfredson, 1988; Smith et al., 1995). According to Hurrelmann and Engel (1991), the percentage of all forms of reported delinquency are greatest for youth who have experienced or face the risk of school failure. Although most adolescents recognize the problems they will encounter without an education, they also acknowledge their lack of success in school endeavours (Palenski & Launer, 1987). Thus, adolescents who attend school regularly and experience minimal academic dysfunction are predicted to be at a lower risk for delinquency.

Rutter and Giller (1984) argue that there is a substantial body of empirical research that shows a consistent association between low intelligence and an increased risk for delinquency. Although researchers such as Hirschi (1969) and Hindelang (1973) postulated that intelligence contributes to school failure, which in turn contributes to delinquency, Bartol and Bartol (1989) argued that intelligence quotients are weighed down by a complex array of misconceptions and misinterpretations, thereby limiting their explanatory power.

### Victimization

Cicchetti and Olsen (1990) have contended that maltreated infants are significantly more likely to be insecurely attached to their caregivers, and when they grow up, they tend to suffer from poor peer relations, cognitive deficits, and low self-esteem. Moreover, they also display higher levels of aggression, and the emotional damage seems to have long-lasting effects.

The literature on child development reveals that many youth experience a variety of forms of abuse, perpetrated by persons both known and unknown

to them. Paperny and Deisher (1983) reported the findings of a national study conducted in 1978, whereby the rate of abuse for 12 to 17 year olds was over 27%; "one-third of those reports were for abuse, and two-thirds were for neglect" (p.499). In this light, delinquent behaviours such as running away from home can be viewed as survival responses to rigid parental control, as well as caretaker physical, emotional, and sexual abuse.

Esbensen and Huizinga (1991) found a remarkably strong relationship between the variety of delinquent involvement and the likelihood of victimization. Relative to control subjects, abused and neglected youth tend to have a larger mean number of offenses, and at an earlier mean age (Scudder, Blount, Heide, & Silverman, 1993). Support has been found for the argument that a child abused at a younger age is at a higher risk for subsequent delinquent behaviours than a nonabused child (Scudder et al., 1993). According to Smith et al.'s (1995) study, about 82% of all respondents stated they had been victimized at school within the past year. Moreover, among those victimized, there were substantially more youth who reported also engaging in acts of delinquency. According to Letourneau (1994), this position suggests that delinquent behaviour patterns may develop in response to victimization, especially when there is a need for the offender to master his or her own feelings of powerlessness and being controlled.

Consistent with these findings, is the report by many incarcerated youth that they have been victims of parental abuse and neglect (Simons et al., 1989). Brown's (1984) study revealed that physical abuse is not positively correlated with any form of delinquency, but neglect and emotional abuse is with all forms of self-reported delinquent behaviour. Thus, although child maltreatment has been typically viewed as less problematic than physical abuse, in actuality it may have more serious social consequences than originally assumed.

#### Summary of Correlates of Delinquency

Despite having identified many of the factors that place children at risk for delinquency, as a society, we still have a limited understanding of how the risk factors operate to produce delinquency. Even with regard to theories, Lipton and Smith (1983) reported that regardless of the particular theory tested, "few studies have accounted for more than 30 percent of the variance in delinquent activities among various samples of youths" (p.199). Since

ethical guidelines restrain researchers from conducting true experimental manipulations on youth (Amdur, 1989), causal inferences based on correlational research will likely continue to predominate.

#### Female Delinquency

While some researchers maintain that females are more law-abiding than males, and less aggressive and socially destructive (Giallombardo, 1982), others contend that females are not less delinquent, but rather better able at escaping detection because of their 'devious nature' and convenient caregiving roles (Bartol & Bartol, 1989). In fact, proponents of the latter perspective point to the consistent finding that although males outnumber females in the perpetration of delinquency and crime, recent studies of hidden delinquency indicate that girls are more frequently involved in delinquency than official statistics suggest (Gibbons, 1976; Mussen et al., 1990; Jayewardene & McWatt, 1984; Bartol & Bartol, 1989; Hagan, 1986).

In assuming that female misconduct is relatively uncommon and unimportant, however, the phenomenon of female delinquency has either been neglected, or explained in terms of developmental factors such as menstruation and sexuality. Moreover, although substantial gender differences can be expected in the incidence of delinquency, traditional theories have been based on data exclusively from male adolescents (Henggeler, 1989). As a result, there is a recognized need for research studies comparing the behaviour of female and male delinquents.

While theories of male delinquency tend to emphasize the etiological importance of peer relations and academic-career achievement, theories of female delinquency stress the roles of personality deficits and of dysfunctional family relations (Henggeler, 1989). The most influential sociological interpretation of female delinquency maintains that girls become involved in delinquency because of "tension-ridden home situations in which they are on poor affectional terms with their parents" (Gibbons, 1976, p.179). According to this perspective, having experienced repeated rejections and deprivation of love and care, girls attempt to satisfy their affectional needs by seeking extrafamilial relationships (Giallombardo, 1982; Widom, Katkin, Stewart, & Fondacaro, 1983; Gibbons, 1976). In particular, sexual delinquency has been interpreted as an effort to establish such affiliative bonds.

Accordingly, low parental attachment is considered the most important

predictor of female delinquency (Barton & Figueira-McDonough, 1985), with high rates of conflict between mother-daughter dyads also being implicated (Henggeler, 1989). Bartol and Bartol (1989) contended that girls are assumed to "conform to societal expectations more than boys because society presumably makes a special attempt to bond girls to parents, social institutions, and values" (p.280). In terms of female delinquents then, this implies that their bonds to society must be weakened to a greater extent than would be necessary for boys.

Even though strong support has been provided for the theory that child maltreatment is a precursor to later delinquency, adult criminality, and violent criminal behaviour, the occurrence of sexual abuse in particular has been found to be a great problem in the childhoods of female offenders. While child sexual abuse prevalency rates of **nonclinical** female studies range from 4.8% to 27.0%, with an approximate mean of 20% (Violato & Genuis, 1995), studies of female **clinical** groups indicate that approximately 33% are sexually abused by the time they reach the age of 18, and an enormous number experience child neglect and physical abuse (Muster, 1992; Federle & Chesney-Lind, 1992). Not only does female abuse start earlier than abuse of males, but it is frequently perpetrated by someone the girl knows (i.e., relative, parental figure).

In light of all this, it should not be surprising to discover that over 80% of these girls run away from home, with close to half of them running away ten or more times (Federle & Chesney-Lind, 1992). However, not only has society criminalized the survival and coping strategies utilized by these girls, but it has re-placed them into equally abusive and damaging situations. For instance, one form of residential treatment has youth placed in foster homes; Federle and Chesney-Lind (1992) found that girls experience a high rate of sexual abuse in foster home placements. Such an occurrence surely aggravates an already complicated and traumatic existence for many adolescent females. Apparently, the needs of these girls are not understood, let alone being met.

Another popular, but still empirically questionable explanation involves the 'masculinity of liberation' hypothesis, which presumes that as the female personality becomes more masculine it frees girls for delinquent conduct and crime (Wilkinson, 1985; Bartol & Bartol, 1989). An implicit assumption of this

perspective is that a masculine orientation (in either a male or female), is more likely to be associated with criminality than a feminine one because masculinity is related to active and aggressive behaviour styles. In contrast, females who develop into passive and gentle members of society are viewed as less inclined to violate social norms and laws as a result of the socialization they undergo and the limited opportunities available to them (Gibbons, 1976; Giallombardo, 1982; Jayewardene & McWatt, 1984). Because emancipation is believed to tantalize girls with the privileges males take for granted and females are typically closed off from experiencing, patterns of female delinquency are viewed as a shady side-effect of the feminist movement.

Related to this hypothesis is the contention that feminism has caused an increase in female criminality. It has been suggested that "with the changing nature of gender roles in contemporary society, delinquent behaviour in females is becoming more similar to delinquent behaviour in males" (Henggeler, 1989, p.64; Rutter & Giller, 1984; Mannarino & Marsh, 1978). While patriarchal parents believe that girls require close supervision, monitoring, and controlling, egalitarian parents reduce their control and increase their willingness to take risks on the adolescent girl. Presumably, it is this willingness to take risks that acts as a precursor to delinquent behaviour (Bartol & Bartol, 1989).

According to Wilkinson (1985), however, the data collected thus far has not determined whether female crime has actually increased dramatically relative to male crime, and become more masculine since the advent of the feminist movement. Henggeler (1989) asserted that "the masculinization of female criminality is more a social invention than empirical reality" (p.66). Despite many equivocal findings, one certain result of the feminist movement has been the revelation of the apparent double standard within both theories and the treatment of female delinquents. Various actions taken against female juveniles have been recognized as more harsh than those directed at males involved in comparable forms of misbehaviour (Gibbons, 1976; Jayewardene & McWatt, 1984). For instance, while most males are apprehended for acts of burglary and assault, females tend to be taken in for incorrigibility, sexual delinquency, or truancy. The rates of female status offenses still comprise a substantial proportion of all girls' arrests and reasons for institutionalization (Chesney-Lind, 1989). In fact, Federle and Chesney-Lind

(1992) reported that approximately 85% of girls are held for 'nondelinquent' offenses including status offenses, dependency, and neglect.

Some researchers have argued that "the disparate treatment of girls is the result of misguided chivalry and paternalism, and that many juvenile justice officials hold a double standard of morality that severely sanction" female misconduct (Henggeler, 1989, p.71; Gibbons, 1976; Bartol & Bartol, 1989; Rutter & Giller, 1984; Federle & Chesney-Lind, 1992). The justice system's consistent response with female delinquents likely reflects society's 'concern' for the unsupervised activities of girls (Giallombardo, 1982). According to Jayewardene and McWatt (1984), since parents accept wider parameters of behaviour for sons than daughters, complaints of "unacceptable behaviour on the part of a daughter is often all that is necessary to initiate police and court activity" (p.206). Even though for many girls, these may actually be expressions of their difficulties within the primary institutions of family and school, their encounters with 'the system' have typically resulted in the "transinstitutionalization" of females into mental health and justice facilities for 'inappropriate' behaviours.

#### Summary of Female Delinquency

Whether a reflection of our society's patriarchal influence, or the belief that female delinquency is less frequent and serious than male delinquency; a review of the voluminous literature reveals that almost all the theories propounded about delinquent behaviour focus on boys as the primary concern. Because female delinquency tends to be discussed as an after-thought and has been superficially analyzed as though less interesting than male delinquents, little is known on the developmental course of delinquent activities in girls (Giallombardo, 1982). Still, Rutter and Giller (1984) argued that "it warrants a much greater research investment than it has received up to now, because an understanding of why girls are less prone to delinquency might give insights into the genesis of delinquent behaviour generally" (p.132).

#### Statement of Problem

It has been argued that more studies are needed in understanding which youth are at the greatest risk for developing behavioral problems (Jensen, Koretz, Locke, Schneider, Radke-Yarrow, Richters, & Rumsey, 1993). In recognizing that no single theory, assessment procedure, or type of research

can meet the challenge of investigating all the possible variations of delinquent outcomes, the present study has limited its focus to only a few of the many variables discussed in the delinquency literature.

Informed by a review of the literature, a number of specific objectives and related research questions were identified to guide this research project. The underlying purpose of the present study is to investigate the etiology of youth criminality. This investigation is intended to extend most current research which has focused on identifying risk factors associated with juvenile delinquency. If such factors can be causally linked, then preventive measures and appropriate socio-legal interventions, for the reduction of youth crime can subsequently be addressed.

