ANTISOCIAL BEHAVIOUR IN YOUTH: INFLUENCES AND RECOMMENDATIONS

by

Carole Hood

A thesis submitted in conformity with the requirements for the degree of Doctor of Philosophy, Human Resource Development Graduate Department of Adult Education, Community Development and Counselling Psychology University of Toronto

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Each time a person stands up for an idea, or acts to improve the lot of others, or strikes out against injustice, (s)he sends forth a tiny ripple of hope, and crossing each other from a million different centers of energy and daring, those ripples build a current that can sweep down the mightiest walls of oppression and resistance.

Robert F. Kennedy
ANTISOCIAL BEHAVIOUR IN YOUTH: INFLUENCES AND RECOMMENDATIONS

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ABSTRACT

This paper presents a theoretical review of research findings concerning predisposing influences for the development of antisocial behaviour in youth, and recommendations for intervention and prevention. An interdisciplinary literature review showed that a number of biopsychosocial factors in the areas of family systems, school/community, and genetics/neurology coalesce to predispose to aggression and violence.

In the area of family systems, antisocial influences include family discord and disruption, poor early attachment, parental pathology, and weak family relationships (poor communication, low cohesion). Among the strongest predisposing family variables were paternal involvement with the criminal justice system, harsh and aggressive parenting practices, and paternal alcohol abuse. Parent-child bonding (or attachment) was found to be affected by maternal depression, parents' isolation, maturity levels, understanding of child development/care, and socio-economic status. Difficult temperament in children may be both an outcome of, and a contributor towards, family stress. Violence in the family exerted profound impact on children, leading to indirect and direct aggression. Single-parent families were found to be at greater overall risk, as were
families with high levels of adversity. Violence in the media was found to impact on aggression learned in the home.

Influences in the arena of school/community included co-existing attention deficit hyperactivity disorder (ADHD), reading difficulties, and poor performance on neuropsychological tests. Socioeconomic disadvantage was correlated with a wide range of negative outcomes including family stress, indirect aggression, academic difficulties, emotional disorders, higher hyperactivity scores, and delinquent behaviour.

In terms of genetic/neurological elements, it has been discovered that the most extreme type of antisocial behaviour--psychopathy--is associated with an inherited structural abnormality in the frontal lobes and/or a chemical imbalance of the brain.

A confluence of variables in these three categories will almost certainly put children on a trajectory towards antisocial behaviour. Without help, their lives can become a downward spiral of delinquency, aggression, and criminal offending. Successful interventions establish early universal screening processes, utilize a multimodal educational and therapeutic approach involving the child, family, school and peers, and provide both immediate support and continuing follow-up. The costs of such interventions are minimal in comparison to the effects of chronic offending over a lifetime. Such offending currently amounts to annual costs of $46 billion dollars in Canada and $425 billion dollars in the United States.
Acknowledgements

Sincere, special thanks to my supervisor, Dr. Budd Hall, whose leadership and guidance enabled me (and many others) to pursue paths of higher learning in areas which met important needs, at the same time satisfying rigorous academic requirements and standards. I am grateful to have had the opportunity to work with Budd for this reason, but also because I have had a chance to see a fine leader, manager and chairperson in action. From this too, I have learned much.

Many thanks also to Dr. Peter Gamlin and to Dr. Mary Alice Guttman who provided valuable input and guidance as my committee members. It is due to their combined coaching that this paper has reached the current level of depth and comprehensiveness. I believe that a great deal of learning has occurred which would not otherwise have materialized. Their work is very much appreciated.

Throughout the investigative process, the numerous published works of Dr. Jalal Shamsie have been a tremendous help. I understood what is meant by tacit knowledge when I read Dr. Shamsie's books and the publications of the Institute for the Study of Antisocial Behaviour in Youth, an organization he founded. Tacit knowledge is that rare combination of solid empirically-based research combined with the fruit of many years of practical hands-on experience in the field. I am truly grateful to have had the opportunity to meet Dr. Shamsie and Ms. Sorrel Nicholl, Associate Director of the Institute, who together have been extremely kind and generous with time and valuable information. The
Institute's publications help to educate many professionals and through this process, to establish sound intervention and prevention guidelines for children and families at risk.

My partner, Dr. Colin Campbell, has been his usual wonderful self and I thank him for his encouragement and the gifts of several books which helped my research. To Colin ... my continuing gratitude and admiration. Last, but never least, Simon and Allison Hood have spurred their mom on with unflagging support and expectation. They are adults now, but they will always be special angels in my life.

It would be my hope that through this thesis, some good things might happen to improve the lot of so many children who, without appropriate intervention, may slide towards lives of unhappiness and waste. We know now how antisocial behaviour is developed, and we know now how, in large measure, to offset predisposing factors. This investigative summary is offered as a small addition to an amazing amount of superb research in the field which is already beginning to take root and blossom.
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CHAPTER ONE: INTRODUCTION

Introduction to Antisocial Behaviour - in My Own Voice

I arrived at East-West High School quite unprepared for what life was delivering to my door. As an adult educator for much of my career, I looked forward to the opportunity of working with high-needs adolescents with not a little trepidation. I was comfortable with adults, and I appreciated the life learning they brought to the educational process. It was always a major source of satisfaction when a student got a job, or was accepted to higher education, or finally managed to get professional accreditation for foreign training and experience. There were difficulties in the lives of these adult learners for sure, but we could see results that were positive and life changing.

It seemed somewhat ironic that most of my teaching/facilitation experience had been with people in career and life transition because at this particular juncture in my life, I, too, was experiencing several major endings. From the work of Carl Jung and William Bridges, however, I had a perspective which viewed endings as the prelude to new beginnings. I believed that the “death of the old system” (i.e., the patterns, processes and connections) could be considered as a necessary part of a larger scheme of renewal and growth. This theory provided a level of trust that—in the total scope of things—some profound, nonlinear, healing, whole-making, life-affirming dynamic was at work. And yet, it was far from perfect. I had just completed about a year and a half of doctoral research in the area of intercultural competence for international training and development. How was this going to fit with work in a technical/vocational high school?
I had no idea. And so it was that I reported for work with a mixture of wariness and curiosity. What I first experienced was quite different from anything I had ever encountered. It was indeed a unique culture. There were different ground rules, different constituents, different modes of being, different styles of interaction, quite different ways of viewing the world. All my work on intercultural competence could not begin to encompass this new culture to which I was delivered.

It was, as they say, a whole new ball game. On the first day, our principal addressed her staff. I sat in my seat in rapt attention. She began: “Our kids here at East-West have learned how to beat the system. That is why they are here. They do not fit in well at other schools. They are very skilled at what they do. They will test you to the max. I have no guidelines or instructions to give you. For each teacher, it will be a different process. Keep trying things until you find something that works. Talk to each other and share the good stuff. Support each other when the going gets rough, and for all the new teachers, good luck.”

Those words stayed with me and provided an odd sort of comfort as I plunged into the most challenging job of my teaching career. Here were about 650 students comprising several high-needs groups: a group with pervasive developmental disabilities, a group with very low literacy (around grade three for many, less for some), and a group of students with behaviour problems, learning disabilities or attention deficit hyperactive disorder. I had children from all of these groups combined in the one classroom, very often without a text or standard curriculum. At first, I was shocked that there were no books. I soon realized that each of the 20 to 25 kids in the room would require an
individualized program or some system which would allow them to work at their own
level of ability and at a speed which was comfortable enough to promote learning.

East-West High had something of a reputation. Perhaps that is why we had
difficulty getting supply teachers. Most often, a new supply would arrive, stay for one
day, and never come back. They would say that their skill and training were no match
for the challenge and there were “easier ways to make a dollar.” A huge disadvantage for
every supply teacher was in not knowing the names of the students. This is when
students really “enjoyed” themselves, much as frisky little cats enjoy toying with a
mouse.

As in all schools, at East-West it was a great game to outwit, befuddle or
otherwise “undo” supply teachers. There were all kinds of techniques which included
humming in unison, knocking on the underside of desks, changing desks and names, not
knowing how to do the work or understanding anything about it, not having pencils or
paper, not understanding or speaking English, throwing items around the classroom,
inching all the chairs and desks forward as a group, etc., etc. At East-West the list
included a few others as well. A supply teacher could be called any number of unsavoury
names, or even better, creative hyphenated combinations of unsavoury names! A supply
teacher might find himself or herself in a confrontation with a very annoyed, large, strong
adolescent who was quite accustomed to settling any differences of opinion with a
physical fight. When a student said to a teacher, “Don’t bug me, man” or “----- off”, etc.
the teacher was wise to listen well and very politely. The kids had their own language,
but they could get their message across quite clearly.
Imagine my surprise when I learned on the first day of school that I was going to be an in-house supply teacher for the first three months. I would be responsible for teaching all the subjects and I would be responsible for having lesson plans ready for every eventuality. Since there were no books, I would have to photocopy batches of stuff at various grade levels to meet the differing ability levels of my learners. I would teach English, Math, Social Sciences, Machine Shop, Auto Mechanics, Autobody, Woodworking, Computers, History and Geography whenever a regular teacher was away. Between 8:45 am and 9 am each morning I would receive three 76 minute classes which I was to teach during the day. The odd time, there would be a lesson left by the absent teacher, but 99% of the time, I was on my own.

To say that my faith in life’s wonderful ways of delivering change and renewal was shaken is something of an understatement. The preparation and teaching itself was a huge challenge. I found that I needed a range of material that was as basic as grade three but with content which teens could appreciate. I also needed material that was grade level (i.e., roughly 9 to 12) for the brighter students with behavioural difficulties or other disabilities.

I was soon to learn, however, that this was the least of my new challenge. More challenging than all this, was learning how to meet my students “where they were at.” There were times when I felt physically intimidated and there were many times when I felt emotionally abused. I began to understand “gang mentality” and “mob psychology” in a way that I had never grasped before. There is nothing quite like experience to balance years of university courses and counselling practicums. I was often so angry and
exhausted at the end of the day I couldn't face a thing. I would have to leave the school and arrive early the next morning to try and get another batch of teaching materials ready.

The pressures of preparation were just part of it. The school milieu was like another world. I found the halls wild and chaotic. I tried to stay to the edges so that I wouldn't get knocked about or bashed around from the ongoing scuffles, leaps, or games of chase. The noise level in the halls was quite unsettling. The classrooms weren't much better sometimes. The shops were particularly scary for me at first since they were cavernous garages and had a large variety of power tools and equipment.

Apparently I wasn't the only one who found them formidable. I learned that a seasoned English teacher who was also new to the school had had a particularly grim experience during an on-call in the machine shop. Apparently the students had taken over, turned on assorted pieces of equipment, and literally climbed the high walls with the help of a high ladder. Pandemonium reigned. The teacher felt vulnerable - worried about the safety of the kids - and of himself. The teacher talked to his insurance company that night. The next morning he reported to the office that he had been advised not to oversee a shop again.

One day I was called via the PA system to the telephone. It was the Volunteer Bureau and they had found a volunteer for me. He was young and he was completing his final year of an honours university program. His name was Brian and he sounded very polite. I was delighted. I invited him to come to the school and meet me. The moment I saw him I knew I would "hire" him. He was over six feet tall, trim and probably around 180 pounds. My body guard had arrived. Brian had registered for volunteer experience
because he wanted to go into the Education field. My only worry was that his experience at East-West might put him off his vocation forever.

The next time I was assigned to teach in one of the shops, Brian was with me. Often he deftly stepped in when things seemed to get a little dicey. During this class, despite the fact that there were two of us on the job, a couple of kids decided to play a little game of hide and seek behind the cars. We got them back to their seats momentarily, but they had unlocked a small door. When the class was dismissed, they went out the school's side door to the parking lot, opened the small door to the garage, and wheeled out a TV and VCR to a waiting car. The theft-proof safety wires securing the machine were not a problem for them. One of the other teachers heard them while his class was going on in the next garage, but could see nothing and therefore the kids could not be confronted. In the staff lunch room, all the buzz was about the latest theft. Brian and I hung our heads. How could we possibly have let something like that happen?

This is just a small illustration of how things were. Theft was rampant. Special security locks had to be made available for all the lockers, since virtually every ordinary combination lock was jimmed and the contents of the locker stolen. An administrator had her wallet lifted from her jacket in her office. Two teachers had their cars stolen from the parking lot. Countless thefts happened on a daily basis. I never carried a purse or wallet in the school and I very quickly learned to keep all classroom supplies and materials carefully locked up.

For about two months, I felt that I was hovering somewhere in the nether world. I felt incompetent, stressed in the extreme, and physically, emotionally and spiritually
exhausted. In the first three weeks of school, there had been numerous violent incidents, two gun incidents and an attempted (or perhaps actual) rape. Most of these things were never communicated officially to the staff, but we heard about them through informal channels. I learned subsequently that because the perpetrators of the crimes were young offenders, their identities could not be revealed. And much later I understood that it probably would not have helped if we did know about all the things that happened. It was enough just to cope with each day's challenges.

At one point, I decided to take charge - to address the challenge proactively, as it were. I bought a personal alarm which I wore under my jacket. I took a few lessons from a martial arts master. My skill could never have saved me in a confrontation, but the lessons improved my morale a little. Once when a student happened to see my personal alarm he mentioned it out loud to the class. For a moment, I felt like a deer caught in the headlights. Fortunately, one of the other students corrected him. “That's not an alarm stupid - don't you know a pager when you see one?” I smiled benignly. It was dropped without incident. But some strange magic had been worked. I seemed to have gained some new status. I heard later that the saaviest kids used pagers because when you are drug dealing, you never want your home phone number identified.

At about the two month mark, there was something of a turning point one afternoon. I had learned to hand out a piece of work as soon as I entered a class, have students put their names on it, let them know that it was counting for marks, and that I was submitting the assignment to their regular teacher who would be marking it personally. While they were starting the assignment, I would walk around the class and
quietly draw up a seating plan so that I would have their names, which I would then memorize.

Late one afternoon I was in a class that seemed especially restless and on edge. A full moon always made a noticeable and measurable difference in the school. Fights increased dramatically. Whether it was full moon or something else, I don’t remember. But after a few minutes, one student decided he was not going to do the assignment. He loudly proclaimed this, giving us all his impression of the particular piece of work with a few colourful phrases! The rest of the students perked up, their energy and enthusiasm returning noticeably. A few others soon decided they were not in the mood either. It was a simple act of defiance, I thought. I pointed out pleasantly why we were doing this, what it would accomplish, and why it was worthwhile. I told the student we’d soon be through it and could move on to something else if he liked. I had learned that if I did not keep a class gainfully occupied for the entire period, there could be hell to pay at any minute - and I would be the one doing the paying.

Some discussion went back and forth and soon it came down to the original student saying something like: “You’re just a supply teacher here and you can’t make me do this if I don’t feel like doing it, so why don’t you just “f--- off, b-----“. The student continued, “You think you can just walk into this school and do what you like. You don’t know what you’re dealing with here. You don’t understand what can happen.” He turned around and smiled at his friend in the back row. The friend eyed me intently with a dark steely gaze. The friend was a known gang member and had been suspended for the duration of the school session the previous year. In accordance with policy,
suspended students are almost always given another chance in September. He was back. This was both good and bad.

A strange kind of cool awareness came over me. I felt angry enough to call on some inner power in a strong but quiet way. I looked at him directly - and a staring contest began. I was not going to back down. After what seemed like an eternity, he looked away for a second. Then I responded to him by name, suggesting that he start his assignment. He was taken aback. "How did you know my name?" he asked, obviously worried. I replied, "I know your name, Joshua, and I know Marcus' name and I know Daniel's name and I know Rohan's name. I glanced at each one. None of them is in trouble yet, but you, Joshua, have a little problem with manners which you and I are going to have to sort out." His eyes widened and I heard him say the words quietly, but out loud, "Wow, what power!" He picked up his pen and started the assignment without another word. That afternoon I left the school a little less tired than usual. I had faced a group of kids who were probably all close to 6 feet tall, most of whom weighed about 60 to 70 pounds more than me. I had claimed some ground and I was still standing.

One other time, I was asked to assist the male teacher who was supervising the ISS Room (Internal School Suspension) room. When I arrived at the room, the first thing I noticed was a little wisp of a 14 or 15 year-old girl with hair pulled into two pigtails secured with brightly coloured baubles. She was standing legs askance, hands on hips, on top of a desk at the front of the room. From her place of dominion, she was uttering accusations about the sexual proclivities of the family man and father of three who sat at
the teacher's desk a few feet in front of her. I sensed a powerful amount of negative energy - it was something that I have not experienced before or since.

Sitting in the classroom was a student we'll call Antonio. He and I were friends and I had been helping him to learn to read. While Rosie showered a stream of verbal abuse at the supervising teacher, Antonio told me quietly that there was some "money grabbing" going on in the school. I listened quietly and asked him to say more. He looked up at Rosie and asked her to open her hand. She did, and there in her palm was a shiny looney. Not a further single word was said. I maintained a steady uninterested expression. The other teacher said nothing. The matter was dropped without further ado and Rosie continued her "discussion" with the other teacher. That night at the school bus stop, eleven kids swarmed Antonio. He would have been killed if passing motorists had not stopped and called police. I passed on the information about the looney to a vice-principal the next morning.

Rosie had been running a little game of extortion, a protection racket supported by her boyfriend, Rohan and his gang. A few days later, Rosie, Rohan and some of the kids who I had seen at the back of Joshua's class were gone from the school. Very quietly, without notice. I never heard about any of them again. It was business as usual. The next time I was supervising the ISS room, an amazing bit of synchronicity happened. I looked down at the desk and there in the midst of a pile of papers and books, were two booklets about troubled and troublesome kids. They were written by Dr. Jalal Shamsie, Director of the Institute for the Study of Antisocial Behaviour in Youth, and Professor of Psychiatry at the University of Toronto. The booklets described early life factors, family
dynamics and genetic disorders which lead to youth violence. I learned a few things that night as I read them cover to cover in a single sitting. The light dawned. For the first time, I began to make sense of my new life at East-West. I shelved my thesis on intercultural competence. I started a new one: the prevention of antisocial behaviour in youth. Maybe Jung and Bridges were right after all, I pondered.

This initial bit of synchronicity resulted in quite a change in my perception and my approach to the kids over the next year. I stopped seeing them as "the problem." I worried every time one was suspended. I worried even more when one was expelled. What had formerly been felt was a kind of relief, now became a concern. Where before I had seen the suspension as "one for our side," now I felt as though we had lost. I wondered what would happen to the kids who were demitted? They were too wild for the school, but would happen to them now?

The whole school looked and felt different. It was no longer a me-versus-them situation. The halls seemed different too. Before they appeared wild and chaotic and possibly dangerous. Now I saw the kids as lion cubs or tiger cubs playing with great spirit and energy in the very physical ways that young pups do - running, jumping, tumbling over each other, swatting their friends, and so on. I walked down the middle of the halls and was glad of the opportunity to smile and say hi to the ones who needed a little more kindness in their lives.

I had had my claws sharpened, but now I did not seem to need them. I could simply be a kind, but strong and guiding influence. Dare I say a mother tiger? And it was remarkable how some of the pups in my charge blossomed. They knew they could
not overstep the bounds. I had established my place in the pecking order and they were happy in theirs.