Three research questions are the focus of the present study:

- (1) What are the similarities and differences between a group of delinquent and nondelinquent institutionalized youth?
- (2) What are the gender differences in the nature of delinquency?
- (3) What is the impact of family variables such as attachment and family psychopathology on the delinquency relationship?

Answers to these questions are expected to contribute to the further specification of a developmental model of delinquency, so that a step toward greater understanding, prediction, and management of normal and abnormal youth behaviour may occur. Given the complexity and seriousness of delinquency, the information resulting from this study is expected to replicate, as well as supplement what is already known about the factors that increase youth vulnerability to delinquency.

## CHAPTER III METHOD

The present retrospective archival study compares delinquents with nondelinquents, and male with female delinquents. Following Jensen et al.'s (1993) recommendations for quality psychopathy investigations, and influenced by the objective to conduct meaningful and stable multivariate analyses, a large sample consisting of both males and females from a high-risk setting was obtained. In-patients files of youth treated at the Calgary Foothills Hospital's Young Adult Program (YAP) were utilized. In order to reconstruct the life histories of these youth, files were accessed from the Foothills Hospital Health Records Department. The information collected was based on hospital in-take, psychiatric assessments, nurses' daily interviews, counselling sessions (individual and family), and discharge and follow-up summaries. Thus, demographic and life history variables were derived from various interviews and reports completed during the young adults' hospital stay.

### Subjects

Records of patients (n=285) ranging in age from 10 to 19 years with a mean age of 15 were reviewed. Residents ranged in their length of stay on the psychiatric unit anywhere from 1 to 107 days, with an average stay of 34 days. YAP youth were either self- or other-referred (i.e., by the school, legal system, social services, or physicians), and were admitted for various psychiatric problems. Moreover, although many youth were new to the YAP, some had already participated in treatment at the Foothills Hospital. The number of YAP admissions for this group of youth varied from 1 to 10.

At the time of intake, a face to face interview is conducted with the young adult, while parent(s) or legal guardian(s) are asked to complete an independent questionnaire. During the interview, questions on the youth's living arrangements, family and medical history, drug use, sexual activity and development, and legal involvement are posed. Similarly, the information collected from the parent or guardian questionnaire includes demographics, the youth's learning history and perceived disabilities, family pathology, and family legal involvement. As some of the items overlap in the youth intake interview and parent's questionnaire, cross-validation and verification of

responses is possible.

The sample consisted of psychopathological youth who engaged in acts of delinquency to varying degrees without necessarily incurring legal action or retribution (i.e., hidden delinquency, or no record or arrests). As a result, to meet the current study's objectives, subjects were divided into the group of delinquent or nondelinquent based on documented evidence of the youth's involvement in 'official' or 'hidden' delinquency. Although this classification relies heavily on accurate recording by the intake worker, as well as honest self-reports by the patients and parents, criteria inclusion for delinquency was also based on the psychiatric discharge diagnosis of conduct disorder. One reason the legal and psychiatric categories of delinquency and conduct disorder were fused rests with the definition of delinquency adopted in the present study. Another explanation for including the conduct disorder diagnosis as part of the delinquency classification, is that it is believed to increase the measurement accuracy of delinquent conduct by relying on both youth reports and professional assessments rather than depending on only one to the exclusion of the other. Any documented evidence within patient records that indicated the commission of status or criminal offenses with or without coming to official attention, or having received a discharge diagnosis of conduct disorder, resulted in the youth being considered a member of the delinquent group. Consequently, of the 285 patients, 155 (54%) were identified as delinquents and 130 (46%) comprised the comparison nondelinquent group.

#### Subject Selection

Through the use of a computer program employed by the Foothills Hospital Health Records Department, charts of patients referred and subsequently treated within the YAP were randomly selected by discharge date between January 1989 to December 1994. Records were included in the investigation provided patients had been admitted for psychiatric concerns, had consented to research involvement and publication, and had spent the majority of their hospital stay on Nursing Unit 26 (YAP floor).

#### Instrument and Procedure

Prior to beginning the data collection phase, the researcher identified the primary domains for measurement based on previous research. A protocol was designed with the intent of collecting information drawn from admission

assessment interviews and records detailing the progress and disposition of each youth up until discharge, and when possible with follow-up summaries. While Appendix A contains the complete protocol developed by the researchers for data collection, Table 2 contains the specific items and variables explored for the purposes of the present investigation. The condensed protocol presented in Table 2 delineates the two areas of patient demographics and developmental life history variables.

The patient demographics include the collection of information on important variables such as the young adult's age, gender, race, and socioeconomic status, as well as with whom the youth was living, who referred the youth to the YAP, the number of times (s)he was admitted to the YAP, how long (s)he stayed in the hospital, and the youth's discharge diagnosis.

Within the developmental life history domain, specific data on early childhood and adolescent experiences were delineated, and coding categories were either global or specific. For instance, while early childhood milestones were coded as having been reached within 'normal', 'delayed', or 'early' limits, the history of maternal, paternal, and relative psychopathology were coded according to specific DSM-IV disorders (APA, 1994) listed a priori (e.g., mood disorder, schizophrenia). Other developmental variables identified include physical and sexual abuse, sexual abuse as either intrafamilial or extrafamilial and isolated or repeated, the youth's perception of attachment to his or her mother, father, and peers as either positive or negative, the youth's academic performance and status as either satisfactory and good or unsatisfactory and poor, and finally the nature of delinquency engaged in by the youth. The developmental life history variables are expected to be most useful in the investigation of the etiology of delinquency.

Once the coding protocol for the particular YAP data base was developed, it was piloted on approximately 10 files. In becoming more familiar with the content of the patient files, it was possible to exclude certain variables that would require high inferences to be made. For instance, although some files contained notes on parenting behaviours observed during family counselling sessions, highly subjective interpretations would be required in order to determine the type of parenting style. As a result, this variable was excluded from the investigation.

This pilot phase assisted the researchers in making an informed decision

as to which outcome variables should be scored dichotomously (e.g., has the youth run away from home: yes or no?), and which should be recorded categorically with multiple responses permitted (e.g., type of maternal, paternal, and other relative psychopathology included more than 10 possible categories). The decision to code a variable as either dichotomous or polychotomous was based on the extent of information and detail available in the patient files. Again, on the variables that would have been open to subjective evaluation and misclassification errors, the data was re-categorized into more global categories.

In order to ensure reliability of the coded data, interrater and intrarater reliabilities were estimated. Ten files were randomly selected by two researchers who independently read and coded them according to the developed protocol. The next day the researchers exchanged files and followed the same coding procedure. Upon completion of this process, the researchers compared their resulting coding profiles and the interrater reliability was computed at 90%. One week later, intrarater reliability was measured as each researcher selected another ten files, read and coded them. One week later, the same files were re-coded and compared. Intrarater reliability was also determined to be 90%. Since both inter- and intra-rater reliabilities are considered satisfactory, it is expected that relatively little room for error in patient record interpretations was made.

Archival data on 285 files were coded locally within the Foothills Hospital Health Records Department according to the revised protocol. Anonymity and confidentiality was maintained by recording the data by a hospital number code rather than by the patient's name. Information about the family was abstracted from the intake questionnaire, as well as from nurse and physician assessments and discharge summaries. Various documented narratives within the patient files were used to obtain the necessary information from all individuals who had interacted and worked with the young adults during their commitment to the YAP. These individuals included family, physicians, nurses, counsellors, and externally consulted professionals such as teachers and probation officers. In the case of patients who were admitted to the YAP more than once, data was collected from the youth's most recent hospital admission.

TABLE 2

## Primary Variables Under Investigation

A) Patient Demographics

Age  
Gender  
Race  
Socioeconomic Status  
    Mother's Occupation  
    Father's Occupation  
Family Household Composition  
Entry Method to YAP  
Number of Admissions to YAP  
Length of YAP Stay  
DSM-IV Discharge Diagnosis

B) Developmental Life History

Prenatal Problems  
Early Childhood Development Problems  
Physical Abuse  
Sexual Abuse  
Family History of Psychopathology  
    Maternal Psychopathology  
    Paternal Psychopathology  
    Other Family Psychopathology  
Perceived Nature of Attachments  
    Maternal-Child Relationship  
    Paternal-Child Relationship  
    Peer-Child Relationship  
School Performance  
Delinquent Behaviours

## CHAPTER IV RESULTS

The results are presented in three sections: (1) descriptive and chi-square results on demographic and developmental life history variables, (2) discriminant analyses between nondelinquent and delinquent youth, and between female and male delinquents, and (3) a factor analysis of the discriminating variables..

### Descriptive Analyses

Based on a total sample size of 285, roughly equal in gender distribution (54% female, n=155 and 46% male, n=130), comparisons between nondelinquents and delinquents, and females and males were made on several demographic variables. As already indicated in the previous chapter, 45.6% were nondelinquent, while 54.4% of the sample were delinquent.

Various demographic, developmental, family psychopathology, and attachment variables were compared between nondelinquent and delinquent, female and male youth. The results of chi-square tests and comparisons on each of these variables can be found in Tables 3, 4, 5, 6, 7, 8, 10, 11, and 13. Even though some of the comparisons between females and males, and nondelinquents and delinquents were not statistically different, many of the more interesting results from the analyses will be reported nonetheless.

### Gender and Race

Comparisons between nondelinquent and delinquent youth, and females and males on the variables of gender and race revealed no statistical differences. As shown in Tables 3 and 4, the sample of the present study comprised 54.2% and 45.8% of female and male adolescent nondelinquents respectively, and 54.6% and 45.4% of female and male delinquents respectively (Chi-square=.01, df=1, p=.94). In addition, over 85% of nondelinquents and delinquents described themselves as caucasian (Chi-square=.07, df=1, p=.78), as did both female and male adolescents (Chi-square=.38, df=1, p=.54), with the remaining 15% comprising the noncaucasian category.

### Household Composition

Although no significant differences were found among nondelinquent and delinquent youth on the variable of household composition, it is interesting to note the resulting distributions from the analysis. Comparisons

on the household composition variable reveal a rather large range of values (Chi-square=10.9, df=6, p=.09). While the majority of both nondelinquents and delinquents reported living with their biological parents (41.2% and 31% respectively), some indicated that they lived with friends (1.3% for nondelinquents and 3.9% for delinquents) or on the streets (2% for nondelinquents and 2.3% for delinquents). The frequencies reveal that the second largest category of household composition for nondelinquents is the sole mother (21.6%) followed by the step-blended family (19.6%), while for delinquents it is the adoptive and foster home (23.3%) and step-blended family (18.6%).

Statistical differences were not found in the comparison of females and males with regard to the type of household composition (Chi-square=5.87, df=6, p=.44). However, similar to the nondelinquent and delinquent comparisons, a large percentage of females (39.5%) and males (33.1%) also reported living with their biological parents or in adoptive and foster homes (17.8% of females and 15.4% of males). Moreover, 25.4% of male youth and 14.5% of female youth described their households as sole mother households.

#### Socioeconomic Status

Socioeconomic comparisons based on maternal and paternal occupation between youth indicate that 40.5% of nondelinquents' mothers and 36.7% of delinquents' mothers comprise the unskilled labour sector (Chi-square=1.57, df=4, p=.81), whereas 45% of nondelinquents and 44.7% of delinquents have fathers coming from professional occupations (Chi-square=3.83, df=4, p=.43). Of mothers who are unemployed, 7.9% are found in the nondelinquent group and 7.3% come from the delinquent group. Similarly, 10.1% include unemployed fathers of nondelinquent youth and 8.5% are unemployed fathers of delinquent youth.