I hesitated to use the analogy of wild animals for myself and my students. But it did seem that some rough kind of social Darwinism operated. In the troubled lives of the kids, it was either "conquer or be conquered." And I too felt a kind of "do or die" imperative in those first three months at East-West. It seemed to manifest at a basic primal level. The kids were direct - they could go straight to the heart of the matter - they spoke in unequivocal language - very loudly when they needed to - they could sense any kind of pretense - and they had no qualms about getting physical. Many were rough and wild - and in their own way, amazing and wonderful.

Soon after my own transformation, the school underwent something of a transformation too. We pulled together to correct a few problems. We strictly enforced a uniform policy which had been instituted in September. We developed a process to solve problems in the halls. There were intruders (drug dealers, gang members or kids who were not enrolled in the school) and our own kids were skipping classes to meet with them. None of the teachers had enjoyed having a batch of four or five big guys with hats and hoods coming toward them in the hall when everyone else was behind closed and locked classroom doors.

Our new process worked pretty well, but as with all things, there is bound to be quirkiness from time to time. I myself was involved in one of these quirky incidents. As I was standing in the hall chatting idly with another teacher after school one day, a kid in a hat and hood crossed the hall and stepped into my space with a quick, sharp head butt.
The kid must have been very skilled because he stopped just millimeters before connecting. If he had connected, I think I would have been down for the count, given his size and the force and power that he put into the head butt. What I found most unsettling was the fact that there was no indication from his demeanor or body language that he was upset or that anything was wrong. He looked peaceful and calm, his gait was steady, and he was listening to his radio.

Fortunately we were able to identify him in spite of the hat/hood camouflage. When we met later in the principal's office to review the incident, I learned that it was not personal. I just happened to be there. As we talked, the principal asked me to communicate to Wayne how I had felt. I told him that I felt threatened and violated by his aggressive act. Wayne replied in a thoughtful, quiet way, “You mean by me being in your face?....Life is just like that. You were lucky - it could have been a lot worse. You know if someone decides they're going to get you, they will. There is nothing you can do to stop it. It can happen any time. It can happen when you're going to your car in the parking lot. You would have no chance.” I wondered if this was a threat. I did not feel particularly warmed by the prospect. My research has since shown me that the most severe cases of antisocial behaviour (i.e. psychopathy) are marked by lack of emotion, concern or empathy, a predisposition to aggression, pathological lying, and a failure to accept responsibility for actions. Wayne's cousin (a prominent gang member) was shot by a rival gang in a messed-up drug deal in Montreal. Both Wayne and his step-brother, who was also in the school, were members of a well-known Toronto gang. The literature characterizes behaviour like Wayne's as “controlled-predatory aggression.”
At the end of the year, graduation came and there was hardly a dry eye among the
visitors attending. It was by far the loveliest graduation either I or my young volunteer,
Brian, had ever attended. Ed, our very talented AV person, had captured on film the
spirit and unique personhood of each kid. Set to a backdrop of soul-stirring music which
filled the hall, we watched one of the most moving slide shows I've ever seen. We drank
fruit juice and ate wonderful hors d'oeuvres prepared by the kids in the commercial
cooking classes. It was a night to remember. Some of the kids were the first high school
graduates in their family history. Hundreds of awards were distributed. It was a
tremendous triumph. Brian and I felt that we had graduated too.

Postscript:

This year as I was leaving the school, a couple of violent young offenders were
accepted to the school. They each had a teaching assistant assigned to them (i.e., guard)
and a teacher. Four full-time staff positions were allocated to two kids. At the time, I
hoped with all my heart that it would work for them. Now after my research, I know we
needed to help them when they were in grade one. In 1999, from September to roughly
the beginning of January, somewhere in the nature of 3,540 suspensions for children
involved in violence were processed by the Board of Education (personal
communication).

This thesis is dedicated to the kids at East-West High and to a very special team
of teachers and administrators, the “saints” who help both small and large miracles
happen there on a daily basis. It is also dedicated to Brian who at the time of this writing,
has just graduated from the Faculty of Education at this university. And it is especially
dedicated to Dr. Jalal Shamsie and Sorrell Nichol, Director and Associate Director of the Institute for the Study of Antisocial Behaviour in Youth. Without their friendship and the superb work in their books and publications, this thesis would not have been possible.

East-West is a place where special kids can be who they are - struggling, disruptive, wounded, angry, aggressive, depressed or anxious. It is a good place and it is a safe place for kids who have trouble learning, and who have grown up with a dismal array of life difficulties. This is for them all - for the survivors who triumph at the graduations, and also for the ones who don't make it. Perhaps it will help in some way.

**Background to the Problem of Antisocial and Violent Youth**

Larger and larger numbers of school age children are manifesting antisocial behaviour and increasingly mature acts of deviance. From both the research literature and the popular press, we are given a picture of youngsters involved with levels of violence which include even murder and arson. Accompanying these acts of destruction of person and property are corresponding effects across a range of settings. These generally include the classroom, playground, the neighbourhood and home. From the literature, it is known that antisocial children often victimize others through bullying and coercion processes, and they themselves are frequently victimized by hostile, environmental reactions to their aversive behaviour patterns (Hollinger, 1987; Patterson et al., 1992). Researchers have, in fact, identified that 1 in 5 preschool children have behavioural or emotional problems, yet only 1 in 5 parents of these problem preschool children seek any help for these difficulties (Pavuluri, Luk, & McGee, 1996). It appears that we are dealing with a
phenomenon of some proportions.

Headlines related to this phenomenon made the front page of newspapers across North America not so long ago. The Globe and Mail in Toronto on March 1, 2000 introduced a story entitled "Naughty' boy with gun kills grade 1 classmate: Six-year-old girl shot in Michigan school." No doubt many were stunned because of the age of the perpetrator and his victim and certainly because of the magnitude of what the child had done. The newspaper report indicated that the child's father was serving time in the county jail and that the young boy lived with his mother, a younger sibling and a man referred to as an uncle. The school had decided earlier "that the boy should undergo psychiatric counselling because of emotional and psychological problems" (Gray, J., 2000).

This event was but the latest in a series of U.S. school shootings over the past few years. The following summaries of other shootings and homicides involving youngsters are provided as a concrete introduction to the problem of antisocial behaviour in children.

- On October 1, 1997 at Pearl High School in Pearl, Mississippi, a 16 year old youth fatally stabbed his mother at home, then went to school and shot two students to death, including his former girl friend.

- On December 1, 1997 at Heath High School in West Paducah, Kentucky, a 14 year old boy killed three students attending a prayer meeting after seeing The Basketball Diaries, a film in which the lead character opens fire on a classroom in a dream sequence.

- On March 24, 1998 at Westside Middle School in Jonesboro, Arkansas, two boys aged 13 and 11 pulled a fire alarm and opened fire as teachers and classmates
exited the school, killing four students and a teacher.

- On May 21, 1998 at Thurston High School in Springfield, Oregon, a 15 year old boy opened fire in the cafeteria, killing two students and wounding 23. Before going to school, he had fatally shot his parents, both of whom were teachers.

- On April 20, 1999 at Columbine High School in Littleton, Colorado, two boys aged 18 and 17, went on a planned shooting rampage, killing 12 students and a teacher before taking their own lives. (The Globe and Mail, ibid.)

- On Wednesday, April 28, 1999 at W. R. Myers High School in Taber, Alberta, a 14 year old boy carrying a .22 calibre sawed-off rifle shot and killed a 17 year-old boy and seriously wounded another. It was reported that the perpetrator of the crime had been bullied for years. One student provided this context: “He was everybody’s best punching bag. He'd sometimes get body checked into the lockers. They’d try to pick fights with him and he’d just take it. They knew he wouldn't fight back.” A further comment was offered by a 15 year-old fellow student: "This wasn't an act of senseless violence. There was sense... No one understood except for his only friends. People shouldn't be angry to (sic) him. Everybody's been angry to him for nothing his whole life."(Internet: http://cbc.ca/news/indepth/taber/omalley2.html)

- On May 6, 1999 in 100 Mile House, British Columbia a 15 year-old boy was arrested and charged with threatening to shoot his classmates. Police seized 24 guns and six knives from his house along with a list of the names of eleven students who had apparently “bugged” the boy in the past. The boy had been
suspended and had threatened to return to school in order to shoot a specific staff member and a number of students. The boy showed no emotion at his subsequent court appearance.

( Internet: http://www.canoe.ca/NewsArchiveMay99/candigest_may6.html)

- On November 14, 1997, 14-year-old Reena Virk was savagely beaten and murdered under a bridge in Victoria. Six girls were convicted of assault and a 17 year girl (Kelly Ellard) was convicted of murder. The attack began with one of the perpetrators butting out a cigarette on the girl's forehead. “The trial heard that Virk's injuries after the attack were akin to someone involved in an automobile accident. If she had not been drowned, she would have died from severe head and internal injuries.” (The Toronto Star, April 2, 2000).

- On November 14, 1999, a 15-year-old boy sitting in a Toronto park at a picnic bench was beaten to death by a group of youths, faces covered with balaclavas and bandanas. They had demanded cigarettes and money. A 14-year-old friend of the victim commented: “They were frightening, older than us, and all had masks ... the cops told us later that they had those metal things over their knuckles when they beat Mattie.” As a result of their attack, Mattie was left unconscious, bleeding and dying in his neighbourhood park (Shephard, Rankin & Wilkes, 2000).

- On February 12, 2000, at Emery High School in Toronto, Ontario, a blaze of gunfire left three teens wounded in a schoolyard ambush that was meant to settle a dispute. A 17-year-old innocently caught in the crossfire was wounded. One of the other youths, another 17-year-old who was shot several times in the chest, was
charged with attempted murder. A fellow student described the two 17-year-old disputants as “wannabe gangsters” and commented, “It's laughable, the way they try and imitate American street gang members - both wear bandanas everywhere.” Another commented, “They try to make it real. We used to laugh at them. We'd say go to Los Angeles.” The blasé character of this student's comment was echoed in the Globe and Mail Headline: “Shootout at school prompts an eerie attitude: Toronto students reacted to the sound of gunfire with an odd detachment.” (Rijn & Edwards, 2000, Wong, J., 2000)

This chronicle of shooting events is by no means an inclusive picture of violence involving young people. Nor does it do justice to the social costs of their crimes and the impact on the lives of victims and their families. Each of these events involved a murder which is often seen as a worst-case scenario in the continuum of crime evaluation. So-called lesser evils are, however, not always less impactful in terms of the extent of damages they bring to victims' lives.

Of this ilk, are the crimes of twenty-two youngsters, aged 12 to 17, who were deemed responsible on December 22, 1999 for lighting dozens of fires in Winnipeg, Manitoba over a six week period. Ten adults were charged with arson, but because all the children were juveniles they could not be charged. The fires destroyed buildings as well as livelihoods, forcing people out of their residences and leaving some homeless. Among those in the group were two boys aged 11 and 8 who set ablaze a church dormitory causing $1.7 million in damage (Roberts, 1999).
In a similar scenario, an 11-year-old boy in Hamilton, Ontario confessed to setting a blaze in an apartment building which caused the death of a 37-year-old woman. Neighbours and police said the boy had been a constant source of problems in the community - stealing bikes and causing mischief. The boy had been getting treatment for behavioural problems that had apparently plagued him for most of his life. His father had died three years previously in a car accident. His mother is quoted as saying: "I have no fear of my child (sic). He would never harm his family. He wouldn't harm anyone else." (Legall, 1999).

At times the horrors of crimes involving children touch our collective psyche. This is more often the case when the children are victims, rather than perpetrators. The following story has young people in both roles. On March 4, 2000 police charged an 18-year-old Ottawa student with possession of child pornography, distribution of child pornography and plotting to "abduct, rape, torture and then kill a child." An undercover police officer operating in an Internet chat room discovered the youth, arranged to meet him at a local mall under the pretext of helping him find a victim, and arrested him. Police seized evidence that the undercover officer described as "unimaginable" (Sands, 2000).

These stories convey images of antisocial behaviour and graphically illustrate some of the typical outcomes of conduct disorder. What is missing from media coverage is the chronicle which precedes the offence(s) and the sequel. Case histories of many conduct disordered youth show that their antisocial behaviour started in the preschool years (Shamsie, Sykes & Hamilton, 1994). They are often identified as difficult and aggressive children in day care or grade one and two. If they are diagnosed and treated at this stage,
outcomes tend to be much better. If not, they often progress through oppositional defiant disorder (ODD) to conduct disorder and chronic antisocial behaviour. Once established, antisocial behaviour is extremely difficult to change; recidivism rates are high. According to Shamsie (1994), aggression, next to personality, is the second most stable personality trait. Like personality, aggression evolves from a complex interrelationship of genetics and environment. Most criminals were aggressive and noncompliant children.

Shamsie (1994) has outlined etiology for noncompliant behaviour difficulties such as Oppositional Defiant Disorder (ODD). It begins when children are born with handicaps such as (ADHD) attention deficit hyperactivity disorder or difficult temperament. Parents of these children are not able to give the needed support and understanding they require. When highly stressed, they resort to harsh and aggressive parenting practice which tends to beget aggression in the child. A vicious cycle of coercion and defiance develops between the child and parents. The weakened parent-child relationship makes it difficult for the child to learn prosocial behaviour.

Children need at least one adult who can provide a close, warm and confiding relationship. They need a nonviolent home situation with mutual respect where there is no abuse of power. They also need clear boundaries as to what is acceptable and what is not. Acceptable behaviour should be consistently praised and unacceptable behaviour should be disapproved and consequenced. ODD does not have to result in antisocial behaviour, but without these protective factors, there is a strong likelihood that it will. One study in 1983 estimated that 5.5% of Ontario youth suffered from ODD (Boyle, 1991). It was pointed out this meant approximately 100,000 youth were on a potential path to antisocial
difficulties at that time.

Figure 1 (Shamsie 1994) shows potential progressions of disruptive behaviour disorders such as ADHD, ODD and CD. Outcomes for children with these disorders tend to be poor unless treatment and professional help are accessed. This is particularly the case when the children grow up in stressed and socioeconomically disadvantaged families where there is greater likelihood of abuse or neglect. Difficult temperament may be both an outcome of, and a contributor towards, family stress.

Figure 1. Troublesome Children Growing Up

\begin{center}
\begin{tabular}{|c|}
\hline
Antisocial Personality Disorder \\
Adults \\
\hline
Conduct Disorder \\
12-16 years old \\
\hline
Oppositional Defiant Disorder \\
8-12 years old \\
\hline
Attention Deficit Hyperactivity Disorder \\
4-8 years old \\
\hline
Irritable Child - Difficult Temperament \\
0-4 years old \\
\hline
\end{tabular}
\end{center}

Disruptive Behaviour Disorders (Youth more troublesome than troubled)

\textbf{Troublesome Children Growing Up}

Source: Shamsie (1994)
A semantic distinction is made between troubled and troublesome children. Troubled children suffer from internalizing emotional disorders such as anxiety, depression and phobias. Troublesome children are those who suffer from externalizing emotional and disruptive disorders, such ADHD, ODD and CD. These children certainly suffer themselves, but also tend to cause problems for others (Shamsie, 1994). When such children are identified early in life, effective interventions that include working with the family and school can be put in place. Given the stability of aggression it is important to continue monitoring both child and family to ensure that support and help are available when they need it. It is the interests of society to help at-risk children when they are young so that they are less likely to commit violent and destructive acts when they are adolescents or adults.

Child Development in Perspective

To put children's development in perspective, it is instructive to contrast the development route of antisocial behaviour with more typical developmental processes. For example, a Statistics Canada survey of 12- and 13-year-olds found that while they are largely a happy group, many appear to be “breaking the rules.” Close to a third of the children said that at least once in the past year, they stole something from a store or school or took money from their parents without permission. More than four in 10 report they threatened to beat someone up or had been in a fight with no serious injuries. Six percent were in a more serious fight, however, and as might be expected, boys got into fights twice as often as girls. Ten percent report smoking; 6 percent at least once or twice a week and
the vast majority said they have three or more friends who smoke. For these results, Statistics Canada first interviewed the parents of 23,000 children up to the age of 11 in 1995 and will track this group until adulthood - (see National Longitudinal Survey of Children and Youth [NLSYC] in later chapters). About 3,400 children were surveyed directly for the information above, then followed again two years later (Carey, 1999).

These statistics neither represent a serious problem, nor do they indicate a slippery slope towards antisocial behaviour. It would appear that children today are experimenting at younger ages because they are exposed to a much broader range of possibilities than previous generations. They are also encouraged to show individuality, to seek experience and express themselves both individually and collectively. It is known that with onset of adolescence, peers tend to have greater influence on behaviour than parents. For example, adolescents who had three or more friends who smoked were more than five times more likely to do so themselves. Those in families where the mother smoked were only 1.5 times more likely to smoke.

What delineates at-risk children from the general population is physical aggression. The survey, for instance, found that children who were physically aggressive when they were 10 or 11 were almost four times more likely than others to have problems when they were 12 or 13. Research has established that conduct disordered youth whose antisocial behaviour started early in life have a worse prognosis than those whose behaviour started later (after 10 years of age). Careful evaluation of these young people would include assessment for cognitive, neurological and psychiatric disorders which may be linked with the development of antisocial behaviour. Shamsie (1995) notes that conduct-disordered
youth are heterogeneous; the reasons behind their antisocial behaviour are varied. If early
diagnosis is made, the prognosis improves and an assortment of specifically tailored
treatments can be made available. It would appear from the following statistics that early
diagnosis and intervention can save a great deal of expense in the long run.

**Virus of Violence - Magnitude of the Problem**

Intentional violence accounts for one-third of all injury deaths in the United States
and intentional interpersonal violence disproportionately involves young people as both
perpetrators and victims. Among minority youth, particularly African Americans,
vviolence has struck with unique force in recent years. Homicide has been the leading cause
of death among African American males and females between the ages of 15-24 for more
than ten years. Between 1984 and 1993, gun-related deaths of young African American
males tripled, with the most dramatic rise among those 13 to 18 years old (National Crime
Prevention Council, 1996). The per capita murder rate doubled in the United States
between 1957--when the FBI started keeping track of the data--and 1992. A fuller picture
of the problem, however, is indicated by the rate people are attempting to kill one
another--the aggravated assault rate. That rate in the United States has gone from around
60 per 100,000 in 1957 to over 440 per 100,000 by roughly 1995.

The crime rate has climbed to phenomenally high levels worldwide. Here in
Canada, according to the Center for Justice, per capita assaults increased almost fivefold
between 1964 and 1993, attempted murder increased nearly sevenfold, and murders
doubled. Similar trends can be seen in other countries in the per capita violent crime rates
reported to Interpol between 1977 and 1993. In Australia and New Zealand, the assault rate increased approximately fourfold, and the murder rate nearly doubled in both nations. The assault rate tripled in Sweden, and approximately doubled in Belgium, Denmark, England-Wales, France, Hungary, Netherlands, and Scotland, and all these nations also had an increase in murder (Grossman, 1998).

Training to Kill

David Grossman (1998) is a retired military psychologist and former general who coined the term “killology” for a new interdisciplinary field: the study of the methods and psychological effects of training army recruits to circumvent their natural inhibitions to killing fellow human beings. He travels internationally training medical, law enforcement, and U.S. military personnel about the realities of warfare. He has put forward the theory that the same tactics used in training soldiers are at work in our media and entertainment. Grossman posits that today’s media “condition kids to pull the trigger.” He suggests that parents, scholars, the government and the church must come together to study this question more intensely.

He asks the questions: “Why are kids shooting their classmates? Are we training our children to kill?” Grossman is from Jonesboro, Arkansas, the site of a schoolyard shooting which resulted in the deaths of four girls and a teacher. Ten others were injured, and two boys, ages 11 and 13, are in custody, convicted of murder. His son was in a school just down the road from the massacre. He argues that children don’t naturally kill; they learn it from violence in the home and most pervasively, from violence as
entertainment in television, movies, and interactive video games. Indeed, it has been seen that a great range of empirical research would support his theory.

This virus of violence is occurring worldwide. There are many factors involved, and none should be discounted; for example, the prevalence of guns in American and increasingly, in Canadian society as well. Violence is rising around the globe and while many elements contribute to it, it would seem to make sense that draconian gun laws be intelligently reappraised. The roles played by child abuse, poverty, or racism must not be minimized, but at the same time, Grossman (1998) feels that the addition of any new variable (such as media violence presented as entertainment for children) must also be carefully considered.

Youth as Victims and Perpetrators of Violence

The recent school shootings (e.g., Littleton, Colorado; Springfield, Oregon; Paducah, Kentucky; Jonesboro, Arkansas) are atypical of youth violence, but are occurring in both U.S. and Canada with enough frequency to cause alarm. Since 1992, approximately 190 shooting deaths have occurred in American schools. While clearly a serious issue, it must be noted that these 190 school-related deaths represent only about 1% of all youth killed with guns at the present.

During the 1990s the vast majority of adolescent homicides were committed in inner cities and outside of school. On a typical day in the U.S., six or seven youths are slain and they are largely inner-city, minority youth. Males are overwhelmingly the perpetrators in homicides involving young people, accounting for more than 90% of
incidents involving those 10-17 years of age. Handgun homicides committed by young males (15-18) between 1980 and 1995 increased by more than 150%. This increase was no doubt fueled by the availability of handguns (Arredondo et al., 1999).

One quarter of youth violent victimizations in the U.S. involve the use of a firearm. Youth are three times more likely than adults to be victims of violence. The National Youth Risk Behavior Survey found that students reported feeling too unsafe to attend school at least once in the thirty days preceding the survey. The same survey revealed that 20% of high school students reported carrying a weapon (e.g., gun, knife, or club) at least once in the thirty day survey period. Approximately 8% reported carrying a gun, and 10% reported having carried a weapon on school property on one or more occasions in those 30 days.

In Canada in 1995 and 1996, juveniles were twice as likely as adults to be victims of serious violent crime and three times as likely to be victims of simple assault. Overall, juveniles were at greater risk of violent victimizations in 1995 and 1996 than even the most victimized age group of adults. Younger juveniles ages 12–14 were more likely than older juveniles to be victims of simple assault (73 per 1,000 vs. 56 per 1,000). The property crime victimization rate for juveniles was greater than the adult property crime victimization rate.

In Canada, six in ten youths charged in Criminal Code incidents in 1995 were charged with property crimes, while two in ten were charged with violent crimes. Of youth aged 12-17 charged in 1996, over half (56%) were charged with property offences. Youths accounted for four in ten persons charged with motor vehicle theft, breaking and
entering, arson, and robbery (CCJS, 1997). Youths aged 12 to 17 represent 8% of the population aged 12 and over, but are charged in 23% of all Criminal Code incidents where an offender was identified (CCJS, 1997b). Of the 117,773 youths aged 12-17 years charged with Criminal Code offences in 1996, 19% were charged with violent crimes. This rate is 9% higher than five years ago and 121% higher than in 1986 (CCJS, 1996).

**Stability of Youth Aggression**

Evidence for the stability of youth aggression is seen in a 1995 Calgary study which revealed that even though persistent offenders represented only 3.2% of the total number of young offenders, they were involved in 14.1% of the criminal occurrences (Canadian Research Institute for Law and the Family, 1995). An even more startling figure was produced by a longitudinal study of 10,000 boys born in Philadelphia in 1945 found that less than 7% of the sample were responsible for nearly 70% of all crimes attributed to the 10,000 (U.S. Department of Justice, 1985).

In Canada in 1995-96, 40% of the cases referred to the youth court involved reoffenders. Persistent offenders accounted for 10% of the caseload with a conviction. As young offenders move toward persistent re-offending, the number of charges per case increased (CCJS, 1996b). In 1994-95, 40% of youth court cases ending in a conviction (i.e., 29,178 out of 72,945) involved repeat offenders. About one quarter of these youths had previously been convicted of a federal statute offence on three or more occasions (CCJS, 1997c).
Outcomes of Youth Violence

The use of remand (sending a youth back into custody while he awaits trial or further investigation) is an important aspect of the administration of youth custody and requires considerable resources. Remand accounts for about 9% of the average daily count of young offenders in custody, and in some jurisdictions is as high as 18% (CCJS, 1997 c). Two-thirds of all youth cases involving a violent crime result in conviction. The most common disposition for these young offenders is probation (63%); 34% are sentenced to custody; and a very small proportion are fined (3%). Over half of the probation orders are for seven to twelve months (56%). Custodial sentences are equally divided between open and secure facilities. Most custodial terms handed out are for three months or less (62%); the vast majority are for a period of six months or less (83%). Custodial terms of more than a year are rare (5%) (CCJS, 1997 d). The cost of maintaining a youth in custody for one year is approximately $100,000. In 1994-95 federal/provincial spending on youth custody and community services is estimated to have been $526 million (CCJS 1997 e).

The social and economic costs of school violence have reached alarming proportions over the last two decades. Each year, Canadians pay billions of dollars for policing, private security, courts, corrections, insurance, and additional health and education costs due to antisocial behaviour in youth. Governments, the private sector, communities, and individuals must work together to reduce the present levels of violence and crime. More importantly, however, human resource and social development issues must be optimized as preventive strategy. While the justice system is necessary to hold
offenders accountable for their actions, it is only part of the solution to antisocial behaviour. A better solution is to work towards prevention of violence and aggression, both in the home and in the schools.

**Violence in Schools**

Twenty percent of students have reported that threats involving a weapon and/or threats of assault in school represent a major problem for them. Exposure to potential or actual violence generates a sense of fear and leads to acts intended to reduce or control fear. It may produce any combination of the following: generalized emotional distress; disruptions in interpersonal relationships; problems with aggression, conduct disorder, and truancy; cognitive and psychological issues related to learning and teaching; and physical symptoms. The effects of exposure to violence in schools may spread to others within the school setting. This spread, or contagion, changes the school setting in ways that negatively alter school interactions and interfere with educational and social goals. Widespread concern about violence within a school may reduce the quality of teaching, disrupt classroom discipline, limit teachers' availability to students before or after the school day, and reduce students' motivation to attend school and/or willingness to participate in extracurricular activities (Lorion, 1998).

A U.S. national survey in 1991 found that 28% of public high school teachers were verbally abused, 15% threatened with injury, and 3% were physically attacked by a student. Student assaults on other students are, however, the most frequent type of violence reported in schools. In recent years, weapon carrying by students in schools has
become a growing source of violence and threat of violence. A 1995 study by the Center for Disease Control and Prevention found that nearly one-fourth of students nationwide had carried a weapon to school during the month preceding the survey. Research indicates that typical school fights are about retaliation, rules of games, and possession of toys, equipment and/or territory. Children's physical aggression in schools is important not only because of the harm it inflicts, but also because it has long term consequences for settings beyond the school.

**Purpose of the Research**

The primary goal of the research is to help increase knowledge of developmental processes and influences which predispose children to antisocial behaviour. Its ultimate goal is to prevent a range of negative outcomes known to be associated with aggression and violence in youth. The literature will be reviewed to determine if specific factors, pathways or processes in the development of antisocial behaviour can actually be delineated. It is hoped that this paper will help clarify a complex and multifaceted subject thus aiding further research and particularly preventive intervention on behalf of antisocial and violent youth.

**Scope and Delimitations of the Research**

This study will review literature in the area of the development and prevention of antisocial behaviour in youth. The term “youth” refers to children up to the age of 18 years. A biopsychosocial interdisciplinary approach will frame the investigation. The
research does not so much involve an analysis of the outcomes of antisocial behaviour, although these are lightly addressed to put perspective in place, but rather a survey of factors which predispose children to its development.

**Theoretical Framework and Methodology**

Antisocial behaviour is first indicated when children show behavioural evidence of aggression, oppositional defiance, severe tantrumming, and victimization of other children or animals. The research will define related DSM IV (Diagnostic and Statistical Manual, Version IV) disorders: Oppositional Defiant Disorder (ODD), Conduct Disorder (CD) and Attention Deficit Hyperactive Disorder (ADHD) which is indirectly related to ODD and CD. There tends to be a great deal of comorbidity; i.e., the same child may have two or more of these disorders and some children may develop one disorder after another, thus experiencing all three disorders as they grow from childhood to adolescence. Child abuse will also be investigated because it has been established that maltreatment of children by caregivers causes aggression in children. Other known causes of the disorders, such as genetic factors, will be reviewed, as will family system dynamics and socio-economic issues (i.e., child poverty) in an attempt to determine their particular impact, if any, in the development of antisocial behaviour.

Empirical evidence for both situational variables and dispositional variables will be gathered. The findings will be organized according to a biopsychosocial format, proceeding from genetic to psychological to sociological variables. The research will advance from particularistic influences toward more universalistic influences. Aggression
will be first examined as a foundational element in antisocial behaviour. The investigation will utilize an inductive approach and an inquiry model patterned after one proposed by Cruikshank (1984). The data will be organized into a conceptual model of predisposing factors following Bean and Metzner (1985).

Particularly in cases where there are multiple interdependent variables, a systems approach often offers the best chance of describing the reality. The boundaries in the categories listed above are, therefore, ultimately arbitrary. They serve a purpose for the moment, but should not limit what else might be achieved with a different organizational framework in the future. Throughout this study, I will focus on empirical data and scientific evidence.

**Philosophical Perspective**

Philosophically, there is growing recognition that disorders such as antisocial behaviour do not have a single cause that can be knocked out by a magic bullet. Each manifestation appears to be the result of a host of “co-factors” existing in unique combinations of feedback for different individuals and families. Poverty, violence in the home, maternal depression, paternal involvement in crime, learning difficulties - all of these interact. The “cure” for antisocial behaviour is likely more dependent on addressing the whole problem, rather than piecemeal aspects of it. There is a fairly clear need for increased knowledge and understanding of the developmental process and key issues which feed into antisocial behaviour. There is also abundant evidence that early
intervention and prevention is by far the most effective and hopeful way of dealing with its many difficult outcomes.

Envisioning the issues as merely "mechanical" problems to be solved may bring temporary relief of symptoms. Ultimately, however, it is wise to be mindful that in a systems view of things, we (i.e. all of us) are in a myriad of ways interconnected. Our traditional mind set has focused on social, political and ecological problems as lying outside ourselves. A systems perspective teaches us that we are always part of the problems and that particular tensions and dislocations always unfold from the entire system rather than from some "defective" part.

If antisocial behaviour or attention deficit hyperactive disorder is on the rise in our population, should we not ultimately look closely at the society in which this epidemic occurs? The issues and challenges that we will face in the future are perking in the environment today, and it is crucial to find ways to see and organize that information now. Then we will have the ability to respond to and influence what is emerging. The environment, as we know, is created and continuously reshaped by a vast network of connections, relationships and patterns of interactions. This creates more potential than initially might be expected. Sanders (1998) comments:

In nonlinear dynamical systems, the variables cannot be taken apart and added back together again like a child's building blocks; A+B does not equal C. In these types of systems, things never happen the same way twice. A small change in one variable will create changes in another and another, because the variables are interacting constantly and changing in response to each other.
...nonlinear dynamical systems are teeming with creative potential and sensitivity to new influences. This sensitivity to new influences means that changes can be introduced at almost any point. *In other words, the possibilities for creativity, innovation and change are infinite* (my italics).

**Research Questions**

The complexity of this work derives from the presence of numerous interactive variables and their feedback loops which produce a large numbers of variations over time. The analysis is undertaken to help organize and clarify the relationship of a multiplicity of variables which are known to contribute to the development of antisocial behaviour. Adding to the complexity is the fact that antisocial behaviour is not a single element, but a confluence of various components, any of which may be more in evidence than others at a given point in time. The following research questions will serve to guide the inquiry:

- What are the key variables which emerge as influences in the development of antisocial behaviour in youth?
- Can the combination of variables in any of the three categories: 1) genetic, psychological and neurological factors, 2) familial factors and the home environment, 3) social factors, the school and the community psychological show sufficient coherence and impact such that they could be viewed as developmental pathways to antisocial behaviour?
- Are there variables which prevent the development of antisocial behaviour and is it possible at any point to reverse the course through intervention?
Definition of Terms

Abridged definitions are presented here. More comprehensive descriptions of these various disorders and their symptoms such as those in the Diagnostic and Statistical Manual, fourth revision (DSM IV) are included in the literature review.

Antisocial Personality:

Onset before age 15 (DSM III) as evidenced by truancy, expulsion from school, delinquency, running away, persistent lying, casual or promiscuous sexual intercourse, substance abuse, vandalism, fighting, etc. and continuing social difficulties after age 18; e.g., inconsistent or unsustained work or academic records, irresponsibility as a parent, conflict with law or multiple arrests, impulsivity, recklessness (Campbell, 1989).

Antisocial Personality Disorder:

There is a pervasive pattern of disregard for, and violations of, the rights of others occurring since age 15 years as indicated by three (or more) of the following: failure to conform to social norms with respect of lawful behaviours, deceitfulness, impulsivity, irritability and aggressiveness, reckless disregard for safety of self or others, consistent irresponsibility, lack of remorse. The individual is at least 18 years, there is evidence of conduct disorder, and the occurrence of antisocial behaviour is not exclusively during the course of schizophrenia or a manic episode (DSM IV, 1997).
Attention Deficit Hyperactivity Disorder (ADHD):

A syndrome consisting of 1) inattention, 2) excessive motor activity, and 3) impulsivity. Hyperactivity is manifested in restlessness and poorly organized excess activity that is haphazard, inconsistent and lacking in clear goal orientation. The child fidgets, is always “on the go” or “running like a motor,” and has difficulty sitting still. He frequently disrupts others at play and at work. Inattention is manifested in easy distractibility, forgetfulness, and the inability to sustain attention in tasks. Other ADHD-related symptoms include specific learning deficits such as dyslexia; perceptual motor deficits; defective coordination, lack of response to discipline, and antisocial behavior, especially in adolescence; interpersonal relationships marred by obstinacy, stubbornness, negativism, bullying, emotional lability, low frustration tolerance; temper outburst.

Etiology is unknown, but a strong genetic component is present (Campbell, 1989).

Child Abuse:

Child abuse occurs when a parent, guardian or caregiver mistreats or neglects a child, resulting in injury, or significant emotional or psychological harm, or serious risk of harm to the child. Child abuse entails the betrayal of a caregiver's position of trust and authority over a child. It can take many different forms.

Emotional abuse involves an attack on a child's sense of self. Emotional abuse is usually found in the context of a long-term problem in a parent's treatment of a child. It is often part of a pattern of family stress and dysfunctional parenting. Emotional abuse frequently co-exists with other types of abuse. It is manifested as constantly insulting,
humiliating or rejecting a child, or saying that a child is stupid or bad. It seriously harms a child's sense of worth and self-confidence. Other forms of emotionally abusive treatment include forcing a child into social isolation, intimidating, exploiting, terrorizing or routinely making unreasonable demands on a child. Some experts include exposure of a child to violence between the parents as a form of emotional abuse.

*Physical abuse* is the deliberate application of force to any part of a child's body, which results or may result in a non-accidental injury. It may involve hitting a child a single time, or it may involve a pattern of incidents. Physical abuse also includes behaviour such as shaking, choking, biting, kicking, burning or poisoning a child, holding a child under water, or any other harmful or dangerous use of force or restraint. Child physical abuse is usually connected to physical punishment or is confused with child discipline. There are obvious dangers to the child's life and adequate physical and emotional well being. In addition, cruelty and abuse may predispose to delinquency and violence.

The parents of abused children show as wide a variation in character and personality makeup as do people in general; a small percentage of them can be classified as borderline psychotic, while only a few are overtly psychotic. Many, however, have poor self-esteem and lack of self-confidence. Parents themselves often have a past history of abuse within their own families, and a lack of empathy with their child's needs. Such individuals often experience problem drinking, repeated job loss, unwanted and early pregnancies, unrealistic expectations of their children, and an inability to maintain children on various behaviour and school schedules.
The effects of child abuse are profound. Abuse has lasting effects on children's social adjustment and success in life. Outcomes for physical and emotional abuse include aggression, delinquency and interpersonal problems. Abused children suffer the risk of becoming violent as adults; they are also more likely to suffer from depression, low self-esteem and suicidal thoughts (Coltoff & Luks, 1978).

**Child Neglect**

Neglect occurs when a child's parents or other caregivers are not providing essential requisites to a child's emotional, psychological and physical development. *Physical neglect* occurs when a child's needs for food, clothing, shelter, cleanliness, medical care and protection from harm are not adequately met. *Emotional neglect* occurs when a child's need to feel loved, wanted, safe and worthy is not met. It can occur in the context of the abuser simply being unavailable, or it can manifest as open rejection of the child. While a case of physical assault is more likely to come to the attention of public authorities, neglect can represent an equally serious risk to a child. Among the deleterious effects of neglect are increased risk for suicide, lowered IQ, depression, anxiety, post-traumatic stress disorder, delinquency and later adult criminal behavior, drug and alcohol abuse, and a greater likelihood of growing up to repeat the cycle of negative behaviors as a parent. Child neglect can also interfere with normal social, cognitive, and affective development, including the development of language, social relationships, and academic skills (Third National Incidence Study of Child Abuse and Neglect, 1996).
Physical neglect include malnutrition, low birth weight, repeated pica (compulsive eating of non-nutritive substances for at least one month - may be associated with iron deficiency), constant fatigue, poor hygiene, persistence of treatable medical conditions, lack of immunizations and appropriate medications, absence of dental care, absence of necessary prostheses such as eyeglasses and hearing aids, preventable injuries (e.g., craniofacial injuries resulting from failure to wear protective headgear during sports), and delays in physical, language, and cognitive development. Educational neglect may be manifest as ignored or permitted truancy, failure to enroll children in school, failure to obtain recommended remedial or special education services. Emotional neglect is reflected in inadequate nurturance and affection, exposure to family violence, permitted abuse of drugs or alcohol, or refusal of psychological care. Intervention may be particularly difficult in the vast majority of the cases where neglect is chronic and insidious.

Comorbidity:

Occurrence or existence of more than one disorder at the same time in the same subject. ADHD is often comorbid with ODD.

Conduct Disorder (CD):

A group of childhood disturbances consisting of repetitive and persistent antisocial activities that violate the rights of others and are clearly beyond the usual pranks of childhood. A repetitive and persistent pattern of behaviour which is marked by
aggression to people or animals, deceitfulness or theft, and serious violations of societal norms and rules. The most typical symptoms are stealing, running away from home, lying, fire setting, truancy, breaking into someone else's house, destruction of others' property, physical cruelty to animals or people, forcing another into sexual activity, using a weapon in a fight and initiating fights (Campbell, 1989).