Statistically nonsignificant results emerged from the comparisons specific to gender and socioeconomic status. While 9.6% of female and 5.5% of male youth indicated that their mothers were unemployed (Chi-square=3.46, df=4, p=.48), 7.1% of adolescent females and 12.1% of adolescent males reported having unemployed fathers (Chi-square=3.96, df=4, p=.41). Interestingly, 3.2% of females and 1.8% of males described their mothers as entrepreneurs, whereas 8.9% of females and 6.6% of males have entrepreneurial fathers.

### Prenatal and Early Childhood Developmental Experiences

Tables 5 and 6 present the findings on developmental experiences of youth in the present study's sample. Although comparisons on prenatal experiences between females and males did not reach statistical significance (Chi-square=3.78, df=3, p=.29), statistical differences between nondelinquent and delinquent youth did emerge (Chi-square=19.4, df=3, p<.01). More delinquent youth experienced prenatal complications (29.3%) than did nondelinquent youth (12.8%), with 22% of delinquents experiencing perinatal distress such as breech birth presentation, forceps delivery, and syndromes related to mothers' substance addictions.

In terms of early childhood experiences, although more nondelinquents experienced medical problems than delinquents, delinquent youth reached their developmental milestones both earlier and later than nondelinquent youth (Chi-square=8.56, df=3, p<.04). Moreover, of those who attained their milestones in advance, 6.1% were female and a little less than 1% were male (Chi-square=4.73, df=3, p=.19).

### Experiences of Abuse

Comparisons on experiences of physical abuse indicate that more delinquents were physically abused than nondelinquents (Chi-square=8.24, df=1, p<.01). Approximately one third (33.5%) of nondelinquent adolescents and half (50.4%) of delinquent adolescents reported instances of physical abuse. Of those abused, 40.3% were female and 42.3% were male (Chi-square=.12, df=1, p=.73).

Similarly, more delinquents reported being sexually abused than nondelinquents (Chi-square=22.6, df=9, p<.01), with more of those abused being female (Chi-square=19.6, df=9, p<.02). More specifically, the results reveal that while the majority of females are sexually abused by extrafamilial people on isolated rather than repeated instances (13%), males experience both repeated intrafamilial and extrafamilial abuse to the same extent (5.4%). Nondelinquent youth, on the other hand, reported more repeated acts of intrafamilial sexual abuse (9%), in comparison to delinquents who reported more isolated acts of extrafamilial sexual abuse (12.4%).

### History of Family Psychopathology

Tables 7 and 8 summarize the results for the differences between nondelinquent and delinquent, and female and male groups respectively, with

regard to differences in family member psychopathology. Over 86% of both nondelinquent and delinquent youth reported some form of psychopathology in their family backgrounds (Chi-square=.13, df=1, p=.72), and 89% of female and 84.9% of male adolescents indicated the presence of family psychopathy (Chi-square=.98, df=1, p=.32). More specifically, although more than 65% of both nondelinquent and delinquent youth reported the existence of maternal psychopathology (Chi-square=.40, df=1, p=.53), more females (73.5%) than males (61.5%) had mothers who were psychopathic (Chi-square=4.69, df=1,  $p<.03$ ). On the other hand, 60.6% of nondelinquents and 72.3% of delinquents reported some form of paternal psychopathology (Chi-square=4.28, df=1,  $p<.04$ ), with no statistical differences resulting from the gender comparison (Chi-square=1.73, df=1, p=.19). Finally, over 70% of both nondelinquent and delinquent (Chi-square=1.58, df=1, p=.21), and female and male adolescents (Chi-square=.47, df=1, p=.49) indicated that they had at least one relative who experienced a pathology.

As indicated in Table 9, approximately 87% of youth in the present investigation reported the existence of some type of psychopathology in their family. In fact, in listing the type of family psychopathology experienced, 26% comprised maternal psychopathologies, 22% were paternal, and over half (52%) were from other family relatives. Specifically, substance abuse, attention deficit, aggression and depression disorders made up almost three quarters of the pathologies reported by the youth in the sample. Anxiety disorders, eating disorders, and learning disabilities comprised a total of only 3% of the pathologies exhibited by mothers, fathers, and other relatives of the adolescents.

#### Attachment to Significant Others

Comparisons of attachment strength as perceived by the youth between themselves and their mothers, fathers, and peers are presented in Tables 10 and 11. Differences were found in maternal attachment (Chi-square=3.91, df=1,  $p<.05$ ), with more nondelinquents (57.8%) reporting positive and strong attachments than delinquents (45.3%). Nonetheless, no gender differences were found on the variable of maternal attachment (Chi-square=.11, df=1, p=.73), as approximately half of both female and male youth reported being either strongly or weakly attached to their mothers. With regard to youth attachment to fathers, statistical significance was not reached on comparisons

between nondelinquents and delinquents (Chi-square=.77, df=1, p=.38), or between female and male youth (Chi-square=.24, df=1, p=.62). Similarly, the results reveal no differences in perceived strength of attachment to peers between nondelinquents and delinquents (Chi-square=.03, df=1, p=.86), or between females and males (Chi-square=.05, df=1, p=.82).

#### School Performance

Comparisons between female and male adolescents based on school performance were not found to be statistically significant (Chi-square=.20, df=1, p=.66), since approximately 76% of both boys and girls rated their academic performance and pursuits to be poor or unsatisfactory. School performance differences emerged, however, between nondelinquent and delinquent groups, as more delinquent youth performed poorly at school than nondelinquent youth (Chi-square=20.2, df=1, p<.01).

#### Acts of Delinquency

Finally, Table 12 presents the results of 19 different types of delinquent behaviours as reported by the female and male youth in the hospital program. The results indicate that 57% of the delinquent acts were engaged in by females, while 43% were performed by males. Although the five most frequently recorded delinquent behaviours in the youth files include truancy, substance abuse, self-mutilation, sexual activity, and running away from home, adolescent females and males engaged in these acts at different rates. For instance, 9% of females abused substances, and 8% were truant, whereas 6% of males were truant and 10% abused substances and self-mutilated. As shown in Table 13, only two of these top five delinquent behaviours were statistically different. Accordingly, females in this sample were more sexually active (Chi-square=4.40, df=1, p<.04), and abused more substances than males (Chi-square=4.64, df=1, p<.03).

In contrast to these more 'status type offenses', the most frequently engaged in forms of criminal acts by females were the use of street drugs such as cocaine and marijuana (5%), break and enters (4%), physical assaults against persons (2%), and drug trafficking (2%). Male delinquents on the other hand, engaged in break and enters (4%), sexual demeanours such as flashing or inappropriately touching other youth (3%), street drug crimes (2%), physical assaults against persons (2%), and shoplifting (2%). Interestingly, there were half as many female firesetters as male firesetters

in the present sample, and double the number of females who violated traffic laws than males.

### Discriminant Analyses

#### Delinquent and Nondelinquent Youth

A stepwise backward discriminant analysis was performed on the groups defined as delinquent and nondelinquent. Because complete data are required on each variable, only 124 subjects were used in these analyses involving 12 discriminating variables. Table 14 shows the stepwise discriminant function for the combination of variables for the whole group. Although theoretically determined, those with missing values on important predictor variables were excluded from the discriminant analysis. Several discriminant analyses were performed before the final one was accepted. A single discriminant function was formed from the twelve variables and was found to separate the delinquent group from the nondelinquent group (Wilks' Lambda=.63, df=6,  $p<.01$ ).

Compared to the nondelinquent group, more of the delinquent adolescents received a conduct disorder diagnosis, experienced prenatal complications, performed poorly in school, had mothers who experienced a greater number of psychopathologies, were physically abused, and had negative or weak attachments to their fathers.

Based on the discriminant analysis and resulting model, adolescents can be correctly classified as either delinquent or nondelinquent approximately 78% of the time. More specifically, one would be correct in predicting delinquency 84% of the time, and nondelinquency 68% of the time.

#### Female and Male Delinquent Youth

As summarized in Tables 15, a stepwise discriminant function for the combination of variables for female youth was performed. The results indicate that female delinquents received more conduct disorder diagnoses, were physically abused to a larger extent, experienced more prenatal complications, defined their household composition as more distanced from the 'traditional' family of biological parents, experienced fewer early childhood problems, were not as attached to their peers, experienced more sexual abuse, and performed more poorly at school (Wilks' Lambda=.48, df=8,  $p<.01$ ).

According to the resulting discriminant function, approximately 82% of the cases can be correctly classified into nondelinquent and delinquent groups. While female delinquents can be correctly classified with 84%

accuracy, nondelinquent females can be correctly labelled 81% of the time.

Table 16 summarizes the stepwise discriminant function of the variables for the male sample. Delinquent males in the present study were given more conduct disorder diagnoses, performed more poorly at school, were more negatively attached to their fathers, experienced more prenatal complications, and were more attached to their peers (Wilks' Lambda=.58,  $df=5$ ,  $p<.01$ ).

With 87% accuracy in labelling males delinquent and 76% accuracy in labelling them as nondelinquent, the resulting discriminant analysis on the male youth in the YAP correctly classifies cases at an 82% efficacy rate.

#### Factor Analysis

A factor analysis was performed on the variables entered in the discriminant analysis, so as to explore the data further. These variables include: household composition, physical abuse, sexual abuse, prenatal problems, early childhood developmental problems, family psychopathology, maternal psychopathology, paternal psychopathology, paternal attachment, peer attachment, diagnosis, and school performance.

Table 17 shows the correlation matrix for the scores from each group which were factor analyzed, while Table 18 contains the rotated factor matrix. Using a principal component extraction and an orthogonal varimax rotation, five underlying factors were identified. Two empirical rules guided the number of factors to be extracted: 1) eigenvalues greater than 1 (refer to Table 18), and (2) percentage of variance accounted for greater than 50%. Taken together, the factors of Family Pathology (Factor 1), Developmental Problems (Factor 2), Abuse History (Factor 3), Maladaptive Behaviours (Factor 4), and Socialization Influences (Factor 5), were able to account for 60% of the variance in the data.

The variables of maternal psychopathology, paternal psychopathology, and family psychopathology loaded (.79, .76, and .56 respectively) on the Pathology factor, while early childhood problems and prenatal problems loaded (.69, and .49 respectively) on the second factor of Developmental Problems. Factor three designated as Abuse History, was loaded highly on by variables of physical abuse (.77) and sexual abuse (.62), whereas psychiatric diagnosis and paternal attachment variables loaded (.71 and .55 respectively) on the construct of Maladaptive Behaviours. Finally, school performance (.88), family household (.21), and peer attachment (-.12) loaded on the fifth factor

of Socialization Influences. Based on these results, then, it is clear that there are five cohesive and theoretically meaningful factors in the data set. Moreover, since these factors were maintained in an orthogonal configuration, they are clearly uncorrelated and thus independent. It is evident, therefore, that the life history and psychological variables manifest themselves from five underlying factors.

Based on the presentation of the three sections of descriptive and chi-square results, discriminant analyses, and the factor analysis, the following chapter will elaborate on and discuss these results in relation to the delinquency literature.

TABLE 3  
Demographic Differences Between  
Nondelinquent and Delinquent Youth in the Young Adult Program  
(N=285)

VARIABLE	Non-Delinquent		Delinquent		Chi-square	DF	P
<hr/>							
<b>GENDER</b>					.01	1	.94
Female	(84)	54.2%	(71)	54.6%			
Male	(71)	45.8%	(59)	45.4%			
<b>RACE</b>					.07	1	.78
Caucasian	(133)	85.8%	(113)	86.9%			
Noncaucasian	(22)	14.2%	(17)	13.1%			
<b>HOUSEHOLD COMPOSITION</b>					10.9	6	.09
Biological	(63)	41.2%	(40)	31%			
Step/Blended	(30)	19.6%	(24)	18.6%			
Adoptive	(17)	11.1%	(30)	23.3%			
Sole Mother	(33)	21.6%	(22)	17.1%			
Sole Father	(5)	3.3%	(5)	3.9%			
Friends	(2)	1.3%	(5)	3.9%			
Street	(3)	2.0%	(3)	2.3%			
<b>MOTHER'S OCCUPATION</b>					1.57	4	.81
Entrepreneur	(2)	1.6%	(4)	3.7%			
Professional	(38)	30.2%	(37)	33.9%			
Skilled Labour	(25)	19.8%	(20)	18.3%			
Unskilled Labour	(51)	40.5%	(40)	36.7%			
Unemployed	(10)	7.9%	(8)	7.3%			
<b>FATHER'S OCCUPATION</b>					3.83	4	.43
Entrepreneur	(5)	4.6%	(11)	11.7%			
Professional	(49)	45.0%	(42)	44.7%			
Skilled Labour	(42)	38.5%	(31)	33.0%			
Unskilled Labour	(2)	1.8%	(2)	2.1%			
Unemployed	(11)	10.1%	(8)	8.5%			

TABLE 4  
Demographic Differences Between  
Female and Male Youth in the Young Adult Program  
(N=285)

VARIABLE	Female	Male	Chi- square	DF	P
<hr style="border-top: 1px dashed black;"/>					
<b>RACE</b>			.38	1	.54
Caucasian	(132) 85.2%	(114) 87.7%			
Noncaucasian	(23) 14.8%	(16) 12.3%			
 <b>HOUSEHOLD COMPOSITION</b>			 5.87	 6	 .44
Biological	(60) 39.5%	(43) 33.1%			
Step/Blended	(29) 19.1%	(25) 19.2%			
Adoptive	(27) 17.8%	(20) 15.4%			
Sole Mother	(22) 14.5%	(33) 25.4%			
Sole Father	(6) 3.9%	(4) 3.1%			
Friends	(4) 2.6%	(3) 2.3%			
Street	(4) 2.6%	(2) 1.5%			
 <b>MOTHER'S OCCUPATION</b>			 3.46	 4	 .48
Entrepreneur	(4) 3.2%	(2) 1.8%			
Professional	(42) 33.6%	(33) 30.0%			
Skilled Labour	(20) 16.0%	(25) 22.7%			
Unskilled Labour	(47) 37.6%	(44) 40.0%			
Unemployed	(12) 9.6%	(6) 5.5%			
 <b>FATHER'S OCCUPATION</b>			 3.96	 4	 .41
Entrepreneur	(10) 8.9%	(6) 6.6%			
Professional	(49) 43.8%	(42) 46.2%			
Skilled Labour	(44) 39.3%	(29) 31.9%			
Unskilled Labour	(1) 0.9%	(3) 3.3%			
Unemployed	(8) 7.1%	(11) 12.1%			

TABLE 5  
 Developmental Problems as Differentially Experienced  
 by Nondelinquent and Delinquent Youth in the Young Adult Program  
 (N=285)

VARIABLE	Non- Delinquent	Delinquent	Chi- square	DF	P
<hr/>					
<b>PRENATAL</b>			19.4	3	.00
Normal	(116) 87.2%	(58) 70.7%			
Premature	(3) 2.3%	(6) 7.3%			
Perinatal Distress	(14) 10.5%	(9) 11.0%			
Fetal Alcohol Syndrome	-----	(9) 11.0%			
<b>EARLY CHILDHOOD</b>			8.56	3	.04
Normal	(98) 72.1%	(56) 61.5%			
Early	(4) 2.9%	(4) 4.4%			
Delayed	(18) 13.2%	(25) 27.5%			
Medical Problems	(16) 11.8%	(6) 6.6%			
<b>PHYSICAL ABUSE</b>			8.24	1	.00
No	(103) 66.5%	(64) 49.6%			
Yes	(52) 33.5%	(65) 50.4%			
<b>SEXUAL ABUSE</b>			22.6	9	.00
None	(102) 65.8%	(74) 57.4%			
Intrafamilial	(7) 4.5%	(3) 2.3%			
Extrafamilial	(3) 1.9%	(8) 6.2%			
Intra-isolated	(1) .6%	(4) 3.1%			
Intra-repeated	(14) 9.0%	(2) 1.6%			
Force	(4) 2.6%	(1) .8%			
Extra-isolated	(8) 5.2%	(16) 12.4%			
Extra-repeated	(7) 4.5%	(11) 8.5%			
Both-isolated	(1) .6%	(2) 1.6%			
Both-repeated	(8) 5.2%	(8) 6.2%			

TABLE 6  
 Developmental Problems as Differentially Experienced  
 by Female and Male Youth in the Young Adult Program  
 (N=285)

VARIABLE	Female	Male	Chi-square	DF	P
<hr/>					
PRENATAL			3.78	3	.29
Normal	(87) 79.8%	(87) 82.1%			
Premature	(3) 2.8%	(6) 5.7%			
Perinatal Distress	(12) 11.0%	(11) 10.4%			
Fetal Alcohol Syndrome	(7) 6.4%	(2) 1.9%			
EARLY CHILDHOOD			4.73	3	.19
Normal	(76) 66.7%	(78) 69.0%			
Early	(7) 6.1%	(1) 0.9%			
Delayed	(20) 17.5%	(23) 20.4%			
Medical Problems	(11) 9.6%	(11) 9.7%			
PHYSICAL ABUSE			.12	1	.73
No	(92) 59.7%	(75) 57.7%			
Yes	(62) 40.3%	(55) 42.3%			
SEXUAL ABUSE			19.6	9	.02
None	(87) 56.5%	(89) 68.5%			
Intrafamilial	(3) 1.9%	(7) 5.4%			
Extrafamilial	(4) 2.6%	(7) 5.4%			
Intra-isolated	(2) 1.3%	(3) 2.3%			
Intra-repeated	(11) 7.1%	(5) 3.8%			
Force	(4) 2.6%	(1) .8%			
Extra-isolated	(20) 13.0%	(4) 3.1%			
Extra-repeated	(13) 8.4%	(5) 3.8%			
Both-isolated	(1) .6%	(2) 1.5%			
Both-repeated	(9) 5.8%	(7) 5.4%			

TABLE 7  
Differences in Family Member Psychopathology  
For Nondelinquent and Delinquent Youth in the Young Adult Program  
(N=285)

VARIABLE	Non- Delinquent		Delinquent		Chi- square	DF	P
<hr/>							
<b>FAMILY</b>							
<b>PSYCHOPATHOLOGY</b>					.13	1	.72
No	(19)	13.6%	(15)	12.1%			
Yes	(121)	86.4%	(109)	87.9%			
<b>MATERNAL</b>							
<b>PSYCHOPATHOLOGY</b>					.40	1	.53
No	(47)	30.3%	(44)	33.8%			
Yes	(108)	69.7%	(86)	66.2%			
<b>PATERNAL</b>							
<b>PSYCHOPATHOLOGY</b>					4.28	1	.04
No	(61)	39.4%	(36)	27.7%			
Yes	(94)	60.6%	(94)	72.3%			
<b>OTHER RELATIVE</b>							
<b>PSYCHOPATHOLOGY</b>					1.58	1	.21
No	(33)	21.3%	(36)	27.7%			
Yes	(122)	78.7%	(94)	72.3%			

TABLE 8  
 Differences in Family Member Psychopathology  
 For Female and Male Youth in the Young Adult Program  
 (N=285)

VARIABLE	Female	Male	Chi-square	DF	P
-----					
FAMILY PSYCHOPATHOLOGY			.98	1	.32
No	(16) 11.0%	(18) 15.1%			
Yes	(129) 89.0%	(101) 84.9%			
MATERNAL PSYCHOPATHOLOGY			4.69	1	.03
No	(41) 26.5%	(50) 38.5%			
Yes	(114) 73.5%	(80) 61.5%			
PATERNAL PSYCHOPATHOLOGY			1.73	1	.19
No	(58) 37.4%	(39) 30%			
Yes	(97) 62.6%	(91) 70%			
OTHER RELATIVE PSYCHOPATHOLOGY			.47	1	.49
No	(40) 25.8%	(29) 22.3%			
Yes	(115) 74.2%	(101) 77.7%			

TABLE 9  
Type of Family Psychopathology  
of Youth in Young Adult Program

Pathology	n	%	
No	34	13	
Yes	230	87	
Total	264	100	

  

Pathology Indicated	Maternal n (%)	Paternal n (%)	Other* n (%)	Total n (%)
Substance Abuse	46 (6%)	80(10%)	46 (6%)	172 (20%)
Attention Deficit	1 (.1%)	2 (.2%)	161(19%)	164 (20%)
Aggression	6 (1%)	25 (3%)	127(15%)	158 (19%)
Depression	65 (8%)	25 (3%)	36 (4%)	126 (15%)
Suicide	15 (2%)	11 (1%)	23 (3%)	49 (6%)
Physically Abused	31 (4%)	3 (.4%)	4 (.4%)	38 (4%)
Legal Involvement	5 (1%)	20 (2%)	8 (1%)	33 (4%)
Sexually Abused	20 (2%)	2 (.2%)	9 (1%)	31 (4%)
Physical Illness	11 (1%)	9 (1%)	3 (.3%)	23 (3%)
Schizophrenia	3 (.3%)	3 (.3%)	10 (1%)	16 (2%)
Anxiety	3 (.3%)	3 (.3%)	3 (.3%)	9 (1%)
Eating Disorder	5 (.6%)	0 (0%)	3 (.3%)	8 (1%)
Learning Disabled	2 (.2%)	2 (.2%)	2 (.2%)	6 (1%)
Total	213 (26%)	185 (22%)	435 (52%)	833 (100%)

\* The category 'Other' refers to family members other than parents; e.g., siblings, grandparents, aunts, uncles, or cousins.