**Oppositional Defiant Disorder (ODD):**

Often manifests in severe behaviour such as intense temper outbursts, noncompliance, sudden mood swings, verbal and physical aggression, marked inflexibility, and low frustration tolerance. Classified within the disruptive behaviour disorders: a childhood disorder consisting of pervasive disobedience, negativism, and provocative opposition to authority figures (e.g. repetitive tantrums, argumentativeness, stubbornness). Unlike conduct disorder, behaviour is not primarily an invasion of the rights of others (Campbell, 1989).

**Post-Traumatic Stress Disorder:**

This arises as a delayed and/or protracted response to a stressful event or situation (either short-or long-lasting) of an exceptionally threatening or catastrophic nature, which is likely to cause pervasive distress in almost anyone (e.g. natural or man-made disaster, combat, serious accident, witnessing the violent death of others, or being the victim of torture, terrorism, rape, or other crime). Typical symptoms include episodes of repeated reliving of the trauma in intrusive memories ("flashbacks") or dreams, occurring against
the persisting background of a sense of "numbness" and emotional blunting, detachment from other people, unresponsiveness to surroundings, anhedonia (absence of any pleasure in normally pleasurable things), and avoidance of activities and situations reminiscent of the trauma. Commonly there is fear and avoidance of cues that remind the sufferer of the original trauma. Rarely, there may be dramatic, acute bursts of fear, panic or aggression, triggered by stimuli arousing a sudden recollection and/or re-enactment of the trauma or of the original reaction to it.

There is usually a state of autonomic hyperarousal with hypervigilance, an enhanced startle reaction, and insomnia. Anxiety and depression are commonly associated with the above symptoms and signs, and suicidal ideation is not infrequent. Excessive use of alcohol or drugs may be a complicating factor. The onset follows the trauma with a latency period which may range from a few weeks to months (but rarely exceeds 6 months). The course is fluctuating but recovery can be expected in the majority of cases. In a small proportion of patients the condition may show a chronic course over many years and a transition to an enduring personality change (DSM IV).

**Sexual abuse:**

Child sexual abuse occurs when a child is used for sexual purposes by an adult or adolescent. It involves exposing a child to any sexual activity or behaviour. Sexual abuse most often involves fondling and may include inviting a child to touch or be touched sexually. Other forms of sexual abuse include sexual intercourse, juvenile prostitution and sexual exploitation through pornography. Sexual abuse is inherently abusive
emotionally and is often accompanied by separate and more direct forms of psychological abuse or other forms of mistreatment. Includes incest, rape and sexual relations between adults and children (Third National Incidence Study of Child Abuse and Neglect, 1996).

Historically, it has been difficult to estimate the extent of neglect since the literature is plagued by the tendency to aggregate physical abuse, sexual abuse, and neglect into a single category of child maltreatment. However, The Child Maltreatment Reports of the States to the National Child Abuse and Neglect Data System (1996) indicated that 55% of the nearly one million documented cases of child maltreatment that year were cases of some form of neglect. It was noted also that this incidence figure is likely to be a significant underestimate. Other evidence suggests that less than half of recognized cases of maltreatment are actually reported to child protective services, and less than 20% of these cases are taken to court.

Conclusion

This research is designed to serve a number of practical purposes by helping to define the processes by which antisocial behaviour develops. It is offered to decision makers and planners who help set priorities in the area of child care and family health and well being, and to educators who also impact greatly on the lives of young people. It is hoped that the information gleaned will raise awareness of the plight of children whose lives are marked by antisocial behaviour influences such as poverty, abuse and other difficulties and disorders. Community support and concerted action on behalf of high-risk children could help to save a great deal of suffering as well as financial and social
cost. In Canada, this figure is $46 billion annually and in the United States, the comparative figure is $425 billion annually (National Crime Prevention Centre, 1998, Illinois Centre for Violence Prevention, 1998).

The next chapter deals with aggression as a foundational variable connected with antisocial behaviour. I review definitions of aggression, aggression typologies, progression in aggressive behaviours, outcomes of aggression in terms of conduct disorder, and risk and protective factors for aggression.
CHAPTER TWO: AGGRESSION

Introduction

This chapter reviews research on aggression, its typologies, manifestations, stability, and risk/protective factors. The discussion of aggression serves as a foundation for subsequent exploration of factors which influence the development of antisocial behaviour. Chapter three examines genetic, psychological and neurological factors known to contribute to the development of antisocial behaviour. Chapter four investigates potential contributing factors in the family and the home environment. Chapter five reviews the literature on school and community variables which are correlated with the development of antisocial behaviour. Chapter six provides a conclusion.

Children exhibiting early aggressive tendencies such as oppositional defiant disorder (ODD) and conduct disorder (CD) form three-fourths of all referrals to mental health clinics. Shamsie (1994) contends that these children need special attention - first, because they represent the largest group of children requiring treatment and second, because if untreated, their problems are likely to continue into adulthood.

Aggression Defined

Aggression is variously defined, and Campbell (1989) notes that “writers often fail to indicate which of the more than 200 definitions of aggression are included in their use of the term. Most agree, however, that an essential element is the intention to harm another, either physically or psychologically, and aggression is thereby differentiated from
assertiveness, mastery, etc.” While this definition is quite simple, the discussion that follows provides an indication of the complexity of the problem, its tie-in with violence and juvenile offending, and challenges in terms of intervention and prevention.

Infant Temperament and the Development of Aggressive Behaviours

Teerikangas et al. (1998) conducted a longitudinal study on 100 children with first assessment at 6 months of age and follow-up assessments at 14 to 15 years. The early assessment, via the Carey Infant Temperament Questionnaire, included two components: 1) fussiness and crying and 2) demanding behaviour; i.e. need for constant attention due to the inability to entertain oneself. The later follow-up consisted of an assessment via the Child Behaviour Checklist and the Youth Self-Report. Fifty-four children received family counselling during the five 5 years of the child’s life (10 times/year), and 46 children served as a control group for counselling. It was found that difficult temperament, when combined with dysfunctional parental behaviour can lead to disorders in adolescence. The family counselling program during infancy protected the children from developing psychiatric symptoms in adolescence. It allowed the parents to identify the profile of their child’s temperament, to accept it and to carefully monitor their own behaviours, thus creating a “goodness of fit.” The authors concluded that home-based interventions which focus on parent-child interaction may improve the prognosis of children at temperamental risk.
Sanson et al. (1993) also examined infant temperament of children diagnosed and placed into three categories at 8 years of age: a) hyperactive-only b) aggressive-only, and c) hyperactive-aggressive.

These investigators maintain that temperament is a characteristic determined at infancy and described characteristics of difficult temperament as follows: "highly active, irritable, intense, colicky, and more likely to act out, rather than withdraw in response to stress." They noted that following established theory, aggressive-only and aggressive-hyperactive children exhibit more difficult behaviour from infancy than hyperactive-only and "normal" children.

Their investigation used existing data on 252 children and followed them from the age of approximately 4 months to 8 years. Compared to a control group, results indicated a link with early temperament and more difficult outcomes for the three groups:

• The hyperactive and aggressive group had exhibited more temperament and behaviour difficulties in infancy than the other children. They were more inflexible than hyperactive-only children, and received more negative ratings on school related skills.

• The aggressive-only group had been more irritable, less cooperative, and less manageable as infants than hyperactive-only children. They had also been perceived more negatively by their parents. These children had been similar in temperament to the hyperactive-aggressive children.

• Until approximately 4 years of age, hyperactive-only children and the control group had similar levels of hyperactivity. After age 4, the hyperactive children
became more hyperactive than the control group.

- All three groups performed more poorly in school than the control group.

These investigations reinforce the results of previous studies which have underlined the importance of identifying temperamentally-difficult babies and ensuring that parents have resources and support available. Parent-child interaction which is marked by coercion and control contributes to the development of aggressive behaviour. Early aggression and hyperactivity are correlated with negative ratings by parents and negative ratings by schools. Negative ratings often imply knotty interactional processes which contribute to a vicious cycle. Poor outcomes can be offset by educational processes which increase understanding of the difficulties. Parents especially, but teachers as well, benefit from a full understanding of the problems the child exhibit and specific helpful strategy. Both difficult temperament and hyperactivity have strong genetic components so early identification and appropriate intervention can be markedly helpful in preventing poor outcomes such as the development of antisocial behaviour.

Earlier work on family and home influences by Eron (1987) showed similar results. This investigation followed 600 children from the age of 8 to 30 years using a peer-nominated index to measure aggressive behaviour and its correlates. Aggression in this study was defined as "an act that injures or irritates another person." Results were tabulated for factors which increased aggression and the effects of parental punishment.

The findings showed that aggression in school was increased by:

- less nurturing parents at home
• more punishment for aggression at home
• less identification of the child with either parent.

One of the strongest correlations with aggressiveness at age 18, was the child's preference for television programs depicting aggression at the age of 8. It was pointed out that this relationship is bi-directional:
• aggressive children prefer violence on television
• and this, in turn, makes them more aggressive.

Concerning the effect of parental punishment, the findings revealed that:
• parental punishment was only effective with children who identified themselves highly with either parent.
• for children who did not identify with their parents, punishment worsened their aggressive behaviour.

The crucial factor determining the effect of punishment was identified as the perception of the child.
• If the child perceived the punishment as a consequence of his or her behaviour, then the punishment could have a desired effect.
• If the child perceived that the punishment was being administered by the parent as the most convenient way to solve an interpersonal problem, then the child might adopt the aggressive behaviour of the punishing parent.

This series of studies sheds light on the importance of early parent-child interaction. The three critical factors involved are nurturing, punishment and identification of the child
with the parent. Difficulties in these areas contribute to the development of aggression. There is a growing body of evidence which suggests that early aggressive behaviour is linked with later delinquent activities. The following study looks at these relationships.

**Early Aggressive Behaviour and Serious Crime in Adulthood**

Statton & Magnusson (1989) followed a sample of 1000 children (517 boys and 510 girls) from age 10 to 26 years to examine the relationship between early aggressive behaviour and later delinquent activities. Children were either classified as "low risk" or "high risk" with two teacher ratings at 10 years old and 13 years old. Official records were used to list offences for each participant until age 26. These offences were categorized into broad categories of crime, and coded according to their seriousness:

- Mild offences included petty theft, trespassing, and false alarm.
- Serious offences included assault, theft, robbery, fraud, and perjury.

The results were tabulated as follows:

**Frequency and seriousness of crime**

- Over one-third of the higher risk boys had several registered offences by age 26.
- Those who were rated at initial higher risk had committed more serious offences.
- Almost half the boys with the most extreme aggressiveness score at age 10, had been involved in at least one serious offence by age 26, thus supporting the link between early aggression and later serious crime.
- Among female participants, only a minority who were rated among the most aggressive at age 10, were at risk for later crime.
- Half of these high-risk girls committed at least one crime by age 26 and these girls were much more likely to be repeat offenders.

- Aggressive behaviour among girls at age 13, compared with aggressive behaviour at age 10, was more strongly associated with later crime. Almost all of the female participants who committed four or more offences were among the higher risk group at age 13.

**Risk classification and later crime**

- Twice as many boys at higher risk, compared to those at lower risk, had a criminal record by the age of 26 years.

- More than one-third of the higher risk male participants had registered crimes by the age of 26, compared to about one-eighth of those in the lower risk group.

- Four times as many girls among the higher risk female participants at age 13, than among the lower risk participants, had official records of crime by age 26.

**Character of crime and patterns of offending**

- For both boys and girls, high aggressiveness at an early age was most closely related to violent offences against persons and property damage, and least related with drug offences, crimes for personal gain, and traffic offences.

- Participants who were rated higher in aggressiveness at an early age, showed a diversified offence pattern, while those rated as less aggressive had a less diverse offence pattern.

Among other things, this study demonstrates the importance of heeding aggressive behaviour in early childhood. Early aggression appears to be strongly correlated with later
persistent serious criminal behaviour. Close to 50% of boys identified as extremely aggressive by teachers at age 10 had registered a serious offence at age 26. Higher ratings of early aggression are linked with a more diverse and more serious pattern of later offending. Early diagnostic findings, therefore, should be combined with preventive strategies to reduce poor outcomes.

This study revealed that for girls, aggressive behaviour at age 13 compared with aggressive behaviour at age 10, was more strongly associated with later crime. Most of the females who had been charged with four or more offences by age 26, had been among the higher risk group at age 13. Following is a study which identifies relational aggression in girls and its correlation with social and psychological maladjustment.

Relational Aggression

Crick, Cases, & Mosher (1997) distinguished between two types of aggression--relational (covert) and physical (overt)--in an effort to identify children at risk for developmental difficulties. They noted that studies on aggression have tended to focus on actions that harm others through physical damage or threat (e.g., pushing, hitting, kicking, or threatening to beat up a peer), behaviours which tend to be more common among boys. In contrast, relational aggression--which harms others through damage to their peer relationships (e.g., social exclusion or rumour-spreading as a form of retaliation)-- has been shown to be relatively more characteristic of girls. Research has provided evidence that relationally aggressive behaviours are highly damaging to children. Those children who are frequent targets of relational aggression may experience emotional difficulties. This
investigation indicated, however, that those who perpetrate relationally aggressive acts also have emotional problems. It was found that relationally-aggressive children were more socially and emotionally maladjusted than their non-relationally aggressive peers. Further, they reported significantly higher levels of loneliness, depression and also saw themselves more negatively.

Results of this study provide evidence that relationally aggressive behaviours appear in children as young as age three or five years and that relational aggression is associated with social-psychological maladjustment for preschool-age children. Early assessment of relational aggression may, therefore, be important in detecting children's adjustment difficulties.

As is known, adjustment difficulties may be exacerbated considerably by socio-economic disadvantage. This factor, combined with early tendencies toward aggression, is shown to have resulted in poor outcomes in the following longitudinal study.

Aggression - Stability and Consequences

Haapasalo & Tremblay, (1994) and Tremblay, Pihl & Dobkin (1994) reported on the development of a high-risk sample of boys living in disadvantaged areas of Montreal. Their purpose was to map the development of aggression and antisocial behaviour from kindergarten onward, and to develop an effective program that would prevent at-risk children from becoming delinquent during adolescence. They surveyed kindergarten teachers working in impoverished areas of Montreal, evaluating five types of behaviour: 1) aggressive, 2) hyperactive, 3) inattentive, 4) anxious, and 5) pro-social behaviour in
young male pupils. Controlling for ethnic factors resulted in a sample of 1037 boys with Canadian-born, French speaking parents.

Annual assessments of the boys from 10 to 16 years of age were conducted and the following important differences between aggressive kindergarten boys and their peers were found:

- Aggressive boys tended to be more hyperactive, inattentive, anxious, and less altruistic than non-aggressive boys.

- Close to 50% of the aggressive boys did not live with their natural parents, an indication of marital turbulence.

- The mothers of these boys were, on average, two years younger than mothers of non-aggressive boys.

- Parents of the aggressive boys were less educated and had lower paying jobs than other parents in the sample.

In measurements of the stability and consequences of aggression between ages 6 and 12, the researchers observed five different developmental outcomes between kindergarten and the end of elementary school from the teacher ratings:
Table 1.

Measurements of aggression from kindergarten to end of elementary school

<table>
<thead>
<tr>
<th></th>
<th>18%</th>
<th>extremely aggressive stable-aggressive</th>
<th>from K - end of elementary school</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>10%</td>
<td>extremely aggressive</td>
<td>last 3 years of elementary school only</td>
</tr>
<tr>
<td>3</td>
<td>13%</td>
<td>serious aggression</td>
<td>only in kindergarten</td>
</tr>
<tr>
<td>4</td>
<td>16%</td>
<td>serious aggregation</td>
<td>off and on</td>
</tr>
<tr>
<td>5</td>
<td>52%</td>
<td>non-violent</td>
<td>throughout the elementary school years</td>
</tr>
</tbody>
</table>

The academic performance of these boys indicated the following:

- 30% of the boys who never exhibited violent behaviour (group 5) were placed outside of an age-appropriate classroom at age 15
- 50% of the stable-aggressive boys (group 1) were placed outside of an age-appropriate regular classroom at age 10
- over 80% were not in an age-appropriate classroom at age 15
- over 50% of the other three groups of boys (groups 2, 3, and 4) were not in age-appropriate classroom at age 15

The continuity of aggressive behaviours is illustrated by the following statistics:

- 3% of non-aggressive boys were delinquent during pre-adolescence (10-14)
- 20% of stable-aggressive boys were delinquent during pre-adolescence
- 12% of boys in the other three groups were delinquent during pre-adolescence
The authors note that the high rate of academic failure is likely associated with the fact that the entire sample of boys lived in impoverished conditions. These are stark statistics that merit consideration in their own right. At the very least, they illustrate the strongly deleterious effects of economic marginalization.

The findings concerning the continuity of aggressive behaviour showed that early aggressive tendencies translated 20% of the time into delinquency during pre-adolescence. The authors recommend that preventative strategies with aggressive boys should take place during the preschool or early elementary school period. Echoing others, (Kazdin, 1987; Feehan, McGee, Williams, et al, 1995; Rey, Mirris-Yates, Singh, et al, 1995; Ferdinand, Verhulst, & Wiznitzer, 1995), they conclude that as antisocial behaviour tends to crystalize during the middle of elementary school, it is important to intervene early with strategies directed to family, child and school. Several note that the success of interventions after eight or nine years of age is lessened.

The following study shows that the development of aggression tend to take place in an orderly sequential format.

**Developmental Pathways**

Loeber et al. (1993, 1994, 1995) have mapped three developmental pathways toward serious delinquency in an investigation of the developmental ordering of boys with behaviour problems of the Pittsburgh Youth Study.
Table 2.

Developmental pathways (Step 1 to Step 3) for serious violent juvenile offending.

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Overt Pathway</em> - behaviours that are</td>
<td>minor aggression first (bullying and</td>
<td>physical fighting (including gang</td>
<td>violence (robbery, rape, and</td>
</tr>
<tr>
<td>harmful to others</td>
<td>annoying others)</td>
<td>fighting)</td>
<td>aggravated assault)</td>
</tr>
<tr>
<td><em>Covert Pathway</em> - behaviours that result in</td>
<td>minor covert behaviours (frequent lying,</td>
<td>property damage (fire setting, vandalism)</td>
<td>moderate to serious forms of delinquency</td>
</tr>
<tr>
<td>property loss</td>
<td>shoplifting)</td>
<td></td>
<td>(burglary, car theft, fraud, drug dealing)</td>
</tr>
<tr>
<td><em>Early Authority Conflict Pathway</em></td>
<td>stubborn behaviour</td>
<td>defiance and disobedience</td>
<td>authority avoidance before age 12 (truancy,</td>
</tr>
<tr>
<td>- behaviours in conflict with, or</td>
<td></td>
<td></td>
<td>staying out late at night, and running away</td>
</tr>
<tr>
<td>avoidance of, authority figures</td>
<td></td>
<td></td>
<td>from home).</td>
</tr>
</tbody>
</table>

The researchers found that boys who displayed behaviour characteristics of the last or third step in a pathway were likely to have progressed to that stage through steps one and two in a pathway. They noted, for example, with regard to the development of violence, that most boys had first engaged in minor aggression and then in physical fighting respectively.