TABLE 10  
Differences in Nondelinquent and Delinquent Youths'  
Strength of Attachment  
(N=285)

VARIABLE	Non-Delinquent		Delinquent		Chi-square	DF	P
-----							
MATERNAL ATTACHMENT					3.91	1	.05
Negative/weak	(57)	42.2%	(64)	54.7%			
Positive/strong	(78)	57.8%	(53)	45.3%			
PATERNAL ATTACHMENT					.77	1	.38
Negative/weak	(69)	58.5%	(52)	52.5%			
Positive/strong	(49)	41.5%	(47)	47.5%			
PEER ATTACHMENT					.03	1	.86
Negative/weak	(33)	26.6%	(31)	25.6%			
Positive/strong	(91)	73.4%	(90)	74.4%			
SCHOOL PERFORMANCE					20.2	1	.00
Poor	(99)	66.0%	(113)	89.0%			
Good	(51)	34.0%	(14)	11.0%			

TABLE 11  
Differences in Female and Male Youths'  
Strength of Attachment  
(N=285)

VARIABLE	Female	Male	Chi-square	DF	P
<hr/>					
<b>MATERNAL ATTACHMENT</b>			.11	1	.73
Negative/weak	(63) 47.0%	(58) 49.2%			
Positive/strong	(71) 53.0%	(60) 50.8%			
 <b>PATERNAL ATTACHMENT</b>			.24	1	.62
Negative/weak	(64) 54.2%	(57) 57.6%			
Positive/strong	(54) 45.8%	(42) 42.4%			
 <b>PEER ATTACHMENT</b>			.05	1	.82
Negative/weak	(35) 26.7%	(29) 25.4%			
Positive/strong	(96) 73.3%	(85) 74.6%			
 <b>SCHOOL PERFORMANCE</b>			.20	1	.66
Poor	(114) 75.5%	(98) 77.8%			
Good	(37) 24.5%	(28) 22.2%			

TABLE 12  
Prevalency of Delinquency and Types of Delinquent Behaviour  
of Youth in Young Adult Program

Delinquency	n	%
Yes	155	54.4
No	130	45.6
Total	285	100

  

Delinquent Behaviour	Female	Male	Total
Truancy	67 (8%)	53 (6%)	120(14%)
Substance Abuse	74 (9%)	46 (5%)	120(14%)
Self-Mutilation	56 (6%)	45 (5%)	101(12%)
Sexually Active	57 (6%)	33 (4%)	90 (11%)
Runaway	53 (6%)	35 (4%)	88 (10%)
Break & Enter	33 (4%)	32 (4%)	65 (8%)
Street Drugs	44 (5%)	12 (2%)	56 (7%)
Sexual Demeanours	10 (1%)	25 (3%)	35 (4%)
Assault	14 (2%)	17 (2%)	31 (4%)
Shoplifting	12 (1%)	17 (2%)	29 (3%)
Drug Trafficking	13 (2%)	8 (1%)	21 (2%)
Pervasive Lying	13 (1%)	4 (.5%)	17 (2%)
Vandalism	7 (1%)	10 (1%)	17 (2%)
Fire Setting	5 (1%)	10 (1%)	15 (2%)
Prostitution	9 (1%)	5 (.6%)	14 (2%)
Sex Perpetrator	4 (.4%)	7 (1%)	11 (1%)
Forgery/Fraud	6 (1%)	4 (.5%)	10 (1%)
Traffic Violations	6 (1%)	3 (.3%)	9 (1%)
Inebriation	2 (.2%)	1 (.1%)	3 (.4%)
<b>TOTAL</b>	<b>485 (57%)</b>	<b>367 (43%)</b>	<b>852 (100%)</b>

TABLE 13  
Behavioral Differences in Female and Male Youth  
in the Young Adult Program  
(N=285)

VARIABLE	Female		Male		Chi-square	DF	P
TRUANT					.22	1	.64
No	(87)	56.5%	(77)	59.2%			
Yes	(67)	43.5%	(53)	40.8%			
SUBSTANCE ABUSE					4.64	1	.03
No	(80)	51.9%	(84)	64.6%			
Yes	(74)	48.1%	(46)	35.4%			
SELF-MUTILATION					.09	1	.76
No	(98)	63.6%	(85)	65.4%			
Yes	(56)	36.4%	(45)	34.6%			
SEXUALLY ACTIVE					4.40	1	.04
No	(97)	63.0%	(97)	74.6%			
Yes	(57)	37.0%	(33)	25.4%			
RUNAWAY					1.85	1	.17
No	(101)	65.6%	(95)	73.1%			
Yes	(53)	34.4%	(35)	26.9%			

TABLE 14  
Stepwise Discriminant Analysis  
for the Whole Sample in the Young Adult Program  
(N=285)

Variables	Correlation with the Discriminant Function
Diagnosis	.88
Prenatal Problems	.40
School Performance	.40
Physical Abuse	.33
Maternal Psychopathology	.32
Paternal Attachment	-.21

Canonical Discriminant Function

Eigenvalue	Canonical Correlation	Wilks' Lambda	Chi-square	DF	Significance
.5897	.6091	.6290	55.163	6	<.001

Classification Results

Membership Actual Group	No. of Cases	Predicted Group	
		Delinquent	Nondelinquent
Delinquent	96	81 84.4%	15 15.6%
Nondelinquent	62	20 32.3%	42 67.7%

Percent of cases correctly classified:           77.85%

TABLE 15  
Stepwise Discriminant Analysis  
for the Female Sample in the Young Adult Program  
(N=155)

Variables	Correlation with the Discriminant Function
Diagnosis	.85
Physical Abuse	.43
Prenatal Problems	.43
Family Household Composition	.39
Early Childhood Problems	-.33
Peer Attachment	-.31
Sexual Abuse	.28
School Performance	.22

Canonical Discriminant Function

Eigenvalue	Canonical Correlation	Wilks' Lambda	Chi-square	DF	Significance
1.0662	.7183	.4840	41.366	8	<.001

Classification Results

Membership Actual Group	No. of Cases	Predicted Group	
		Delinquent	Nondelinquent
Delinquent	49	41 83.7%	8 16.3%
Nondelinquent	36	7 19.4%	29 80.6%

Percent of cases correctly classified:                      82.35%

TABLE 16  
Stepwise Discriminant Analysis  
for the Male Sample in the Young Adult Program  
(N=130)

Variables	Correlation with the Discriminant Function
Diagnosis	.91
School Performance	.63
Paternal Attachment	-.60
Prenatal Problems	.27
Peer Attachment	.24

Canonical Discriminant Function

Eigenvalue	Canonical Correlation	Wilks' Lambda	Chi-square	DF	Significance
.7148	.6456	.5832	30.470	5	<.001

Classification Results

Membership Actual Group	No. of Cases	Predicted Group	
		Delinquent	Nondelinquent
Delinquent	39	34 87.2%	5 12.8%
Nondelinquent	29	7 24.1%	22 75.9%

Percent of cases correctly classified:           82.35%

TABLE 17  
Pearson Product-Moment Correlations Coefficients  
(N=285)

House hold	Pre-natal	Sex. Ab.	Mat. Path.	Pat. Att.	Schl Perf.	Fam Path.	Child Prob	Pat. Path.	Phys Ab.	Peer Att.	Diagnosis	
Household	1.00	-.11	.15	.15	.07	.10	.07	-.09	.08	.07	-.10	-.02
Prenatal		1.00	.07	.05	-.06	.12	-.02	.12	.08	.05	.10	-.02
Sexual Abuse			1.00	.09	.12	.12	.06	-.09	.10	.31	-.05	-.04
Maternal Pathology				1.00	-.02	.12	.27	.04	.57	.01	-.12	-.10
Paternal Attachment					1.00	.03	.02	-.09	.00	.18	.02	.03
School Performance						1.00	-.05	.13	.12	.03	-.09	-.05
Family Pathology							1.00	.11	.25	-.04	-.01	-.01
Childhood Problems								1.00	.10	-.12	.10	.03
Paternal Pathology									1.00	.03	.07	-.11
Physical Abuse										1.00	-.02	.03
Peer Attachment											1.00	.01
Diagnosis												1.00

TABLE 18  
 Factor Matrix Orthogonally Rotated  
 to the Normalized Varimax Criterion  
 (N=285)

Variable	(1) Family Pathology	(2) Developmental Problems	Factor (3) Abuse History	(4) Maladaptive Behaviours	(5) Socialization Influences
Household	.47	-.38	.24	.28	.21
Prenat Prb	.02	.49	.48	-.43	.09
Sex Abuse	.29	-.09	.62	-.00	.15
Mat. Path.	.79	-.06	.01	-.19	.10
Pat. Att.	-.22	.02	.18	.55	.37
School	.10	.03	.00	-.03	.88
Fam Path.	.56	.24	-.17	.27	-.31
Chldhd Prb	.20	.69	-.13	.14	.23
Pat. Path.	.76	.17	.13	-.07	.04
Phys Abuse	-.12	-.05	.77	.19	-.10
Peer Att.	-.02	.70	.00	.04	-.12
Diagnosis	.02	.09	.05	.71	-.12
Eigen- values	2.06	1.55	1.32	1.22	1.05
% of Variance	17.1	12.9	11.0	10.2	8.7
Total Variance:	60%				

## CHAPTER V DISCUSSION

The major findings of the present study may be summarized in four main points. Firstly, compared to nondelinquents, more delinquent adolescents experienced prenatal problems, were proportionally advanced or delayed in reaching their developmental milestones, reported histories of physical as well as sexual abuse, described their attachments to their mothers more negatively, reported more instances of paternal psychopathology, and performed more poorly in school.

Secondly, gender differences in delinquency rates and correlates showed that more females than males abused substances, were sexually active, reported maternal psychopathology, and experienced sexual abuse (more isolated acts of extrafamilial sexual abuse).

Thirdly, stepwise backward discriminant analyses were performed on the whole sample of youth, the female group, and the male group of nondelinquent and delinquent youth. For the group as a whole, six variables clearly differentiated between the nondelinquent and delinquent groups (78% correct classification). More of the delinquent than nondelinquent adolescents were diagnosed as conduct disorder, more described their mothers as having some type of psychopathology, more experienced prenatal complications, more reported instances of physical abuse, more were negatively and weakly attached to their fathers, and more performed poorly at school.

Stepwise discriminant analyses also successfully differentiated between female and male nondelinquents and delinquents. While for the female group eight factors differentiated between nondelinquents and delinquents (82% correct classification), for the male group, five factors differentiated between nondelinquents and delinquents (82% correct classification). In contrast to female nondelinquents, female delinquents received more conduct disorder diagnoses, experienced more prenatal complications, defined their household composition as more distanced from the 'traditional' family of biological parents and siblings, reported more instances of physical and sexual abuse in their histories, were more negatively attached to their peers, and performed more poorly at school. Compared to male nondelinquents, male delinquents were

diagnosed more often as conduct disorder, experienced more prenatal problems, were more negatively attached to their fathers and more positively attached to their peers, and performed more poorly at school.

Fourthly, a factor analysis of the discriminating variables identified five underlying factors of delinquent behaviour; Family Pathology, Developmental Problems, Abuse History, Maladaptive Behaviours, and Socialization Influences. The aim of this chapter is to interpret these findings within the context of the developmental and delinquency research.

#### A Response to the Research Questions

Because the present investigation was aimed at answering three primary research questions, the following section will address each of them in relation to the relevant theories and the results obtained.

#### Similarities and Differences Between Nondelinquents and Delinquents

While differences reveal the key risk factors differentiating between nondelinquent and delinquent youth, much can also be learned about adolescents by looking at what the youth in the sample had in common.

The link between low social status and crime remains a matter of controversy in the delinquency literature. In the present study, no differences in socioeconomic status were found between nondelinquent and delinquent youth. More specifically, the majority of adolescents reported that their mothers comprised the unskilled labour force, while fathers were involved in professional occupations. Rutter and Giller (1984) concluded that "in all probability a true association exists, but it is of moderate strength only and it is likely that, to a large extent, it is a consequence of the problems that may accompany low status, rather than low social status per se" (p.162). While this may be a possible explanation, from the present study's results one can conclude that the status of the mothers in the youths' lives accurately reflect the present status of many women in our society. Although there is a growing number of educated women reaching more diverse skilled labour and professional ranks, many still remain in the 'unskilled' labour sector, regardless of their potential.