They proposed that the development of delinquency takes place in an orderly
fashion, although there are differences in the degree to which boys penetrate a pathway. In this respect they distinguished between persisters and experimenters. Boys whose behaviour problems persisted for at least six months were more likely to follow the developmental order of a pathway than boys who were identified as experimenters (i.e. those who had no recurrence of specific behaviour problems). These findings were independent of ethnicity and replicated across three different age samples of boys.

When multiple pathways were involved, a group of chronic offenders with a high rate of offences emerged. Boys in the triple pathways, compared to boys in single or in dual pathways, had the highest rate of self-reported violent and nonviolent offences. Court records showed that almost 80% of the boys with a high rate of offences were among persisters who had advanced in steps 2 or 3 in one or more of the pathways while another 10% persisted in step 1.

The authors suggest that knowledge of developmental pathways allows the determination of intervention processes. They recommend that boys with behaviours characteristic of the first step in any of three pathways be assessed each half-year in order to monitor the persistence of the problems and prevent escalation to more serious behaviour problems. Important target behaviours recommended for early intervention were physical aggression, frequent lying, and chronic disobedience.

It would appear from the following study that without intervention, aggression becomes stabilized to the extent that it carries on through generations with marked
similarity in the repetition of patterns.

**Stability of Aggression Through Generations**

Haussmann et al. (1984) examined aggressiveness over a twenty-two year period, spanning three generations, with data collected from over 600 participants. Participants were first interviewed at age 8, along with their parents; and then again at age 30, along with their children.

At the age of 8, the aggression in children was assessed with peer ratings, while their parents' aggression was derived by measuring the severity of punishment they would use in response to specific misdeeds by the participant. At age 30, self-ratings, spousal ratings, and citations of offences were used as indicators. Also at this time, participants' children reported on how severely their parents punished them for specific misdeeds, and completed self-ratings of aggressive behaviour.

Results showed that the stability of aggression across generations and within a family, when measured at comparable ages, was even greater than the stability of aggression in an individual at different ages. Further, the pattern of stability in aggression within participants' own life spans was similar to the pattern of stability across generations. Age was an important factor. Participants at age 8 had similar levels of aggression to their children 22 years later and participants at age 30 had similar levels of aggression to their parents 22 years earlier.

The authors report that in terms of individuals, over a 22 year period, “early aggression was a reliable predictor of later aggression within an individual.” This was
especially true for males. There was a strong correlation between aggression at age 8, and later driving and criminal offenses among participants. Those who were more aggressive at the beginning of the study, were more aggressive at the end of the study. Haussmann and his colleagues showed that aggression level was transmitted across generations (more aggressive parents had more aggressive children). The researchers concluded that once the style of aggressive response becomes characteristic in the individual, whatever its causes, it remains remarkably stable across time, situation, and even generations within a family.

It has been seen from the research studies examined thus far that aggression takes many forms and there are numerous associated variables. A further elaboration on the different categories of aggression is provided below.

**Aggression - Typologies**

Bassarath (1999) points out that early attempts to categorize aggressive behaviours into discrete types proved nice in theory, but not always relevant to practice. Further, classification by type of crime has also proven somewhat difficult because most youth in the juvenile justice system engage in many different kinds of troublesome behaviours.

Dr. Bassarath, co-leader of the Aggression/Violence Program, Children's Service, at The Centre for Addiction and Mental Health, Clarke Division, Toronto notes that aggression is not any single thing - something that has been known intuitively by clinicians in the field but is now supported by the clinical data. More recent research has been helpful in delineating valid subtypes to enhance understanding of human aggression. This work allows clinicians to devise appropriate treatments for each type, an important contribution
for children and families.

**Aggression - Self-Directed Versus Other-Directed**

Vivona et al. (1995) collected data on 89 youngsters, 5-15 years of age, who were admitted to inpatient service over a 12-month period. It was found that compared with non-aggressive patients, aggressive patients were more likely to:

- be victims of abuse or neglect
- have a history of antisocial behaviour
- have lived in a foster home
- have had several primary caretakers

When the researchers attempted to differentiate between the factors associated with self-directed versus other-directed aggression, only one significant difference was found. Those who indulged in self-injury were more likely to have had more primary caretakers and to have had more disruption in caretaking.

**Verbal Versus Physical**

Bassarath (1999) observes that in terms of development, physical expression of needs by children tends to precede verbal attempts at communication. Frustrated or hungry infants are fine examples of this. Toddlers soon learn to add language to make their wishes known. If there is a continuation of physical aggression (such as hitting or pushing around) and early display of worrisome verbal aggression past the preschool years, it is recommended that the problem be addressed clinically.
Direct Versus Indirect

Research on relational aggression by Crick & Grotpeter (1995) characterized direct and indirect aggression. Direct aggression implies an open display of verbal and/or physical aggressive acts. Indirect aggression includes behaviours such as spreading rumours about a third party, and encouraging or inciting friends to ignore, isolate or ostracize an aggrieved peer. Also included as indirect aggression would be convincing or encouraging a friend to “get even” with the targeted person. There is evidence that girls tend to use these techniques more than boys.

Overt Versus Covert

Overt behaviour refers to arguing, fighting, and throwing temper tantrums; covert behaviour includes stealing, truancy and fire setting. Covert acts, on the other hand, are more controlled and goal-directed. Loeber & Schmaling (1985), reviewed 22 studies of boys and girls to come up with the overt-covert distinction. The overt-covert paradigm has distinguished that:

- Overt acts tend to be more impulsive and affective; i.e., accompanied by anger and fear
- Overt acts tend to be more obviously hostile and defiant
- Covert acts more secretive

The formulation of these distinctions has contributed to implications for treatment, particularly where impulsivity and anger are concerned.
Socialized Versus Under-Socialized

Socialized (or group type) aggressive behaviours connote youth who tend to be affiliated with a peer group such as a gang and who exhibit more covert activities. Interpersonal relationships tend to be fairly strong. Under-socialized (or solitary type aggressive) children tend to act more on their own and to be more overtly aggressive and violent (Hewitt & Jenkins, 1946; Jenkins & Glickman, 1947). While some have questioned whether this discreteness actually exists, Bassarath (1999) notes that under-socialized children tend to be more troubled emotionally and socially and may experience inferior outcomes over their more socialized counterparts.

Adolescent Limited Versus Life-Course Persistent

Moffit (1993) first developed this classification from the study of young offenders. Two types emerged: 1) the adolescent limited who started late and had a relatively shorter antisocial career and 2) the life-course persistent who began early and maintained a longer criminal career.

Bassareth (1999) notes that additional research more recently indicates that “adolescent limited group” in the 30s had difficulties with drug and alcohol use, fighting and criminal acts.

Reactive Versus Proactive

Reactive aggressive children perceive threat or provocation and respond with anger,
temper tantrums and vengeful hostility. Proactive aggressive children engage in behaviours such as bullying, teasing, name calling, domination, coercion for a reward (theft), and bullying. Reactive aggressive children tend to be disliked by peers and often attribute hostility to peers' intentions. Proactive aggressive children tended to expect positive outcomes and behaved with self-confidence, self-esteem and a sense of competency in being able to achieve their ends by aggressive means (Dodge, Lockman, Harnish, Bates, & Petit, 1997 cited by Bassarath, 1999).

**Impulsive-Affective Versus Controlled-Predatory**

Vitiello & Stoff (1997) identified and classified different types of aggression in childhood psychopathology. Two subtypes emerged: Impulsive-affective aggression and controlled-predatory aggression. Characteristics of both follow:

*Impulsive-affective aggression*

- typically explosive and uncontrolled
- often accompanied by anger or fear
- characterized by high levels of arousal
- self-directed at times
- cognitive distortion of the environmental circumstances

*Controlled-predatory aggression*

- usually goal-oriented (that is initiated by the individual in order to achieve a certain goal other than physical harm of the victim)
characterized by low levels of arousal

Distinguishing between different types of aggression may help to guide the diagnosis, management and treatment of aggressive youth. For impulsive-affective aggression, two approaches were recommended:

- pharmacological treatments - aimed at decreasing hostility, impulsivity, and arousal
- psycho-social treatments - aimed at reducing experiences that cause arousal such as physical exercise, loud noises, high temperatures, and watching violent movies or combative sports.

Since other environmental factors, such as isolation, abuse, overcrowding, and poor housing, can cause frustration and stress which result in high levels of arousal, minimizing or eliminating these stressors is also recommended.

It was suggested that youth with controlled-predatory aggression are more likely to respond to behavioural therapy, because they are sensitive to the results they achieve through their aggression, and are more likely to be capable of controlling their behaviour. This distinction between impulsive-affective and controlled predatory has therefore, proven quite useful clinically. Children with impulsive-affective aggression are likely to be out of control, angry, fearful, impulsive, highly aroused and explosive. The controlled predatory group, on the other hand, are more confident, goal oriented, emotionally cool and controlled.

Bassarath (1999) notes that children with attention deficit hyperactivity disorder and the impulsive-affective features generally need earlier intervention to prevent development
towards juvenile delinquency and adult legal, emotional and interpersonal problems.

Further, the impulsive aggressive group may share similar characteristics with the life-course persistent group.

**Precursors of Proactive Aggression**

Similar work by Dodge et al. (1997) detailed that chronically aggressive children could be classified as either primarily reactive-aggressive or primarily proactive-aggressive. Reactive aggression was characterized by expressions of anger, temper tantrums, and vengeful hostility. Proactive aggression included bullying, domination, teasing, name calling, and coercive acts.

The reactive-aggressive children had a history of physical abuse, an earlier age of onset, and were disliked by peers. The proactive-aggressive children had no history of abuse, were similar to non-aggressive children in their early life experiences, and tended to expect positive consequences from their aggressive behaviour.

The authors commented that the two groups could be differentiated by their developmental history, behavioural and psychiatric profiles, and their understanding and interpretation of social contacts and self worth. They postulated that proactively-aggressive youth may use violence because they expect positive rewards, whereas reactively-aggressive youth simply react to their environment or their interpretation of their environment.

As can be readily seen, these various types of aggression have different manifestations, different motivations, and different treatment implications.
Table 3.

Types of Aggression and Their Characteristics

<table>
<thead>
<tr>
<th>Typology</th>
<th>Manifestation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-directed versus Other-Directed</td>
<td>Aggressive children tend to have had poor and disrupted caregiving and nurturing. Those who indulged in self-injury are more likely to have had more primary caretakers and more disruption in their lives.</td>
</tr>
<tr>
<td>Relational Aggression:</td>
<td>Language-based aggression versus acting out behaviours. Both of these tend to set up cycles of negative consequences for perpetrators as well as hurting victims.</td>
</tr>
<tr>
<td>Verbal versus Physical</td>
<td>Direct versus Indirect</td>
</tr>
<tr>
<td>Direct versus Indirect</td>
<td>Direct aggression implies an open display of verbal or physical aggressive acts. Indirect aggression is more covert and includes spreading rumours, isolating or ostracizing an aggrieved peer, inciting others to act aggressively against others.</td>
</tr>
<tr>
<td>Overt versus Covert</td>
<td>Overt aggression refers to arguing, fighting, throwing temper tantrums - it tends to be more impulsive and affective. Covert aggression may involve things like stealing, truancy and fire setting. It tends to be controlled, directed and more secretive.</td>
</tr>
<tr>
<td>Socialized versus Under-socialized</td>
<td>Socialized (or group type) connotes affiliation with a peer or group or gang who exhibit more covert activities. Interpersonal relationships tend to be fairly strong. Under-socialized aggressive (or solitary type aggressive) children tend to act more on their own and to be more overtly aggressive and violent.</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Adolescent-Limited versus Life-Course Persistent</td>
<td>Adolescent limited aggression tends to start in the teens and result in a relatively short antisocial career. Life-course persistent aggression begins early in a child's life and is maintained in a long criminal career.</td>
</tr>
<tr>
<td>Reactive versus Proactive</td>
<td>Reactive children perceive threat or provocation and respond with anger, temper tantrums and vengeful hostility. Proactive aggressive children engage in behaviours such as bullying, teasing, name calling, domination, coercion, theft and bullying. Proactive aggressive children tend to expect positive outcomes. They behave with self-confidence, self-esteem and purposefulness.</td>
</tr>
<tr>
<td>Impulsive-Affective versus Controlled-Predatory</td>
<td>Impulsive-affective aggression is typically explosive, uncontrolled and often accompanied by anger or fear. It is characterized by high levels of arousal, and a cognitive distortion of environmental circumstances. It may be self-directed at times. Controlled-predatory aggression is a considered response that goal-oriented. It is characterized by low levels of arousal and emotional coolness.</td>
</tr>
</tbody>
</table>
In terms of degree of severity, as has been noted above, children with ADHD (attention deficit hyperactivity disorder) and impulsive-affective features generally need early intervention to prevent development of chronic antisocial behaviour. This group shares characteristics with the life-course persistent group.

**Aggression and Perceived Value**

Boldizar, Perry & Perry (1989) examined the degree to which aggressive and non-aggressive male and female children differed in the values they attached to outcomes of aggression. They hypothesized that aggressive children would place more value on the positive, self-serving consequences of aggression and less value on the negative, punishing consequences of aggression than would their non-aggressive peers. Moreover, they surmised that boys would place more value on the positive--and less value on the negative--consequences of aggression than would girls.

The following six outcomes (or consequences) of aggression were assessed:

*Positive:*
- tangible rewards
- control and mastery of a victim

*Negative:*
- suffering by the victim
- retaliation by the victim
- peer rejection
- negative self-evaluation
Based on peer ratings of their aggression, participants (83 boys and 82 girls in grades 3 to 6) were divided into two groups: an aggressive group and a non-aggressive group. They then completed a questionnaire designed to measure their responses to an act of aggression. The children were asked to rate how concerned they would be about a specified consequence that might result from an act of aggression toward an irksome peer.

Results showed that the aggressive group did place greater importance on the rewards of the aggressive act and cared less about the damaging results. The aggressive group also placed more value on achieving control over their victims and felt less concerned about the negative consequences of their aggressive acts. In regard to gender differences, boys differed from girls in the same way that aggressive children differed from non-aggressive children.

The authors suggest that the successful treatment of very aggressive youth may involve not simply focusing on rewards and punishment to alter behaviour, but altering the values that these youth attach to the consequences of aggression.

**Early Aggression - Related to Academic, Behavioural and Social Problems**

Ollendick et al. (1990) studied a variety of children over a five-year period to assess whether those identified as aggressive, withdrawn, or well-adjusted would show adjustment differences in a number of areas. The researchers asked fourth grade teachers from 10 public schools to nominate two boys and two girls, based on their social behaviour to one of the following categories: a) aggressive, b) withdrawn, or c) well-adjusted. A total of 225 students were nominated (74 aggressive, 76 withdrawn, and 75 well-adjusted).
Follow-up analyses of the adjustment of 198 children were conducted 5 years later. Factors assessed included 1) grade point averages, 2) absenteeism rates, 3) court records, 4) the Revised Behaviour Problem Checklist (for teachers to identify problematic social behaviour); 5) sociometric nominations and ratings obtained from the classmates; 6) the Public Evaluation Inventory to determine peer nominations of aggression, withdrawal, and likeability; and 7) a high school survey to obtain self-reported measures of substance abuse, conduct disturbance, anxiety, and depression. Sociometric nominations included the number of friendship nominations received and the percentage of classmates who considered a nominated child a "best friend".

The research results showed that in comparison to well-adjusted children, the aggressive children had:

- lower grades, lower ability and achievement
- failed more grades
- were more likely to have dropped out of school
- and committed four times as many criminal acts by the age of 14.

Their grade 9 peers gave them:

- lower sociometric ratings, and fewer positive nominations
- considered them more aggressive and less likable
- and were more likely to classify them as "rejected" or "controversial" on the sociometric scale
- In addition, aggressive children had more conduct problems and substance use.
In comparison to well-adjusted children, withdrawn children had:

- lower grades
- lower achievement and ability scores
- were more likely to have dropped out of school
- and committed twice as many delinquent acts
- They also received lower sociometric ratings, fewer positive nominations
- were considered more withdrawn
- and were more likely to be categorized as "neglected" or "rejected" by their peers.

The researchers noted that while the findings on aggressive children support those of other studies, the findings on withdrawn children do not. Other studies have found that withdrawn children usually show little risk of school dropout, delinquency, or psychological maladjustment. The authors speculated that this discrepancy was related to the fact that withdrawn children in this study were displaying academic, behavioural, and social problems when they were identified as withdrawn by their teachers and, therefore, were more at risk than those in other studies.

**Early Aggression and Peer Relationships**

Snyder, Horch, & Childs (1997) examined peer relationships among preschool children in an attempt to discover any possible connection with the development of aggressive behaviour. Findings revealed that pre-school aggressive children had difficulty in establishing close and stable relationships with non-aggressive children. They tended to
develop strong relationships with other aggressive children which remained relatively stable, and in turn, had a powerful incremental effect on the further development of social aggression. They had more conflicts with both aggressive and non-aggressive children which were longer in duration and escalated in intensity. Regardless of the characteristics of other children, the disagreeable and coercive behaviour of the aggressive children promoted a similar response from them.

In an association between aggressive and non-aggressive children, it was the non-aggressive child who became more aggressive rather than vice-versa. Children who spent more than 30% of their social time with aggressive children showed an increase in aggressive behaviour.

**Proactive Aggression and Later Conduct Problems**

As explained above with regard to types of aggression, Vitaro et al. (1998) has distinguished between proactive and reactive aggression and the outcomes of these two behavioural styles. *Proactive aggression* was defined as goal-oriented: utilized to possess objects or to control others through bullying or other coercive tactics. *Reactive aggression* was defined as a response to provocation or perceived hostility. It was noted that research has established that the two types of aggression are distinct, although one individual can possess both types.

This longitudinal study began with 1037 kindergarten boys from low socioeconomic areas of a metropolitan city. It was designed to examine whether proactive and reactive aggression differentially predict later problems such as delinquency and
aggressive behaviours (i.e. oppositional defiant disorder and conduct disorder). The results of the study indicated that at 12 years of age, proactive but not reactive aggression predicted delinquency, oppositional behaviour and conduct problems. It was found, however, that when both types of aggression were present, high levels of reactive aggression weakened the link between proactive aggression and delinquency. In contrast, high levels of reactive aggression did not moderate the link between proactive aggression. The authors speculated that boys with high levels of proactive aggression may associate with more deviant friends than boys with high levels of reactive aggression. One increasingly common manifestation of proactive aggression in elementary schools is found in bullying behaviour, which is considered next.

**Aggressive Behaviour - Bullying**

Craig and Pepler (1997, 2000) defined bullying as a *combination of power and aggression* which takes many forms across the life span: playground bullying, gang attacks, sexual harassment, date violence, assault, spouse abuse, child abuse, and elder abuse. They noted that bullies intend to cause distress to the victims over whom they have power. Bullying takes different forms: physical (hits, pushing around), and verbal (taunts, put-downs, threats, and racist or sexist comments). It can be face-to-face or indirect, involving gossip or exclusion. These behaviours are degrading and distressing for victims; and especially so if chronic. The authors reiterate that bullying, victimization and other forms of aggression do not unfold in isolation. Although some innate factors may predispose children to aggression, environmental factors foster the development of
aggressive behaviours in the home, school, peer group, community, and society. Research related to bullies, victims, and contexts for bullying is presented here.

Studies (Farrington, 1993; Olweus, 1991) show that serious bullying behaviour tends to be a long-term problem which generally starts with aggression toward siblings, parents and peers. It then follows a developmental path towards delinquency, gang violence, date violence in adolescence and adulthood, of criminality, marital violence, child abuse, workplace harassment, and elder abuse. Significant psychological distress and interference with many domains of functioning are outcomes for victims of repeated bullying. Bullying impacts peer groups, schools and communities (Besag, 1989).

The Canadian Council on Social Development (1997) has documented that nearly half of 15-year old boys and one-quarter of girls took part in bullying activities in school. Craig & Pepler (1997) reported that observations of playground and classroom bullying behaviours indicate that boys primarily bully boys; whereas girls bully boys and girls equally. In addition some bullies are popular with peers. The majority of bullying occurred regularly on the playground and 68% of the bullying episodes took place near school buildings. Adults were found to intervene in only 4% of the cases. When more than one adult was present, however, intervention efforts were increased.

Charach, Pepler & Ziegler (1995) reported that in Canada, 15-20% of children claim being victimized more than once or twice in the past six weeks, with equal distribution between boys and girls. They found that reports of victimization decreased across grade levels: 26% of primary children reported victimization compared to 15% of
junior and 12% of intermediate children. Victims develop a negative reputation within the peer group, become increasingly rejected and increasingly at risk for further victimization. Contrary to survey reports, playground and classroom observations indicated that almost half of the children who are victims are also bullies and vice versa. Those children who are bully-victims appear to be at greatest risk for adjustment difficulties.

Pepler et al. (1997) reported that although 83% of students indicated that watching bullying made them somewhat or very uncomfortable, observation showed that other children were present in 85% of playground and classroom bullying episodes. An audience is thus formed, often providing support for the bully and seldom intervening to help the victim. Further, surveys show that as children age, they become less supportive of the victim. The researchers note that reports of children's inclinations to join in bullying increased with grade level and reports of students' interventions to stop bullying decreased with grade level. The authors support interventions which develop empathy for victims and arrest the victimization.

Cole (1998) reports that longitudinal studies based on whole-school programming have been effective in reducing levels of antisocial behaviour. The author cites the Norwegian campaign which began in 1983 after three children from different schools committed suicide within a week or so as a result of bullying. Whole school programs based on questionnaires, a booklet for staff, and a 25 minute video decreased rates of bullying by about 50% over two years.

Craig & Pepler (1997, 2000) believe that once the power differential in a bully-victim relationship is established, it is increasingly difficult for the victim to extract
him/herself from the situation. They suggest that laissez-faire attitudes allow bullying to flourish and that adult intervention is often necessary to equalize this power differential. Preventive measures should be based on interrupting the causal processes that underlie the development of these aggressive behaviour patterns. Clearly stated codes of behaviour with consistent follow-through were recommended to both decrease risk and increase protective processes. Programs should target children, school staff, parents, and the broader community. The topic of bullying will be touched upon once more in chapter five in relation to school and neighbourhood variables associated with antisocial behaviour.

**Aggression - Serious Violent Juvenile Offenders**

Serious violent juvenile (SVJ) offenders are those who commit serious crimes such as murder, rape, robbery, aggravated assault, and kidnapping. Loeber & Farrington (1998) summarize research on SVJ offenders.

**Serious Juvenile Offenders - Summary of Research Findings:**

- SVJ offenders show evidence of behaviour problems and delinquency early in life, warranting early intervention.
- The majority of the SVJ offenders of any race tend to be multiple problem youth - school problems (truancy, suspension, and dropout), substance use problems, and mental health problems.
- Chronic offenders account for more than half of all serious crime committed by juveniles and the vast majority of chronic offenders are SVJ offenders.
From childhood to adolescence SVJ offenders tend to develop behaviour problems in several areas, including aggression, dishonesty/property offences, and conflict with authority figures, advancing simultaneously in each of these areas.

Minor problem behaviours tend to precede the onset of moderately serious problem behaviours, which in turn tend to progress to more serious forms of delinquency.

Although offenders progress in these areas to SVJ offending, they tend to continue less serious delinquent acts at high rates.

Juvenile courts do not routinely deal with delinquency by youth below the age of 12 years. This means that there is no public agency in society held accountable for the early-onset offenders. As a result there is a fragmentation of services and lack of resources to deal effectively with early-onset offenders. The critical element here is that very young offenders, and particularly serious or persisting young offenders, are the most likely group from which SVJ offenders will develop.

The authors report that many SVJ offenders, judging from their self-reports, are never arrested, even at a later age. Further, at their first appearance in juvenile court, SVJ offenders are often not readily identifiable, because many of them are arrested for less serious delinquent acts. The authors maintain that screening devices, based on legally permissible predictors, need to be improved to identify potential SVJ offenders at their first arrest or first referral to the juvenile court.
Statistics show that the majority of violent youth only commit a single officially recorded violent crime as a juvenile. Therefore, in order to prevent violence it is important not to wait to intervene before this officially recorded violent crime occurs. SVJ offenders tend to be persistent offenders and many of them will be at risk in the community during their peak offending years, even if they were apprehended earlier and incarcerated for a short period of time.

Loeber and Farrington (1998) have summarized predictors of SVJ offending:

- Persistent behaviour problems in children during the elementary school-age years are a warning sign for later SVJ offending.
- Among the strongest predictors of SVJ offending evident between the ages of 12 and 14 are: lack of strong social ties, antisocial peers, non-serious delinquent acts, poor school attitude and performance, and psychological conditions such as impulsivity.
- Juveniles to whom the strongest predictor variables apply are 5-20 times more likely to engage in subsequent SVJ offending than those without such predictor variables.
- The risk of juveniles engaging in SVJ offending is greatly enhanced when they join a gang or become a drug dealer.

The higher the number of risk factors, the greater the likelihood of a youth engaging in SVJ offending. When these risk factors can be identified, children can be helped to avoid sliding into a downward spiral of antisocial behaviour, culminating in conduct disorder.
Conduct Disorder

Shamsie (1995) summarized literature on conduct disorder—a repetitive and persistent pattern of aggressive behaviour—citing figures (1988) which estimated the Ontario prevalence rate of conduct disorder among children four to sixteen years of age at 5.5 percent. This translated to 100,000 cases of conduct disorder in the province at that time. Since the basic characteristic of conduct disorder is the aggressive violation of the rights of others, the implications of these numbers are serious.

Conduct-disordered children fail to adopt social norms; they have learned in their family environments to use aggressive power and coercive techniques to meet their needs. In such families, constant fighting, verbal abuse and abuse of power is the norm. Some studies demonstrate that up 40 percent of those who were diagnosed with conduct disorder in childhood continued with the disturbance into adulthood. Shamsie & Hluchy (1991) note that conduct disorder exacts a heavy toll on society. It translates into impaired functioning in the classroom, the home, with peers and at large in society.

The DSM IV (1994) provides formal diagnostic criteria for conduct disorder as follows:

A repetitive and persistent pattern of behavior in which the basic rights of others or major age-appropriate societal norms or rules are violated, as manifested by the presence of three (or more) of the following criteria in the past 12 months, with at least one criterion present in the past 6 months.

Aggression to people and animals

1) often bullies, threatens, or intimidates others
2) often initiates physical fights
3) has used a weapon that can cause serious physical harm to others (e.g. a bat, brick, broken bottle, knife, gun)
4) has been physically cruel to people
5) has been physically cruel to animals
6) has stolen while confronting a victim (e.g., mugging, purse snatching, extortion, armed robbery)
7) has forced someone into sexual activity

Destruction of Property
8) has deliberately engaged in fire setting with the intention of causing serious damage
9) has deliberately destroyed others’ property (other than by fire setting)

Deceitfulness or theft
10) has broken into someone else’s house, building or car
11) often lies to obtain goods or favors or to avoid obligations (i.e. "cons" others)
12) has stolen items of nontrivial value without confronting a victim (e.g. shoplifting, but without breaking and entering: forgery)

Serious violations of rules
13) often stays out at night despite parental prohibitions, beginning before age 13 years
14) has run away from home overnight at least twice while living in parental or parental surrogate home for once without returning for a lengthy period
15) Often truant from school, beginning before age 13 years

The disturbance in behaviour causes clinically significant impairment in social, academic or occupational functioning. If the individual is age 18 years or older, criteria are not met for Antisocial Personality Disorder. Early onset is specified as the presence of at least one criterion characteristic of Conduct Disorder prior to age 10 years. Adolescent-onset type is specified as the absence of any criteria characteristic of Conduct Disorder prior to age 10 years. Mild, moderate and severe characterize specificity levels.

It can readily be seen that Conduct Disorder is a complicated group of behavioral and emotional problems in children and adolescents. It is a disorder which manifests as great difficulty following rules and behaving in a socially acceptable way. Children with Conduct Disorder are often viewed by other children, adults and social agencies as "bad" or delinquent, rather than disturbed. In terms of the progression of antisocial behaviour, Conduct Disorder is seen as dysfunction advanced beyond Oppositional Defiant Disorder in that afflicted children or adolescents are engaged in some or all of the following: aggression to people and animals, destruction of property, deceitfulness, lying, or stealing, delinquency and truancy.

Children with Conduct Disorder may have coexisting conditions such as mood disorders, anxiety, PTSD (post traumatic stress disorder), substance abuse, ADHD (attention deficit hyperactivity disorder), learning problems, or thought disorders which should also be treated. Research shows that these children will likely have ongoing problems if both they and their families do not receive early and comprehensive treatment.
Without treatment, many young people with Conduct Disorder are unable to adapt to the demands of adulthood and will continue to have problems with relationships and holding a job. They will frequently break laws and engage in aggressive and violent behaviours.

Treatment of children with Conduct Disorder is usually involved and challenging. Adding to this challenge are the child's uncooperative attitude, fear and distrust of adults. A comprehensive treatment plan is recommended with information from the child, family, teachers, and other medical specialities to understand the causes of the disorder. Treatment can be provided in a variety of different settings depending on the severity of the behaviors. Because Conduct Disorder is associated with a variety of influences such as brain damage, child abuse, genetic vulnerability, school failure, and traumatic life experiences, a variety of approaches is often required:

- Behavior therapy and psychotherapy are usually necessary to help the child appropriately express and control anger.
- Special education may be needed for children with learning disabilities.
- Parents often need expert assistance in devising and carrying out special management and educational programs in the home and at school.
- Treatment may also include medication in some youngsters, such as those with difficulty paying attention, impulse problems, or those with depression.

Treatment is rarely brief since establishing new attitudes and behavior patterns takes time. However, early treatment offers a child a better chance for considerable improvement and hope for a more successful future (Long, 1997).
Early and Late Onset Conduct Disorder

Moffitt, Caspit, Dickson et al. (1996) delineated characteristics of early onset and later onset conduct disorder, distinguishing between internal and external factors. They found that boys with early onset conduct disorder exhibited a number of internal factors which included:

- Cognitive, language, and motor deficits
- Co-existing attention deficit hyperactivity disorder (ADHD)
- Extreme aggressiveness
- Reading difficulties
- Poor performance on neuropsychological tests
- Difficult temperament
- External factors included adverse family social situation and poor parenting.

Boys with late onset Conduct Disorder were:

- Less violent
- More attached to their families
- Desired intimate relationship
- Had some desirable leadership qualities, and
- Personality profiles which were less pathological.

Despite these differences in the characteristics of the early onset and late onset groups, data indicated that by mid-adolescence, the behaviour of boys who had early onset and those who experienced late onset were very similar.
Both groups have similar records in regard to their own self reports of illegal behaviour, police arrest records, court conviction records, delinquency of friends, dangerous driving habits, unsafe sexual practices, symptoms of substance abuse.

The 2 groups therefore could not be differentiated except by determining early history.

The early onset group has a poorer prognosis and exhibits a worse pathological profile. Children with conduct disorder are likely grow up to be adult criminals unless there is effective early intervention. They fall into the poor responder group outlined next.

**Characteristics of Poor Responders**

Research and clinical studies (e.g., Shamsie, 1985, 1992; Farrington, 1990; Loeber, 1991; Robins, 1991) indicate that youths who are likely to continue with aggressive behaviour in adulthood have the following characteristics:

- Their antisocial behaviour begins at an early age, usually between 4 and 10 years.
- They exhibit a variety of antisocial behaviours across different settings.
- They suffer from disorders and disabilities such as ADHD and reading disability.
- They tend to come from dysfunctional and neglecting families.

These youths are characterized as poor responders to treatments and have a higher risk of recidivism. Their offending tends to be characterized by chronicity and they have a higher risk of adult criminality.
Aggressive Behaviour - Risk and Protective Factors

Fitzpatrick (1997) itemized risk and protective factors in relation to the development of aggressive behaviour. His report pointed out that no single risk or protective factor determines who develops aggressive behaviour. It is rather a more complex phenomenon of combinations of the factors with their relative weights.

Summarized in the table below are risk factors which increase the likelihood of a youth developing aggressive behaviour.

**Risk Factors**

**Individual Level:**

- Male, non-White, and older youths are in higher risk categories
- Youths who lack adequate life skills, self-control, and have low self-esteem are also at higher-risk.
- Youths more favourably inclined towards negative behaviours (i.e., fighting, drug and alcohol use, etc.) tend to be more involved with aggression.

**Family Environment:**

- When violence is routinely used in the family as a means of solving conflict, children are predisposed to aggression.
- Family disorganization, lack of family cohesion, poor parental supervision contribute to the development of aggression in children growing up with this dysfunction.
- General absence of support, rules and positive expectations are seen as contributing negatively to healthy child development and positively to aggression.
School Environment:

- Schools which are unsafe, uncertain, dirty and without consistent rules contribute to problems with aggression and violence. This contrasts with schools that are safe, well-managed and have clear policies and rules regarding behaviour and general expectations.

- Academic failure - youth who experience failure at an early age are more likely to become distracted and withdrawn from the academic environment

Community and General Environment:

- Exposure to violence, either as a witness or as a victim is known to contribute to aggression.

Protective Factors

The following factors act as protectors to reduce or mitigate the negative impact of risk factors.

Individual:

- A high IQ, resilient temperament, strong coping skills, and high self-esteem work positively to safeguard against the development of aggression.

Bonding

- Strong family ties and relationships with teachers, or significant others serves as a prevention factor.
Healthy Beliefs and Standards

- Clearly established rules and expectations to understand both the benefits and consequences of behaviour operate positively to set down healthy grounding which prevents the development of aggressive behaviours.

Of note in this particular study is the importance of a close warm and confiding relationship with an adult who has positive attitudes. As well, it shows the positive protective effects of good schools and community environments. Even for children who live in dysfunctional families, there is hope that protective factors can bolster their self-image and esteem, and provide healthy alternatives to the antisocial behaviour path.

Conclusion

From the literature surveyed in this chapter, it has been seen that there numerous discrete factors correlated with the development of aggression in young people, as well as a great deal of variety in the manifestation of aggressive behaviours. The trajectory or pathway leading towards antisocial behaviour combines dispositional elements and environmental elements in complex patterns of interaction. In almost all cases of severe antisocial behaviour (i.e., conduct disorder) there is a confluence of factors which combines to produce high risk and poor outcome. For example, if socioeconomic disadvantage and harsh parenting practices are combined with difficult infant temperament and attention deficit hyperactivity disorder (ADHD), the risk factor is increased significantly. Without intervention which addresses the child, the family and the school
environment, poor outcomes are predicted.

**Summary of Variables Connected with the Development of Antisocial Behaviour**

This section contains a summary of variables known to be associated with the developmental of aggression and antisocial behaviour, based on the literature review to this point.

Concerning technical language, the psychiatric journals commonly use the term "predicts" or "predictor variables" in reference to the factors associated with the development of aggression or antisocial behaviour. These terms connote high correlations with the outcomes. As a rule, the social science journals tend to use correlational language. This study presents the literature review in terms faithful to the original published papers.

Immediately following is a summary of the research findings on aggression.

- The literature suggests that it is important to identify temperamentally difficult babies and ensure that parents have resources readily available. There is evidence that home-based interventions which focus on parent-child interaction may improve the prognosis of children at temperamental risk.

- Child-parent interaction which is marked by coercion and control contributes to the development of aggressive behaviour. The research revealed that aggression in school was increased by 1) less nurturin parents at home, 2) more punishment for aggression at home, and 3) less identification of the child with either parent.
Less identification also lessened the positive value of any correctional practices by the parents and exacerbated the negative impact.

- One of the strongest correlations with aggressiveness at age 18, is a child's preference for television programs depicting aggression at the age of 8. It was pointed out that this relationship is bi-directional in that aggressive children prefer violence on television which, in turn, makes them more aggressive. The effect of media violence on the development of antisocial behaviour will be considered in the next chapter.

- Numerous studies demonstrated the importance of heeding aggressive behaviour in early childhood. Early aggression appears to be strongly correlated with later persistent serious criminal behaviour. Higher ratings of early aggression are linked with both a more diverse and a more serious pattern of later offending. Some small differences were evident in the analysis of female aggression, however. It was shown for example, that aggressive behaviour among girls at age 13, compared with aggressive behaviour at age 10, was more strongly associated with later crime. In all cases, however, it is important that early diagnostic findings are linked with preventive strategies to reduce poor outcomes.

- Girls tended to be more involved in relational aggression than boys and it was
established that relationally aggressive behaviours appear in children as young as age three or five years. Further, relational aggression is associated with social-psychological maladjustment for preschool-age children. Early assessment of relational aggression may, therefore, be important in detecting children's adjustment difficulties.

• Three kinds of pathways were delineated for the development of aggression: a) an overt pathway which included behaviours harmful to others, b) a covert pathway which included behaviour that result in property loss and c) an early authority conflict pathway which involved behaviours in conflict with, or avoidance of, authority figures.

In the overt pathway, behaviour began with:

1) bullying and annoying others and progressed to
2) physical fighting, including gang fighting, and led eventually to
3) violence such as rape, robbery and aggravated assault.

In the covert pathway, behaviours proceeded from

1) lying and shoplifting to
2) property damage (fire setting and vandalism) and finally to
3) burglary, car theft, fraud and drug dealing.

In the early authority conflict pathway, behaviours proceeded from

1) stubborn behaviour towards adults
2) defiance and disobedience, and then to
3) authority avoidance before age 12 (truancy, staying out late at night, and running away from home).

- It was shown that when multiple pathways of progression were involved, a group of chronic offenders with a high rate of offences emerged. Boys in the triple pathways (overt, covert and early authority), compared to boys in single or in dual pathways, had the highest rate of self-reported violent and nonviolent offences.

- Knowledge of developmental pathways is thought to be helpful because it allows for tailored and targeted intervention processes which tend to be the most effective. It was recommend that boys with behaviours characteristic of the first step in any of three pathways be assessed each half-year in order to monitor the persistence of the problems and prevent escalation to more serious behaviour problems. Important target behaviours recommended for early intervention were physical aggression, frequent lying, and chronic disobedience.