Related to socioeconomic status, is the composition of one's household. For instance, in comparison to two married and employed parents, a divorced woman raising her child typically lives in impoverished conditions, as her sole earnings are often insufficient to sustain her previous household, thereby

resulting in drastic lifestyle changes for both herself and her child(ren). In addition to economic complications, however, parents living in "nontraditional" households may face public scrutiny and intrafamilial conflict. According to Ensminger et al. (1983) and Rodman and Grams (1970), the belief that "broken" homes are more likely to cause delinquency than "intact" homes is both entrenched and equivocal. Chi-square analyses involving household composition in the present study, revealed that the majority of both nondelinquent and delinquent youth lived with their biological parents. Of those remaining, many described their households as "reconstituted" (i.e., step or blended) or "broken" (i.e., sole mother or father) homes. As a result of the female group stepwise backward discriminant analysis, it was found that a distancing from the "traditional" family of biological parents and siblings represented the type of household composition for more female delinquents than nondelinquents.

The coming together of new members can often be as stressful as the dissolution of a family. In both cases, new rules must be established and responsibilities re-allocated if the household is to operate favourably. The integration of step-parents and step-children frequently creates chaos and competition for adult affections, and when stepchildren fail to meet the new demands and high expectations set for them by stepparents, relationships can become strained by feelings of rejection, jealousy, and anger (Morgan, 1985). Although the present investigation does not support Dornbusch, Carlsmith, Bushwall, Ritter, Leiderman, Hastorf, and Gross's (1985) contention that "something about the internal processes of step-parent families has a stronger negative impact on male adolescents than on female adolescents" (p.333), before disqualifying this conclusion, more refined measurements and analyses of the family structure variables are required.

Developmental psychologists have outlined several stages and tasks that suggest developmental maturation throughout the human lifespan. For instance, the average child stands alone at about 11 months, and walks when led by one hand at 1 year, just as between 2 and 2.5 years a child can converse in simple sentences (Mussen et al., 1990). A child who falls within these age guidelines is considered to be developing at a normal rate, while one who reaches these milestones considerably earlier or later than the stipulated ages is considered to be either developmentally advanced or delayed.

However, because development begins from the moment of conception, there are many variations and pressures even in the prenatal environment that may impact a fetus and alter its developmental progression.

In the present investigation prenatal experiences were explored, and the results indicate that more delinquent youth experienced problems prior to and during their birth. From this finding then, the result follows that more nondelinquents than delinquents reached their developmental milestones at a normal rate. Interestingly, however, delinquent adolescents reached their milestones (such as walking, talking, and being toilet trained) either earlier or later than what is developmentally expected. One possible explanation for this may be that while some of the youth experiencing prenatal complications remained traumatized from birth and subsequently developed more slowly, others over-compensated for these birthing inhibitions, and in being resilient advanced developmentally. In order to draw more accurate conclusions, it would be useful to closely investigate the differences between the developmentally delayed and the advanced delinquents experiencing particular prenatal traumas, in relation to the health records of these mothers during and after their pregnancies.

One heavily emphasized indicator of healthy development is that of a child's attachment(s) to significant others. Based on the Attachment Theory, happy and healthy children are said to feel connected to either one or both of their parents, and as a result are able to use their first attachments as models for entering into other intimate and positive relationships throughout their growing years (Rutter, 1990). Interestingly, however, the results of the present investigation revealed an inverse relationship of this attachment model for delinquent adolescents. While nondelinquents perceived themselves to be negatively and weakly attached to their fathers, they described their attachments to their mothers and peers as positive and strong. In contrast, delinquent adolescents reported being negatively and weakly attached to both their fathers and mothers, and perceived themselves as more positively and strongly attached to their peers.

Given that peers play a significant role during the adolescent developmental period, it was not that surprising to find both nondelinquent and delinquent youth strongly and positively attached to their friends. However, precipitating causes and explanations for these strong peer

attachments may differ among nondelinquent and delinquent youth. For instance, while nondelinquent youth may have used their strong maternal attachments as models for their peer attachments, delinquent youth may have reported positive peer attachments because it is in these relationships that they may have been more able to find support and fulfil their need to belong. Thus, not only may the attachments between delinquents and peers be based on convenience, but they may also be transient in nature.

Nonetheless, the attachment findings of the present investigation support both the Social Control Theory and the Attachment Theory. These theories posit, that adolescents with strong parental attachments are less prone than others to engage in delinquency for fear of parental disapproval and subsequent rejection (Warr, 1993; Wilkinson, 1982). While the nondelinquent youth in this sample may have been able to avoid delinquent activities because they experienced a positive maternal attachment and thus feared threatening this relationship, the delinquent youth had neither parent to serve as a barrier to delinquent conduct. Instead, coupled with a pathological home environment, the 'negative' insecure, anxious, or avoidant attachment styles of these youth may have exacerbated feelings of rejection and promoted youth involvement in delinquency.

As already indicated, most of the fathers in the sample come from professional occupations. In order to achieve, maintain, and then be promoted from these positions, however, commitment and persistence is typically a requisite. Consequently, professionals may often sacrifice time with their families in order to resolve business crises and attend to meetings and conferences away from home. Thus, one possible explanation for weak ties between youth and fathers may stem from a lack of time spent with each other. Of course, one may argue that it is not quantity, but rather quality of time spent together that determines the nature of a relationship and interpersonal bonding. Even with this argument, however, it still may be that when youth and fathers find time to be together, youth perceive their fathers as less understanding and sympathetic to their personal plights. Family members who are physically and/or emotionally isolated from each other tend to be ignorant of or uninterested in other family members' motives and viewpoints.

Based on the more powerful multivariate analyses utilized in the present

study, it was found that negative paternal attachment differentiates between nondelinquents and delinquents. This finding supports Loeber and Stouthamer-Loeber's (1986) meta-analysis of family correlates and predictors of delinquency, which similarly found a lack of paternal rather than maternal involvement with children to be strongly related to delinquency. On the other hand, univariate analyses in the present study reveal maternal versus paternal attachment as distinguishing between nondelinquents and delinquents. In fact, more delinquents than nondelinquents were found to perceive themselves as negatively and weakly attached to their mother. While it is not possible from this data to determine the causal direction, as to whether or not delinquency resulted in negative maternal attachment or vice versa, a few interpretations for this finding may be posited.

To reiterate, more delinquent youth experienced prenatal complications, and reached their developmental milestones either too early or late in comparison to nondelinquent youth. Thus, not only did more mothers of delinquent rather than nondelinquent youth encounter stress and pain during their pregnancies, but they also may have experienced disappointment and fear when their children did not reach their developmental milestones on time or reached them before the 'normal' expectations. According to Brown (1984) a parent who has inadequate knowledge with regard to child development may perceive behaviours that are characteristic of a particular developmental stage as deviant behaviour, or may not tolerate deviations in the developmental sequelae at all. Such a parent may become excessively frustrated and respond with punishing or abusive behaviour. Children "cannot survive without parental nurture, and there is no childhood fear that strikes at the basis of a child's security as much as the fear of losing one's parents or losing their love" (Jenkins et al., 1985, p.45). If this is the case, then mothers of delinquents may have either (un)intentionally distanced themselves from their child(ren), or distanced their child(ren) from themselves as a result of their unrealistic expectations. Either of these situations would make it extremely difficult for the child(ren) to establish a positive or strong bond with their mother. Moreover, given the widespread psychopathology among mothers of youth in the present study, it may have been difficult for mothers to provide the reassurance, sensitivity, and care required by these youth as they were growing up.

A second explanation for negative attachments between mothers and delinquent youth, involves the possibility that in not approving of their children's delinquent conduct, mothers may be viewed by delinquent youth as more difficult and oppositional. The literature indicates that families of delinquents tend to have more conflict and frequent disagreements (Tolan et al., 1986). Although more information on parenting styles of the delinquents in the present sample would have been beneficial, based on Henggeler's (1989) findings, delinquency is associated with high rates of conflict and low levels of parental acceptance. If dad is typically away from home and mom does not agree with what the adolescent is doing, the parent typically at home (i.e., mom) tends to become enmeshed in escalations of conflict with the youth. From this perspective, it would be less likely that youth acting against their mother's wishes would be able to retain a positive attachment to her, especially, if they interpret maternal disciplining as a form of rejection.

Whether a child will develop secure and positive attachments to others has also been found to depend on whether or not (s)he has been personally violated. Researchers of childhood abuse have found that children who are abused are typically insecurely attached to their caregivers as well as other persons they interact with (Perry, Perry, & Boldizar, 1990; Cicchetti & Olsen, 1990). Moreover, adolescent delinquents have been associated with parents or guardians who employ lax, erratic, or overly strict physical punishment (Tolan et al., 1986; Loeber & Stouthamer-Loeber, 1986). In contrast to the results of Brown (1984) who found that physical abuse was not positively correlated with any form of delinquency, the present investigation showed that more youth who were classified as delinquent rather than nondelinquent, had previously experienced both physical and sexual abuse. Specific distinctions within the category of sexual abuse showed that while abused nondelinquents experienced more repeated instances of intrafamilial sexual abuse (i.e., incest), the majority of delinquents tended to be sexually abused extrafamilially, both in isolated and repeated instances.

Although incest has been considered one of the more devastating forms of abuse inflicted on a child, in this sample, the uncertainty of being sexually abused by anyone, at anytime, and anywhere could be equally destructive and painful. In constantly looking for the next perpetrator, it not surprising that these youth may be unable to trust anyone long enough to form any type of

bond or attachment. Moreover, it may well be that with this 'hyper-vigilance' operating, adolescents are more prone to finding opportunities to act out delinquently, and seek revenge on real and potential perpetrators. Esbensen and Huizinga (1991) argued that crime and victimization have traditionally been studied as separate domains. Yet, based on the findings of the present investigation, a plausible argument could be that adolescent involvement in delinquent activities may be associated with an increased risk of victimization, both in the past and future. It may be that victimized youth are more likely to retaliate against society through delinquent conduct.

Given the kind of problems in the personal lives of delinquent adolescents (i.e., negative attachments to both parents and greater instances of physical and sexual abuse), it is no wonder that the school delinquency correlate was supported in the present study. Specifically, more delinquents than nondelinquents performed poorly at school. This finding replicates previous studies which have similarly found that school competency is negatively correlated with delinquent behaviour (Gottfredson, McNeil III, & Gottfredson, 1991; Ellis, 1987). One possible explanation for this finding may be that in being mentally overtaxed with their own personal problems, these adolescents are unable to concentrate on meeting homework deadlines or master subject content. Unfortunately, when this problem overload is manifested in ways such as absences, late arrivals, or uncompleted projects, school personnel may judge the youth as mentally slow, unmotivated, apathetic, or delinquent. With an abundance of negative judgments to choose from, adolescents may lose interest in school, drop out, or begin acting out. According to Violato and Travis (1994), the consistent association of delinquency with poor school performance may be a result of over-supervising and monitoring of delinquent youth by school personnel, as well as weak, inconsistent, and ineffective reactions to delinquents by teachers and principals.

#### Gender Differences in the Nature of Delinquency

Given the overwhelming nature of external influences on the youth in the present study, it was not surprising to find intrapsychic and gender influences assuming a less significant role in the etiology of delinquency. In fact, the results of the present investigation revealed more similarities than differences between female and male adolescents. Nonetheless, among the

dissimilarities was the finding that more maternal psychopathology was reported by females than males. While this may be an accurate reflection of their mothers' mental health status, this finding may also be a reporting bias. In assuming that girls adhere to society's gender scripts which encourage boys to explore the external world and girls to remain within their 'protective' household walls, it may be that girls had more information as to the experiences of their mothers, and thus were more able to report it to the interviewers.