- Early intervention is important for a number of reasons, not the least of which is that the research shows that once a style of aggressive response becomes characteristic in an individual, whatever its causes, it remains markedly stable across time, situations, and even generations within their family. A study which followed boys from age 8 to age 30 and also assessed their children at age 8 revealed that there was remarkable continuity. Participants at age 8 had similar
levels of aggression to their own children 22 years later and participants at age 30 had similar levels of aggression to their parents 22 years earlier. More aggressive parents had more aggressive children. While virtually all the literature recommends early intervention, this somewhat startling information provides compelling reasons to begin healing processes anywhere along the continuum. Adult recovery from early dysfunctional childhoods will be discussed in subsequent chapters.

- Several subtypes of aggression have been identified and these are considered useful since they allow for focus on specific problem elements in the therapeutic process. These subtypes are as follows: self-directed versus other directed, verbal versus physical, direct versus indirect, overt versus covert, socialized versus under-socialized, adolescent-limited versus life-course persistent, reactive versus proactive, impulsive-affective versus controlled-predatory, and reactive versus proactive.

- Proactively-aggressive youth value having control over their victims and are less concerned about the negative consequences of their aggressive acts. Successful treatment of very aggressive youth may involve not simply focusing on rewards and punishment to alter behaviour, but altering the values that troublesome youth attach to the consequences of aggression.

- That these children are troublesome, but also troubled, is illustrated in results of
investigations which showed that in comparison to well-adjusted children, aggressive children had:

- lower grades, lower ability and achievement
- failed more grades
- were more likely to have dropped out of school
- and committed four times as many criminal acts by the age of 14
- in addition to conduct problems, aggressive children had more substance use.

Their grade 9 peers gave them:

- lower sociometric ratings, and fewer positive nominations
- considered them more aggressive and less likable
- and were more likely to classify them as "rejected" or "controversial" on the sociometric scale.

Further compounding the problem, studies revealed that pre-school aggressive children had difficulty in establishing close and stable relationships with non-aggressive children. They tended to develop strong relationships with other aggressive children which remained relatively stable, and in turn, had a powerful incremental effect on the further development of social aggression. They had more conflicts with both aggressive and non-aggressive children which were longer in duration and escalated in intensity.

- Regardless of the characteristics of other children, the disagreeable and coercive behaviour of the aggressive children promoted a similar response from them.
Results of one study indicated that at 12 years of age, proactive but not reactive aggression predicted delinquency, oppositional behaviour and conduct problems. These results have been duplicated.

- Investigators point out that bullying, victimization and other forms of aggression do not unfold in isolation. They reiterate that although some innate factors may predispose children to aggression, environmental factors foster the development of aggressive behaviours in the home, school, peer group, community, and society.

- Longitudinal studies based on whole-school programming have been effective in reducing levels of antisocial behaviour. Whole-school programs in Norway based on questionnaires, a booklet for staff, and a 25 minute video decreased rates of bullying by about 50% over two years. Proactive intervention is considered essential.

- Researchers declare that once the power differential in a bully-victim relationship is established, it is very hard for the victim to change it on his/her own. They suggest that laissez-faire attitudes allow bullying to flourish and that adult intervention may be necessary to equalize the power differential. Clearly stated codes of behaviour with consistent follow-through were recommended to both decrease risk and increase protective processes. Programs should target children, school staff, parents, and the broader community.
With a host of negative predisposing factors in a child's life, the development of aggression is exacerbated. The most seriously at-risk children become serious violent juvenile offenders. Research on SVJ (serious violent juvenile) offenders shows that they tend to develop behaviour problems in several areas, including aggression, dishonesty and property offences, and conflict with authority figures, advancing simultaneously in each of these areas. These children have multiple problems: school problems (truancy, suspension, and dropout), substance abuse problems, and mental health problems. Persistent behaviour problems in children during the elementary school years are a warning sign for later SVJ offending. Minor problem behaviours tend to precede the onset of moderately serious problem behaviours, which in turn tend to progress to more serious forms of delinquency and antisocial behaviour.

Among the strongest predictors of SVJ offending evident between the ages of 12 and 14 are: lack of strong social ties, antisocial peers, non-serious delinquent acts, poor school attitude and performance, and psychological conditions such as impulsivity. Juveniles to whom the strongest predictor variables apply are 5-20 times more likely to engage in subsequent SVJ offending than those without such predictor variables. The risk of juveniles engaging in SVJ offending is greatly enhanced when they join a gang or become a drug dealer. The higher the number of risk factors, the greater the likelihood of a youth engaging in SVJ offending.
The difficulties described above are referred to as Conduct Disorder (CD) in the DSM IV (diagnostic and statistical manual, version IV). Conduct-disordered children fail to adopt social norms. They have learned in their family environments to use aggressive power and coercive techniques to meet their needs. In such families, constant fighting, verbal abuse and abuse of power is the norm.

Some studies demonstrate that up 40 percent of those who were diagnosed with conduct disorder in childhood continued with the disturbance into adulthood. Conduct disorder exacts a heavy toll on society. It translates into impaired functioning in the classroom, the home, with peers and at large in society.

Early onset conduct disorder is associated with numerous other difficulties, which include the following:

- Cognitive, language, and motor deficits
- Co-existing attention deficit hyperactivity disorder (ADHD)
- Extreme aggressiveness
- Reading difficulties
- Poor performance on neuropsychological tests
- Difficult temperament
- External factors such as adverse family social situation and poor parenting.

While later onset of conduct disorder might at first appear to have better outcomes,
investigations established that by late adolescence, both early and later onset
groups has similar records in regard to their own self reports of illegal behaviour,
police arrest records, court conviction records, delinquency of friends, dangerous
driving habits, unsafe sexual practices, and symptoms of substance abuse.
Conduct Disorder is evident at an incipient level at 4 to 10 years of age. These
children tend to come from dysfunctional and neglecting families.

What Works: Conceptual Framework of Effective Intervention and Prevention

There has been increasing evidence in the literature that interventions aimed at
multiple systems affecting children (e.g., school, parents, and peers) produce better results
than interventions aimed only at one system. For seriously at-risk children, this might
include the following:

- Monitoring and visiting sole support moms and families at risk during the
  early stages of child development.
- Providing enriched childhood experience and learning with high quality
  licensed day care.
- Ensuring that welfare clients receive enough assistance to properly support
  their children and themselves. Helping mothers and fathers with their own
  education and training processes where indicated.
- Provide early diagnostic assistance for children experiencing learning
  difficulties in school.
- Ensuring that schools environments are safe and free from bullying and
assorted other aggressive tactics.

- Intervening early with children and parents where there is evidence of ADHD (to be discussed in detail in chapter 3).
- Intervening early when there is evidence of child abuse, spousal abuse or other forms of family violence.
- Providing adequate special education programs and recreational resources for high-risk children.

**Impact of a Prevention Program on Aggressive Children**

Vitaro & Tremblay (1994) conducted research to determine if, in the long-term, aggressive boys who participate in a prevention program become less aggressive, report fewer delinquent acts, and associate with friends who are less disruptive than boys who do not participate. Participants were 104 aggressive boys; 46 were randomly assigned to the prevention program and 58 were assigned to the control group. The prevention program was implemented over a 2-year period when the children were 8 and 9 years of age. It involved three components:

1) *Parent training* was conducted in the parents' homes by trained therapists. Parents were taught through modeling, coaching, role playing, verbal reinforcement, and a descriptive booklet. Training was done over an average of 17.4 sessions.

2) *Social skills training* with the boys was conducted at school in small groups. Nine prosocial skills were taught in the first year of training.

3) *Cognitive problem-solving skills training* and self-control skills were taught
during the second year of the program.

Aggressiveness, delinquency, and friends' behavioural characteristics were assessed over a 3-year period when the boys were 10-12 years of age. Assessments were based on teacher ratings, peer evaluations, and a self-report delinquency measure. The results showed that the differences between those who participated in the prevention program and those who did not tended to increase from one year to the next over the 3-year follow-up period. At 12 years of age, a comparison of the two groups indicated that those who participated in the prevention program:

- were considered less aggressive by their teachers
- tended to have lower delinquency scores
- were less likely to report committing vandalism and stealing (1 of 3 control boys committed these acts compared to 1 of 6 boys who participated in the prevention program)
- had best friends who were perceived as less disruptive

Parents, teachers, family physicians, and pediatricians, however, have to be convinced that aggression in children is a symptom which, if not treated, can lead to a serious disorder. This study, like others, has suggested that early intervention can prevent an aggressive child from becoming a delinquent teenager. Because the causes of aggression are likely to be rooted in systems in the family, studies have shown that treatments that include both the individual and the family are the most effective when dealing with aggression.
Protective Factors

In terms of prevention, the following protective factors were also delineated. These factors can counteract negative predisposing factors and help to produce more positive outcomes.

- At the individual level, a high IQ, resilient temperament, strong coping skills, and high self-esteem work positively to safeguard against the development of aggression.

- At the family and school level, strong family ties and close, responsive relationships with teachers or other significant adult figures serve as a preventive factor.

- It was found that clearly established rules and expectations were helpful. These enable children to understand both the benefits and consequences of their behaviour. Structure and guidelines operate positively to set down healthy grounding which prevents the development of aggressive behaviours.

- Higher socio-economics status (the absence of poverty and the stressors it entails) is a protector.

Numerous factors are involved in the development of aggression and antisocial behaviour. The value of summarizing these factors is that they become more readily accessible as a coherent framework or model. This may be useful for families, teachers, and helping professionals. Early childhood aggression, if untreated, can lead to serious negative outcomes for children, families and society at large. Proper assessment and
intervention are critical. Children who exhibit early indications of aggressive and antisocial behaviours deserve careful and sound assistance so that they can grow to be healthy, happy and productive individuals.

**Big Brothers and Big Sisters**

Big Brothers and Big Sisters is an organization which provides needy youth with an adult's supportive relationship, friendship and guidance, often replacing an absent maternal or paternal influence. There are over 500 agencies in the U.S. network, which supervise more than 70,000 youth and adults in one-to-one relationships. The program targets youth (aged 6 to 18) from single parent homes. Volunteers who interact regularly with a youth in a one-to-one relationship are followed by agencies using a case management approach.

A case manager screens applicants, makes and supervises the matches, and closes the matches when eligibility requirements are no longer met or either party decides they can no longer participate fully in the relationship. Rigorous published standards and required procedures characterize Big Brothers and Big Sisters operations and a high level of quality is maintained. All volunteers are required to attend a full orientation.

The screening process includes a written application, a background check, an extensive interview, and a home assessment. It is designed to screen out those who may inflict psychological or physical harm, lack the capacity to form a caring bond with the child, or are unlikely to honor their time commitments.

The youth assessment process involves a written application, interviews with the child and the parent, and a home assessment. These procedures are designed to help the
caseworker learn about the child in order to make the best possible match, and also to secure parental permission. Matches are carefully considered and based upon the needs of the youth, abilities of volunteers, preferences of the parent, and the capacity of program staff. Supervision is accomplished via the following:

- An initial contact with the parent, youth, and volunteer within two weeks of the match
- Monthly telephone contact with the volunteer, parent and/or youth during the first year
- Quarterly contact with all parties during the duration of the match.

Program evaluations have been conducted to follow children who participated in Big Brothers/Big Sisters compared to a non-participating control group of peers. After an eighteen month period, it was found that the Big Brothers/Big Sisters youth were:

- 46 percent less likely than control youth to initiate drug use during the study period
- 27 percent less likely to initiate alcohol use than control youth
- almost one-third less likely than control youth to hit someone
- Better than control youth in academic behavior, attitudes, and performance
- More likely to have higher quality relationships with their parents or guardians than control youth.
- More likely to have higher quality relationships with their peers at the
end of the study period than did control youth.

The national average cost of making and supporting a match relationship is $1,000 per year (McGill, Mihalic, & GrotPeter, 1998). Programs such as this which involve the establishment of secure and steady relationships with guiding figures have proven to be both cost effective and productive of positive outcomes.

The next chapter considers genetic, psychological and neurological variables associated with the development of antisocial behaviour.
CHAPTER THREE
GENETIC, PSYCHOLOGICAL AND NEUROLOGICAL FACTORS

Introduction

This chapter reviews a rapidly expanding literature on the psychological, biological and neurological correlates of antisocial behaviour. The literature has become highly informative about everything from genes to early childhood precursors associated with antisocial behaviour, and it may be tracked in numerous scientific journals and books. This chapter presents an overview, albeit necessarily incomplete because of the highly specialized nature of the physical sciences, of several key influences.

There has been controversy surrounding some of these topics and the data presented here are therefore best viewed as a snapshot in time. As investigative methodologies are further refined, it is possible that new and different information will emerge.

Genetic versus Environmental Influences

Social and environmental factors alone aren't enough to explain antisocial behaviour. The research indicates that anger and hostility and their visible outcomes such as crime and violence are caused neither solely by the environment nor exclusively by biology. If it were simply a matter of environment, then it would be expected that everyone born in a ghetto would be a criminal and everyone born in plentiful and wholesome conditions would be a model citizen. The truth is more complex. Genes, per se, do not make criminals; nor do harsh environments.
Science has endeavoured to disentangle the role of genes and environment with studies of adopted children. One set of parents (the family of origin) provides the genes, the second, provides the environment. Studies are conducted on children who are separated from their biological parents shortly after birth and brought up by genetically unrelated parents. Some of the most comprehensive adoption experiments have been conducted by Remi Cadoret and his colleagues who studied more than 1,000 Iowa families during the past 20 years (Cadoret, 1978; Cadoret, Cain & Crowe, 1983; Cadoret, O'Gorman, Troughton & Heywood; Cadoret, Yates, Troughton, Woodworth & Stewart, 1995). They compared the biological children of parents with difficulties with the law, alcohol and interpersonal relationships to the biological children of parents without such problems. All the children were separated from their biological parents at birth or within a few days and adopted by families with no blood ties. The research centered around this basic question: are the adopted children more like their biological parents (the genetic link) or more the parents who reared them (the environmental factor).

The results showed that for children with non-problem genes, the home environment made little difference. Even if the new parents got divorced, abused alcohol or drugs or had other problems, the children turned out the same as kids raised in good homes. In other words, the ratio of non-problem kids to problem-kids was the same as in the population at large. The key factor was that when the genes were “good,” the rearing environment did not matter.

When the genes were “bad,” however, (i.e., from biological parents in trouble with the law, etc.) the home environment meant the difference between success and
failure. When the home environment was bad, the children who had inherited problem genes were at risk. In these families, the level of childhood and adolescent aggression was dramatically increased. Measures of behavioural problems such as lying, stealing, truancy and school expulsions were up by as much as 500 percent.

This would appear to signify that what is being inherited is not intrinsically bad behaviour or aggression, but more likely a genetic sensitivity to the environment. The genes, in other words, did not make the children antisocial, but did make them vulnerable. Children responded to good environments and grew up well; others responded to bad environments and grew up with problems.

Similar work with adoption data comes from Sweden, where meticulous records of adoptions, court proceedings and hospitalization records were a boon to researchers (Bohman, Cloninger, von Knorring & Sigvardsson, 1984 and Cloninger, Bohman, Sigvardsson & von Knorring, 1982). The Swedish studies looked at every one of the 862 men who were born out of wedlock in Stockholm between 1930 and 1949 and adopted by nonrelatives. The records were searched for information about criminal behaviour, drinking and medical problems. Biological parents, their children and the adoptive parents were compared. The criminal records showed a striking interaction between genes and environment:

- When both the biological and adoptive parents were from the low-crime groups, the adopted men had a low (3 percent) arrest record for mainly petty crime which was consistent with the general population.
• When men had been adopted into a high-risk family, the criminality rate was at 7 percent.
• When men were the biological children of the high-risk parents, the arrest rate rose to 12 percent.
• When men from high-crime biological parents were placed with high-crime adoptive parents, the rate of crime rose to 40 percent.

Other studies of children and adults have shown a similar pattern. Twin studies of juvenile delinquents conducted in North America, England and Japan, showed correlations of 91 percent for identical twins and 73 percent for fraternal twins. If one twin was delinquent, the brother, whether identical or fraternal, had a high probability of also being a delinquent (Hamer & Copeland, 1998).

Hamer & Copland (1998) report that seven different studies of criminal behaviour conducted since the 1930s in North America, Germany, Denmark, Norway and Japan found average concordance rates of 52 percent for identical twins and 23 percent for fraternal twins. The fact that the correlations are different would suggest that genes are playing an important role.

Further studies by van den Oord, Verhulst, & Boomsma (1996) involved sets of 3-year old twins [446 monozygotic (identical) and 503 dizygotic (fraternal) twins]. The investigators sought to determine the influences on problem behaviours. Their findings revealed that the importance of genetic factors varied depending on the internalizing or externalizing nature of the behaviour.
Internalizing problems such as anxiety, depression, somatic and sleep disorders showed a large genetic component. Environmental influences were relatively weak; shared environment had no influence and non-shared environment had a modest influence.

Externalizing problems such as aggressive and oppositional behaviours showed smaller genetic influences in comparison to shared environmental factors such as parenting practices and socioeconomic status. Studies of this nature are useful because when investigators are able to divide environmental influences into shared and non-shared components they can view differences with the genetic variable being constant. Shared environmental factors are those which influence all children in the same family such as parenting practices, loss of a parent and socioeconomic status. Non-shared environmental factors are those which affect children differently such as peers, accidents and differential parental treatment. This particular study is important because it shows that the influence of such factors is evident even as early as 3 years of age.

At the very least, the research data generated thus far indicates that genetic effects are usually intricate interactions with environmental factors and for complex behaviours like crime, genetic involvement is even more complex than for other traits. That a single gene (a crime gene, for example) might be present is clearly not the case; many genes are most likely involved and many reactions are possible. For example, temperament shows wide variations and is considered to have a genetic component. The following studies review the relationship of temperament and the development of antisocial behaviour.
Temperament and Behaviour

A longitudinal twin study by Gjone & Stevenson (1997) was designed to determine the relationship between behaviour and temperament. Temperament is defined as certain genetically determined behaviour and emotional characteristics that a child exhibits during infancy. Parents of 759 same sex twins born between 1977 and 1985 were asked to complete the Child Behaviour Checklist to determine behavioural characteristics (i.e., anxious/depressed, attention problems, delinquent behaviour, and aggressive behaviour). Temperamental characteristics (i.e., emotionality, sociability, activity) were assessed via parents completing the EAS Temperament Survey. These questionnaires were sent in 1992 when the twins were between 6 and 15 years old. After two years, parents were asked to complete the same questionnaires as a follow up.

Results indicated that children who had a highly emotional temperament showed the following behaviour characteristics:

- cried easily
- got upset easily
- reacted intensively when upset

Schmitz, Fulker & Mrazek (1995) also studied twins--both monozygotic (identical) and dizygotic (fraternal) children--aged 2-3 years and 4-16 years. Their results suggest that stability and persistence of aggressive behaviour can be explained because of its genetic origin. However, genetic factors were more important in influencing behaviour problems in middle childhood than in early childhood. Environmental factors,
in contrast, had stronger influence on behaviour problems in early than in middle childhood.

Caspi, Henry, McGee et al. (1995) examined the relationship between specific characteristics of temperament in early childhood (ages 3 and 5) and specific behavioural problems in later childhood and adolescence (ages 9, 11, 13 and 15). The sample consisted of over 800 children. The following findings were in evidence.