Among the 19 types of delinquent behaviours engaged in by the adolescents in the present investigation, statistical differences based on gender were obtained on only two of them. Specifically, more females than males reported being sexually active and abusing substances. While it may be that adolescent females in this sample exaggerated reality in order to appear less conservative and more rebellious, these findings may reflect an overlapping of behavioral expressions between females and males.

The five most prevalent forms of delinquency in descending order for females included: substance abuse; truancy; self-mutilation, sexual activity, and running away; street drug use; and break and enters. In contrast, the most common delinquent acts for males were: truancy; substance abuse and self-mutilation; sexual activity, running away, and break and enters; sexual demeanours; and street drug use, assault, and shoplifting. Several conclusions can be drawn from these findings.

First, because substance abuse is a high ranking form of delinquency for both females and males, several negative repercussions can result. According to Newcomb and McGee (1989), adolescent drinking often accompanies other deviant activity. In fact, while it may be that alcohol use facilitates criminal activities, it is also conversely possible that engaging in delinquent acts may lead to greater alcohol use. Bartol and Bartol (1989) argued that "most delinquent youths reported heavy alcohol and marijuana use, as well as some use of other drugs such as speed, hallucinogens, and cocaine" (p.244).

Second, although many still associate female delinquency with sexual misconduct, the present investigation does not fully support this belief. Although more females than males reported being sexually active, as a type of delinquent behaviour it was ranked third for both females and males.

Moreover, prostitution was even less prevalent, and rates were found to be comparable between females and males.

A final point of discussion to be noted from the above list of delinquent behaviours concerns the nature of delinquent acts female and male adolescents in the present sample tended to engage in. It appears that females act out in ways that affect themselves and can be socially isolating (e.g., self-mutilation and running away), whereas males tend to engage in more 'externalizing' maladaptive behaviours since they tend to involve harming themselves as well as other persons (e.g., self-mutilation and sexual demeanours). This supports Rutter and Giller's (1984) contention that examination "of the types of offenses committed also indicates that girls are especially less likely to be involved in crimes involving damage to property or injury to other persons" (p.120).

It seems that the victimization variable did not only differentiate between nondelinquent and delinquent adolescents, but it also distinguished between females and males. Although male adolescents also reported having been abused, the majority of those sexually abused were female. Moreover, in contrast to male 'victims' who experienced repeated instances of intrafamilial and extrafamilial sexual abuse at similar rates, females were typically abused by persons external to the family on isolated instances. While the literature supports the present study's finding that more females than males tend to be vulnerable to sexual abuse, previous research has found that more females are victimized by family members since accessibility is easier (Chesney-Lind, 1989; Gibbons, 1976). In drawing on the few gender differences resulting from the study, it may be that because these females are more sexually active and may have been under the influence of alcohol more often, they placed themselves at higher risk for sexual victimization.

Finally, the univariate results of the present investigation indicate that there are no statistical sex differences in youth attachments to mother, father, or peers, and thus they contradict the common assumption that males have weaker bonds to parents. Instead, Johnson's (1987) conclusion that "the sex of the adolescent has very little to do with the strength of parental attachment, even when sex of parent and family structure are taken into account" (p.312) is supported. Nonetheless, when the more powerful multivariate analyses were computed, negative paternal attachment

discriminated between male nondelinquents and delinquents, but not between female nondelinquents and delinquents. It may be that a negative attachment to a gender-same role model, with whom the adolescent is unable to identify, is a more significant variable in the development of delinquency for males than females.

Therefore, excluding the results on the maternal psychopathology analysis, the present investigation questions the decision that theories of female delinquency should focus on psychological factors and family variables, while theories of male delinquency stress sociological, political, and economic factors (Seydlitz, 1990; Johnson, 1987). The gender-based discriminant analyses of the present study indicate that certain variables, such as being diagnosed as conduct disordered and performing poorly at school, commonly impact both female and male delinquents. On the other hand, whereas victimization, nontraditional family households, experiences of early childhood problems, and negative peer attachments emerged as important discriminating variables among female but not male delinquents, negative paternal attachment discriminated between male but not female delinquents. While it is true that sex differences even among delinquent adolescents exist and thus theories should appropriately emphasize and account for these differences, caution must be taken so that the selection of the explanatory factors represents true differences rather than mere stereotypes and gender scripts.

#### The Impact of Family Variables on the Delinquency Relationship

Since many of the significant family variables explored in this study were already discussed in the sections of similarities and differences between nondelinquent and delinquent youth, and female and male adolescents (e.g., parental attachments and abuse history), it would be redundant to discuss them in detail once again. Instead, a response to the question of the impact of family variables on the delinquency relationship will be provided with special emphasis given to the results of family psychopathology.

The socialization influences of parents have long been thought to mould children's personalities and behaviours. Over the years, research has suggested that family variables are important in the development and treatment of many delinquency problems. For instance, parents of delinquents have been found to monitor their child(ren) less, ineffectively deal with unacceptable behaviour and deal inappropriately with family

conflict, have minimal aspirations for their child(ren), avoid engaging in leisure activities as a family, act with hostility or indifference toward school endeavours, have personal and emotional problems of their own, and have police records (Mussen et al., 1990). In adopting this view, psychopathy researchers have proposed that a cycle seems to exist, which transmits psychopathology intergenerationally. According to Robins and Ratcliff (1979), when adults with a form of psychopathology become parents, "they are likely to neglect the supervision of their children, fail to support them, and subject them to broken homes when their own marriages fail, thus setting the scene for a renewal of the same pattern in the next generation" (p.97). This research points to the importance of finding ways to interrupt detrimental patterns in childhood, so that prognoses for the future are less frightening.

Given this proposed cycle of psychopathology, and the fact that the sample for this present investigation was obtained from a psychiatric institution, it was not surprising to discover that the majority of youth (over 86% of nondelinquent and delinquent alike) reported the existence of some form of family psychopathology.

Both nondelinquents and delinquents reported that the most common family member with a psychopathology was their mother. Even though more mothers may be seeking employment outside of the home, they are still the primary caregivers in most households. In fact, even in this study, sole mother households comprise a large majority of youth's living arrangements. Thus, if mothers spend more time with their children than fathers, and maternal psychopathology is more common than that of paternal psychopathology, then one may conclude that mothers are primarily responsible for 'transmitting' psychopathologies to their child(ren). It may well be that children of clinically diagnosed parents are at an increased risk for a variety of types of psychopathology in comparison with children whose parents are not diagnosed or referred to treatment. Then again, one cannot be certain that it is the illness itself rather than the process of labelling that contributes to the development of child psychopathology.

Still, as Phares and Compas (1993) argued, "the tendency to hold mothers responsible for their children's problems has been accompanied by a lack of attention to the roles of fathers in their children's and adolescents' psychological maladjustment" (p.162). In an attempt to alleviate this limitation

of previous studies, the present investigation included an examination of paternal effects of psychopathology as separate from those of maternal effects. The results indicate that although there are no differences between nondelinquent and delinquent youth on maternal psychopathology, more delinquents than nondelinquents had fathers with a psychopathology. In other words, based on the present investigation, it was paternal psychopathology that differentiated between nondelinquent and delinquent adolescents. Although the direction of causality is not known, it may be that delinquency results from the stress of living with a mother who likely has a mental illness, as well as a father with a psychopathology. Moreover, because it still seems to be more acceptable for a woman to be 'mentally ill' than a man, adolescents may turn to delinquency in order to distract themselves from the stigma associated with having a father suffering from a mental illness.

Separate analyses revealed that the most frequently occurring pathologies for youths' mothers were depression and substance abuse, while for fathers the pathologies of substance abuse and aggression prevailed. Both of these results replicate the findings of other investigations. For instance, while the evidence clearly indicates that maternal psychopathology, most notably depression, is strongly associated with child and adolescent psychopathology and later maladaptive behaviours (Phares & Compas, 1993; Loeber & Stouthamer-Loeber, 1986), predominantly male pathologies such as alcoholism and antisocial personality disorder showed strong associations with youth conduct disorder and delinquency (Phares & Compas, 1993). As can be evidenced from the factor analysis results, Family Pathology is the factor that explains most of the variance (17%) in this investigation of delinquency.

It is true that family influences are apt to be multidirectional or reciprocally influential between parents and youth (Bartol & Bartol, 1989; Rutter & Giller, 1984), and that family factors "never operate in a vacuum but take place against a backdrop of other influences such as those exercised by children's peers, their school, and society in general" (Loeber & Stouthamer-Loeber, 1986, p.128). However, it is also true, that the findings of the present study strongly suggest that as the number of familial handicaps increase, so too do the chances that youth will become delinquent. Thus, it may well be that given the backdrop of other conditions, certain families can be more at risk of producing delinquent youngsters than others.

### Limitations of the Present Study

As can be said of any study, the present investigation cannot escape a critical evaluation of its limiting factors. As a result of these conceptual and methodological limitations, the reliability and validity of the study may have been affected. Nonetheless, only a few of the more salient and crucial limitations will be addressed.

One of the primary limitations of the present investigation originates with it being an archival retrospective study. There are obvious disadvantages in using data collected by others for purposes other than one's research. Because the records utilized are kept for hospital administration purposes, the information recorded depends on the honesty of both adolescents and their parents, as well as the efficiency of the interviewer to accurately record all the material reported. Since the aims of the present investigation were not known to the interviewers at the time of assessments, both the quantity and quality of key variable information desired by the researchers was lacking. In fact, a few key variables to the study of delinquency (e.g., parenting styles) were excluded from the data collection phase because too many high level inferences would have been required. Furthermore, restrictions occurred on the specificity of some of the information obtained, as certain data had to be grouped into more global categories (e.g., attachments were rated as either positive and strong, or negative and weak). Just as there is no guarantee that the original interviewers recorded all the data indicative of delinquency, it is also possible that due to the overwhelming size of the files, relevant information in subject records was overlooked at the time of review.

A second and related concern involves the study's reliance on self-reports of adolescents and at least one family member. In fact, Jensen et al. (1993) stated that "the issue of discrepant information from parents and children concerning symptoms and behaviours bedevils most child and adolescent psychopathology researchers who rely upon multi-informant assessment approaches" (p.555). Although cross-validation of responses enabled the researchers to detect inconsistencies, since the information collected was essentially subjective material, it is possible that responses reflect defensive distortions or inaccurate elaborations in order to justify youth and/or adult maladaptive behaviours and responses. According to

Jensen et al. (1993), information collected based on parent reports may result from an artifact such as increased parental sensitivity due to increased public awareness and publicity concerning teenage delinquency.

Another limitation stems from the simple fact that the sample is not representative. Instead of sampling from young adults and delinquents from a variety of societal sectors, only those who were admitted to a psychiatric hospital program for young adults were studied. Although Jenkins et al. (1985) argued that the mental hospital has recently become an active resource for the treatment of maladjusted children and adolescents, including delinquents, the generalizations made from the present investigation are limited because of the nature of the sample. As a rule, research should focus on samples of children in "representative ecologies rather than samples of convenience and clinic samples exclusively" (Jensen et al., 1993, p.572).

Despite these and possibly other limitations, the present investigation has several strengths. Information regarding delinquency was not constrained by whether the adolescent had a police record or had faced officials for delinquent conduct; instead, both "official" and "unofficial" delinquents were included in the study. Moreover, a large sample size was obtained, and thus powerful multivariate analyses were utilized.

#### Summary and Conclusions

Based on the foregoing discussion, a model of delinquency may be proposed. The model presented can be seen as a preliminary effort that suggests the extent of specific relationships that can be tested in future research.

Youth who first encounter complications prenatally, have a mother with at least one psychopathology, are physically abused, develop negative or weak attachments to their father, perform poorly at school, and then are diagnosed as conduct disordered, seem to have a great risk of becoming delinquent. If the youth is female, then in addition to these factors, living in a 'nontraditional' household, experiencing sexual abuse, and developing weaker attachments to peers, seems to increase one's chance for delinquent involvement. On the other hand, if the youth is male, delinquency can be predicted when prenatal problems are experienced, paternal attachment is perceived as negative or weak, attachment to peers is positive or strong, school performance is poor, and a diagnosis of conduct disorder has been

made.

Not only are both the Social Control and the Attachment Theory strongly supported by the findings of the present investigation, but it also appears that they are able to tie these psychological and sociological variables together in their explanations of delinquency. The results of the factor analysis, in particular, identify the relevant underlying themes. Youth who come from pathologic family environments, reach their developmental milestones at unpredictable (i.e., either advanced or delayed) rates and are considered poor achievers at school. These adolescents have experienced personal victimization, tend to lack attachments to persons conventionally tied to society, and specifically have rejected their parents as legitimate role models.

Despite the overlap between these theories and the findings from the present investigation, a significant element remains unaccounted for. It is the interactive element of the interdisciplinary approach, which is absent in the other theories, that can give one even greater explanatory power in the study of developmental psychopathology. Because parent-adolescent interactions are viewed as interdependent components of a spiral of recursive feedback loops, whereby the behaviour of one influences the behaviour of the other and so forth (Henggeler, 1989), the interdisciplinary perspective does not assume that the factors which initiate delinquency are the same factors which cause it to continue (Rutter & Giller, 1984). It is this dynamic nature which also takes into account the reality that delinquent conduct is typically an episodic and transitory activity for the majority of young adults, and that people can grow in and out of certain behavioral styles.

According to Jenkins et al. (1985), delinquency can be considered either maladaptive or adaptive. Maladaptive delinquency is seen as a product of inadequate socialization in early life and is associated with "parental deprivation, particularly maternal deprivation, early in life; parental rejection, especially maternal rejection; and the consequent development of hostile or fearful egocentrism with a mistrust of others" (Jenkins et al., 1985, p.18). On the other hand, adaptive delinquency is believed to be the product of "environmental stress and pressure---poverty, overcrowding, lack of parental supervision, exposure to delinquent companions, and the lack of a satisfactory father figure" (Jenkins et al., 1985, p.18). Based on the model

resulting from the present investigation, it may be concluded that many of the youth in the sample engaged in adaptive delinquency. It may be that given the various stresses in their lives (parental pathologies, perceived detachments to parents, experiences of abuse), youth believed they were 'motivated' to express themselves in ways the majority of our society defines delinquent. Nonetheless, adolescents need to be able to understand that violence and delinquent conduct "is only one of many possible ways to live" (Straus, 1994, p.19), and that once recognized, healthier life choices can be made.

Despite delinquency seeming to be so common, only a small minority engage in repeated and persistent delinquency. In fact, many delinquents participate in illegal acts only a few times and discontinue these before they get into the hands of the police or the courts (Gibbons, 1976; Rutter & Giller, 1984; Zimring, 1978; Seymour, 1988). While we may not be able to prevent delinquency, change is still possible. If factors in the environment lead to delinquency, then we should be working to change the environment and to help people cope. Straus (1994) argued that delinquency "can best be understood in its larger social and historical context. With open eyes, we are obliged to look beyond the individual for both causes and solutions" (p. xvii). Empowering adolescents to make personal changes exempt of violence can be most successful when simultaneous changes are made within the systems that create and perpetuate violence (Straus, 1994).

In a discussion by Thompson (1986), delinquency is likened to cancer, which is a disease with many origins, of which science is just now beginning to identify. Similar to cancer, it is still not clear why one child from "a particular neighbourhood, school, social class, and ethnic background becomes delinquent while another apparently subject to the same environmental influences, does not" (Mussen et al., 1990, p.670). Moreover, many youth from 'high-risk' backgrounds do not become delinquent, while a number of those who lack high-risk features do (Rutter & Giller, 1984). Despite the complexity and often perplexing questions that still remain unanswered, studies such as the present one indicate that the etiology of delinquency resides within disrupted childhood. Whether one or five hundred youth face this fate, change must be implemented, because even with those who appear resilient in the aftermath of violence (Straus, 1994), pain and

one's ability to cope with it varies across individuals and over time.

If our children are to grow to be responsible and healthy adults, the onus is on society to lay the foundations for this to happen. To ensure that "today's victims are not inevitably tomorrow's victims and offenders" (Straus, 1994, p.ix), the cycle of violence must be broken. A concerted effort among professionals is required, not only for the advancement of theory and research, but more importantly, for the betterment of our young people who represent our future.

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Appendix A**Coding Protocol****A) Patient Demographics**

- 1) Hospital #: \_\_\_\_\_
- 2) Age: \_\_\_\_\_
- 3) Gender: (1) male (2) female
- 4) Race: (1) caucasian (2) noncaucasian
- 5) Household Composition: (1) biological  
(2) step/blended  
(3) adoptive/group home  
(4) sole mother  
(5) sole father  
(6) friend/peer(s)  
(7) on the streets
- 6) # of admissions to YAP: \_\_\_\_\_
- 7) Entry method to YAP: (1) emergency  
(2) self-referred  
(3) school-referred  
(4) legal (police)  
(5) social services/doctor
- 8) Length of stay: \_\_\_\_\_ (days)
- 9) Mother's occupation: (1) Entrepreneurial  
(2) Professional/Managerial  
(doctor/nurse/teacher)  
(3) Skilled Labour  
(carpenter/electrician)  
(4) Unskilled (homemaker)  
(5) Unemployed

10) Father's occupation: (same categories as above)

**B) Developmental Life History**

11) Prenatal problems: (1) normal  
(2) premature/low birth weight  
(3) perinatal problems  
(c-section/high distress/  
forceps/breech presentation)  
(4) FAS/substance addictions

12) Early Childhood Dev.  
problems: (1) normal dev. milestones  
(2) early  
(3) delayed/learning disabled  
(4) medical problems

13) Physical abuse: (1) no (2) yes

14) Sexual abuse: (0) None  
(1) intrafamilial  
(2) extrafamilial  
(3) intrafamilial isolated  
(4) intrafamilial repeated  
(5) excessive force used  
(6) extrafamilial isolated  
(7) extrafamilial repeated  
(8) isolated intra and extra  
(9) repeated intra and extra

15) Family History of Psychopathology: (1) no (2) yes

- 16) **Maternal Psychopathology:** (0) None  
(1) ADH  
(2) Aggression  
(3) Legal Involvement  
(4) Substance Abuse  
(5) Depression  
(6) Suicidal Behavior  
(7) Anxiety Disorder  
(8) Schizophrenia  
(9) Autism  
(10) Eating Disorder  
(11) Sexually Abused  
(12) Chronic Physical  
    Illness  
(14) Learning Disability  
(15) Physically Abused

17) **Paternal Psychopathology:** (same as above categories)

18) **Other Family Psychopathology:** (same as above categories)

**C) Perceived Nature of Relationships**

19) **Maternal relationship:** (1) +/strong  
(degree of cohesion) (2) -/weak

20) **Paternal relationship:** (same as above categories)

21) **Sibling relationship:** (same as above categories)

22) **Peer relationships:** (same as above categories)

**D) Patient Behaviours**

- 23) Eating disorders: (1) no (2) yes  
 24) Runaway: (1) no (2) yes  
 25) Truancy: (1) no (2) yes  
 26) Sexually active: (1) no (2) yes  
 27) STD: (1) no (2) yes  
 28) Pregnancy/miscarriage/abortion: (1) no (2) yes  
 29) Prostitution: (1) no (2) yes  
 30) Sexual perpetration: (1) no (2) yes  
 31) Sexual perp. conviction: (1) no (2) yes  
 32) Self-mutilation: (1) no (2) yes  
 33) Substance abuse: (1) no (2) yes  
 34) Sensation-seeking/impulsivity: (1) no (2) yes  
 35) Physical aggression: (1) no (2) yes  
 36) Verbal aggression: (1) no (2) yes

- 37) Target of aggression: (0) None  
 (1) family  
 (2) staff/patients  
 (3) property  
 (5) peers

- 38) Suicide: (0) None  
 (1) ideation  
 (2) threats/gestures  
 (3) plan  
 (4) attempt  
 (5) ideation & threats/gestures  
 (6) ideation & plan  
 (7) ideation & attempt  
 (8) threats/gestures & plan  
 (9) threats/gestures & attempt  
 (10) plan & attempt  
 (11) ideation, threats & plan  
 (12) threats/gestures, plan & attempt  
 (13) ideation, threats/gestures, plan & attempt  
 (14) ideation, threats/gestures & attempt  
 (15) ideation, plan & attempt

- 39) # of suicide attempts: (0) 0 (1) 1 (2) 2 (3) >3

- 40) Scholastic performance: (1) satisfactory/good  
(2) non-satisfactory/poor

**E) Discharge Information**

41) Discharge diagnosis (DSM-IV):

1. Conduct Disorder (oppositional defiant)
2. Relational Problems
3. Personality Disorder
4. PTSD
5. Impulse Control Disorder
6. Eating Disorder
7. Sexual Dysfunctions
8. Dissociative Disorders
9. (Poly)substance-related Disorder
10. Anxiety Disorder (generalized anxiety)
11. Mood Disorder (depressive, dysthymic, bipolar)
12. Psychotic Disorder (brief psychotic, delusional)
13. Schizophrenia
14. Adjustment Disorder
15. Attention-Deficit/Hyperactivity
16. Pervasive Developmental Disorder
17. Communication Disorder
18. Learning Disorder
19. Mental Retardation

- 42) Discharge Placement: (1) family  
(2) temporary ward  
(4) friend/peers

- 43) Significant Medical Problems: (0) None  
(1) asthma  
(2) allergies  
(3) epilepsy/seizures  
(4) diabetes  
(5) ulcer  
(6) migraines  
(7) enuresis  
(8) hearing/speech  
impediment

**F) Other Agency Involvement**

- 44) Social Services: (1) before admission  
(2) at discharge  
(3) not involved  
(4) both times
- 45) Detention/shelter: (same as above)
- 46) Probation Officer: (same as above)
- 47) School: (same as above)
- 48) Private Counselling: (same as above)
- 49) Type of Delinquency: (0) None  
(1) (attempted) assault  
(2) theft/B&E (auto/home)  
(3) lying/cheating  
(4) property damage/vandalism  
(5) forgery/fraud  
(6) drug trafficking  
(7) use of street drugs  
(8) shoplifting  
(9) traffic violations  
(10) intoxicated/inebriated  
(11) sexual demeanours  
(12) firesetting

**G) Psychometric Measures**

- 50) Beck Depression Inventory \_\_\_\_\_
- 51) Gates-MacGinitie Reading Test Voc, Comp, Total (3 spaces each)
- 52) Global Assessment Functioning \_\_\_\_\_
- 53) WISC-R Verbal, Performance, Full (3 each)
- 54) Canadian Achievement Test MC, MA, T, RV, RC, T (3 each)