- Children who experienced lack of control in early childhood were more likely to experience externalizing problems in late childhood and adolescence (e.g., hyperactivity, inattention, antisocial behaviour and conduct disorder).
- Boys, who were approachable, extremely friendly, self-confident and self-reliant in early childhood were less likely to experience problems of anxiety and distress in later childhood and adolescence. Among girls, individual differences in approachability, friendliness and self-confidence during early childhood were not consistently associated with later behaviour problems.
- Girls who reacted passively to new situations were more likely to experience anxiety and distress in childhood and adolescence. These girls also experienced more attention problems in adolescence.

These studies show that the specificity of temperament characteristics are important when attempting to assess future outcomes and introducing therapeutic preventive measures. Biological/neurological factors are considered next.
Biological/Neurological Factors

Structural Brain Deficit

Researchers have identified a biological difference in violent antisocial men, a finding which supports a hypothesis that aggression and violence may be determined by biology as much as environment. A study from the University of Southern California published in the Archives of General Psychiatry used magnetic resonance imaging (MRI) to examine 21 volunteers diagnosed with Antisocial Personality Disorder (APD) and a control group of 60 other men. Adrian Raine (2000), a psychopathologist at the university, reported that the results show "that some men are predisposed to crime. It's a significant piece of the jigsaw. We've just begun to discover the brain mechanisms that can predispose to antisocial and violent behaviour." Raine's team reported that the 21 volunteers with APD had 11% fewer nerve cells in their prefrontal cortices than normal males. They concluded that this brain damage, seen under the MRI, may explain the lack of conscience, poor decision-making skills and abnormal fear responses that are typical of antisocial, psychopathic behaviour.

The prefrontal cortex is vital in the orchestration of emotion, arousal and attention. It appears to house the mental machinery that enables people to restrain themselves from acting on all of their impulses. The APD group showed an 11.0% reduction in prefrontal gray matter volume in the absence of ostensible brain lesions and reduced autonomic activity during the stressor. These deficits predicted group membership independent of psychosocial risk factors. Raine's team reports that to their
knowledge, these findings provide the first evidence for a structural brain deficit in APD. Further, this prefrontal structural deficit may underlie the low arousal, poor fear conditioning, lack of conscience, and decision-making deficits that have been found to characterize antisocial, psychopathic behavior.

Additional findings of this study showed that the same volunteers also had a much lower heart rate and sweat rate when they were subjected to a stress test which involved making a videotaped speech on their faults. This finding suggested an abnormal response in the adrenal system - the so-called fear or flight system. The study reports that taken together the biological and social factors (absence of fear) were 88.5% effective in predicting APD. This new evidence indicates that antisocial individuals growing up from birth or early childhood with this defect have the deck stacked against them. Dr. Raine suggests, however, that if children with this problem were diagnosed and treated early enough, they could be steered clear of an antisocial criminal lifestyle.

Suggested therapies included cognitive, behavioural and drug therapy, as well as directing children toward safe activities to satisfy their natural stimulation-seeking and aggressive tendencies. Raine recommends focusing resources on the small group of youngsters - the 5% who will commit 50% of the crime and violence later in life. He argues that tackling imprisoned adults is almost a waste of time. Tracking adolescents when they're juvenile delinquents is far too late. We have to get to these kids much earlier in life, when the brain is more plastic.
Psychopathy - Etiology

Genetic/neurological factors such as those above are linked with the most severe manifestations of antisocial behaviour; i.e., at an early age, cruelty to people and animals and later, the violation of society's rules at a consistent and intense level. Such behaviour is called psychopathy and the evidence of childhood provides one clue which distinguishes the psychopath from other antisocial offenders. This clue is the fact that the most violent and antisocial adults have one thing in common - they were violent, antisocial children.

Robert Hare (1998) is a Professor Emeritus in the Psychology Department of the University of British Columbia who conducts research in the assessment, development, neurobiology, and treatment of psychopathy. Hare, (1993, 190) in remarking on the distinctive neurological correlates of psychopathy, comments: “I can find no convincing evidence that psychopathy is the direct result of early social or environmental factors.” Adrian Raine, another pre-eminent researcher on the psychophysiology of violence, has suggested, however, that the coldness exhibited by psychopaths may well be a learned response to early trauma. Rather than adopt a biologically deterministic model, Raine (1997) opts for what he terms a “biosocial” approach in which environmental stress causes actual changes in brain chemistry. Raine (1996, 1997a) reported that a combination of birth complications, maternal rejection, and low arousability was the best predictor of serious violence in Danish children.

Recent evidence from PET (positron emission tomography) scans and MRI studies (multiple resonance imaging) indicates that there are biological differences
present in the brains of individuals diagnosed with psychopathy (Raine, 2000). These differences may be the result of heritable genetic factors, prenatal/postnatal/early-childhood experience. As opposed, therefore, to either a strictly biological or environmental determinism, a combination of physiology, temperament and chaotic environment best predicts violence in children and adults.

Empirical support for the interaction between environmental and biological damage comes from studies of youth who have committed murder. Variables found repeatedly in young murderers include language disorders suggestive of brain damage; a history of physical and sexual abuse; exposure to frequent, high-level episodes of extreme violence (primarily within the family); additional indications of family chaos such as parental promiscuity, incarceration and substance abuse; low IQ (90 or below); serious school problems; alcohol and drug abuse (mostly cocaine); and documented instances of head trauma (Myers, 1995). Another study of fourteen juveniles (13 to 17 years old) who committed sexual homicide revealed a similar set of precursor variables. These youths had stalked, raped, stabbed, impaled and/or mutilated their victims. Their backgrounds included violent, chaotic, abusive families; paternal abandonment or neglect; school problems and truancy; substance abuse; and attention deficit hyperactivity disorder. A distinguishing characteristic of these young violent sexual offenders (and their adult counterparts) was an early preoccupation with violent erotic fantasies. Two were influenced by media violence - Dungeons and Dragons in one case and Rambo in another; in the latter a stabbing in the head was copied from the film (Myers, 1989).

Also implicated as a biological correlate is significantly lower cardiac
arousability, as measured by relatively low resting heart rates as well as cardiac systems that fail to respond strongly to threatening situations (Raine, 1997; Kindlon, 1995). The Mauritius Child Health Study (with a sample of 1,130) assessed children at three years of age and followed up at 11 years of age. It was found that low resting cardiac rate in toddlers predicted aggressiveness and antisocial tendencies at a better-than-chance level even when environmental factors such as social deprivation and broken homes, and biological factors such as body size, activity level, physical development, muscle tone, and general health, were controlled for. At the other end of the spectrum, studies point to the protective nature of arousability. In these studies, children at high risk for criminality because they had criminal fathers were more likely to avoid crime if their resting heart rates during childhood were high (Raine, 1990; Brennan, 1997).

Consistent with a biopsychosocial approach, is the idea that abused children are more likely to exhibit a specific constellation of psychological problems known as dissociative reactions (withdrawal, amnesia, multiple personality disorder). Dissociation is a method of psychological self-defence - a turning down of the emotional thermostat, a kind of psychic cryogenics that shuts out intense horror. The coldness exhibited by psychopaths may be a learned response to early trauma and may be related to the slowing of the heart rate (Raine, 1997). Empirical evidence for the numbing hypothesis as a consequence of emotional deprivation comes from a study that found children whose parents divorced by age four had lower resting heart rates at age 11 than did children from intact homes (Wadsworth, 1987). Further, Raine cites research with fetal rats which indicates a link between emotional stress and changes in the frontal lobes of the brain, the
area most often implicated in aggressive behaviour in humans (Cenci, 1992).

Another element associated indirectly with neurological difficulties is low birth weight. In turn, low birth weight is correlated with low socioeconomic status, and having a mother who is unmarried, a teenager, poorly educated, malnourished, receiving poor prenatal care and a heavy smoker. Research concludes that poor nutrition, low birth-weight, poor attachment to a caregiver and too much stress can cause significant neurological damage leading to behavioural disorders that include learning disabilities and mental retardation, as well as emotional problems. Consumption of alcohol during pregnancy may also cause long-term neurological damage in children that can result in hyperactive behaviour, learning disabilities and an inability to interact normally in a social milieu (Standing Committee on Health and Welfare, 1992). The central nervous system matures during the early childhood years. Interference with brain development at this juncture or before may cause neurological damage which can lead to both the disabilities listed here and to extreme conduct disorder.

Psychopathy - Manifestation

As has been found, psychopathy is thought to be due to an inherited structural abnormality or a chemical imbalance of the brain that results in unpredictable violent behaviour. Psychopathy is characterized by a constellation of interpersonal, affective and behavioural traits that are strongly related to risk for violence and recidivism. Moir and Jessel (1995, 163) point out that "The psychopath baffles us, because his is a mental disease which wears the mask of sanity. The severe psychopath may seem to enjoy robust
mental health. Psychopaths are not disorientated or out of touch with reality ...they are rational and aware of what they are doing, and the law accepts that their behaviour is the result of choice freely made. ...The psychopath intellectually knows that what he has done is wrong; it's just that he does not care about it."

Robert Hare has developed a checklist, marketed by Multi-Health Systems, which describes the characteristics which distinguish the psychopath from the general mass of aggressive and antisocial individuals. It includes the following:

- a lack of guilt, loyalty or empathy
- an incapacity to form deep or meaningful interpersonal relationships
- a failure to learn from experience or punishment
- profound egocentricity and superficial charm
- persistent antisocial and criminal behaviour without any evidence of remorse for the harm done to others
- a predisposition to aggression particularly under the influence of alcohol.

In addition, Hare has identified these associated personality traits which help to identify the psychopathic personality.

- glibness/superficial charm
- grandiose sense of self-worth/egocentric
- pathological lying
- lack of remorse of guilt and shallow emotions
- callous/lack of empathy and
failure to accept responsibility for actions

Deceit and manipulation are central to the psychopathic character. These individuals are totally unconcerned when caught out in lies - they will unblinkingly change their story to accommodate a necessary correction. Hare has identified a second set of factors, taking into account the actual behaviour of the subject, and the inherent instability of his lifestyle. These include:

- need for stimulation/proneness to boredom/need for excitement
- parasitic lifestyle
- poor behavioral controls and early behaviour problems
- lack of realistic, long-term goals
- impulsiveness, irresponsibility and juvenile delinquency
- revocation of conditional release

The Hare Psychopathy Checklist is considered reliable and it is widely used in correctional and early diagnostic work (Moir & Jessel, 1995).

Psychopathy is characterized by impulsiveness, a lack of internal control and the absence of conscience or concern for others' feelings. Few women fit the category (females with the disorder are three to four times rarer than the male). But when they do, they are likely to show the same indifference to the suffering of others and to exhibit even stronger antisocial attitudes, although they are less likely to resort to actual violence. Case histories have suggested that female psychopaths seek out their male equivalents to commit crimes. They appear also to be implicated in severe neglect (and murder) of their children (Moir and Jessel, 1995).
Psychopaths lack the mental equipment to experience fear due to an abnormality in the prefrontal (thinking and planning) area of the brain. In the brains of aggressive psychopaths the area that creates feelings (hence the ability to comprehend guilt, shame and remorse) is disconnected from the more "thoughtful" frontal lobes. In other words, the thinking part of the brain is not being informed by the emotional part, so it lacks the necessary moral education. For example, PET (positron emission tomography) scans have revealed abnormalities in the hypothalamus of the nonviolent pedophile. The violent pedophile shows the same abnormalities as well, but also has abnormalities in the frontal lobes and the limbic system. Relative risk statistics on individuals from one study showed that psychopaths were approximately three times more likely to recidivate, or four times more likely to violently recidivate than were nonpsychopaths involved with the justice system (Hemphill, Hare & Wong, 1998).

Concerning additional biochemical bases for antisocial behaviour, it is noted that eighty-nine to 95 percent of all crime is committed by men. The literature suggests this may be due to the fact that the male brain has a lower level of the neurotransmitter responsible for controlling impulsive behaviour - serotonin. In addition, males have higher levels of testosterone, which is associated with greater readiness to engage in aggressive behaviour.

Adoption studies, as noted in chapter three, have provided the most startling evidence of a biological connection with antisocial behaviour. Pharmacology and other avenues of treatment have shown limited promise, but it is clear that solutions are still required for the dysfunctions, chemical and neurological failures of the damaged minds.
evidenced in psychopathic individuals. The literature states that there is "no cure" for psychopathy and this may well be true for the time being, but as research progresses, there is hope that biochemical/neuroscientific approaches will offer some promise (Moir and Jessel, 1995).

It is interesting—from a preventive perspective—to note that a psychological tool, finely honed by the FBI (Federal Bureau of Investigation) is being field-tested in schools in the U.S. and Canada. The “Mosaic” profiling system has been widely used by U.S. government agencies to target potentially dangerous individuals. Mosaic 2000, as the school version is called, is a computer system that employs database comparisons to take some of the guesswork out of identifying troublemakers. It is based on questions crafted by 200 experts in law enforcement, psychiatry and other areas about student behaviour based on case histories of people who have turned violent. Questions address a variety of concerns—from the availability of guns to a student's abuse of dogs and cats. The questions allow a range of answers. Each evaluation is rated on a scale of one to 10, with 10 representing cases most similar to those that have escalated, and thus most in need of intervention. The programs are intended to help officials distinguish a real threat from innocuous outbursts. They stress that the system is not a "big brother" approach. The official position is that information gathered for each evaluation is held at the school only, and is never communicated over the Internet. Gavin de Becker Inc. of California, co-developer of the program, reports that there is no central combining of cases. The company's web site states that every principal "already has a method for evaluating students who make threats--it's just that most of those methods are unorganized,
idiosyncratic, and cannot be expressed or documented." Mosaic-2000 is intended to bring uniformity, structure, expert opinion, and validity to high-stakes evaluations (Gavin de Becker, 1999, National School Boards Association, 1999). Andrew Vita, associate director for field operations of the Bureau of Alcohol, Tobacco, and Firearms--also a developer of the program--argues that school officials need Mosaic and other tools to deal with an ever more complex threat in which relatively good students with access to guns may erupt because they feel victimized by bullies or by the school system.

In Canada, three New Brunswick schools and several in downtown Toronto are providing data for the research, which is partly financed by the National Crime Prevention Centre in Canada. The FBI is also putting together a handbook that will list characteristics most often associated with violent kids (Morris, 1999). A fruitful topic for further research might be the case management process for students identified by the system as high-risk youth.

The Role of Serotonin

Studies on the role of the levels of the neurotransmitter serotonin summarized by Hamer & Copeland (1998) provide interesting evidence of the complexity associated with the physiological elements of violence. The serotonergic system is the most widespread neurotransmitter system in the brain. Its branching gives serotonin a broad-brush effect on the brain. There are many different serotonin receptors, each of which is produced by its own distinct gene. Anything that alters the system has a big impact on mood, self-perception and behaviour. Factors that influence the system include drugs, life
experiences, and genes. Genes provide the blueprint for the serotonin system and then build it, and the system is in place before birth.

Research in both monkeys and humans has attempted to define the relationship between serotonin and aggression. The monkey research has used a variety of evidence from blood serotonin levels in both wild monkeys and monkeys in captivity. A clear correlation between high serotonin levels and dominance has emerged. Dominance and aggression, however, are quite distinct. Dominant monkeys are almost never impulsively violent. When challenged, they will engage in a fight, but they do not seek fights. They tend rather to be purposeful in their behaviour and to be affiliative and well integrated socially. Dominant, high-serotonin monkeys engage in a high level of social activities with both other males and females. Winning affiliation with females leads to and maintains dominance, while fighting with females is a sign of low hierarchy.

It has been found that monkeys with low serotonin levels become maladaptively aggressive and, at the same time, less socially competent. The relationship is bidirectional:

- Low-serotonin monkeys tend to be socially deviant and ostracized and
- socially deviant and ostracized monkeys tend to have low serotonin levels.

On the other hand, increasing brain-serotonin transmission decreases aggression and impulsivity in low-serotonin animals. The most specific effect appears to be on affective aggression which is aggression against other members of the same species marked by arousal and vocalization. Predatory aggression, a more controlled form of
aggression is usually directed against other species. Affective aggression is thought to be a model for violence against the self or family members in humans (Kramer, 1994).

Lesch, Bengel, Heils, et al. (1996) followed a series of experiments which showed that everybody has a gene that makes the serotonin transporter, but that they make different amounts. If levels of the serotonin transporter are low, or if it doesn't work, then more serotonin is left splashing around the brain, jolting everything it touches. If the transporter works well, most of the serotonin gets sucked back up before it jangles the brain. More than a dozen distinct serotonin receptors have been identified and their genes have been cloned. There is only one serotonin transporter, however, which comes from just one gene. So anything that affects the serotonin transporter will affect all of the psychological traits controlled by serotonin.

About 32 percent, or one-third, of the population have two copies of the longer, more powerful form of the gene and therefore make high levels of serotonin transporter. The remaining 68 percent, or two-thirds, have one or two copies of the shorter version of the gene, which is dominant, so they make less of the transporter. Lesch and colleagues found that the people with the highest level of anxiety-related traits had the short version of the gene promoter.

This meant that where the serotonin transporter was least efficient, people had the most anxiety. These results were consistent with the classical model based on experiments with animals and humans which holds that serotonin signaling is what causes anxiety, depression, anger and hostility. Depression in this model is viewed as a
form of anger or bad feeling about oneself, and aggression is viewed as anger towards others. Once the link between serotonin and violence had been tentatively established in humans, scientists began to manipulate serotonin levels in animals.

Because rhesus monkeys are naturally aggressive within the species, they were chosen for a large-scale correlational study. Higley, Mehlman et al. (1992) studied populations of wild rhesus monkeys - a close relative of homo sapiens, to assess the relationship between serotonin and aggression. The investigators corralled small groups of free-ranging adolescent monkeys and rated them according to observed aggression, fight wounds and old scars. The monkeys' spinal fluid was tested for levels of a serotonin-breakdown product, or metabolite. High aggressivity correlated with low brain-serotonin levels. It was found that the most aggressive monkeys had the least serotonin; the least aggressive had the most. The most aggressive monkeys also had increased levels of two other chemicals, the monoamine norepinephrine and the hormone ACTH, both thought to be markers of stress.

Studies indicate that humans are similar to monkeys in this regard. In human children and adolescents, low levels of a serotonin metabolite in the spinal fluid predict the severity of physical aggression on follow-up two and a half years later. Similarly, low levels of the same metabolite in spinal fluid correlate with highly planned suicide attempts (violence against the self) in hospitalized adults. Research indicates that violent tendencies in aggressive and impulsive humans and other animals can be diminished with serotonin-enhancing drugs.

Genetic engineering has allowed scientists (Cases, Seif, Grimsby, Gaspar et al,
1995; and Saudou, Amara, Dierich, Lemur, et al., 1994) to study the serotonin receptors in the brain, where the chemicals transfer information. If the receptors were involved in aggression, then it followed that blocking those receptors should change the level of aggression. A strain of mice totally lacking one such serotonin receptor (5HT₁₉) was produced. The first group of mice that was produced initially appeared similar to normal controls. When unfamiliar mice were put into the cages of both groups, however, the two responded differently to the “intruder.”

The serotonin-inhibited group had been converted into killers. These mice attacked (bit, chased and threatened) an intruder mouse six times every three minutes, as opposed to normal mice in the experimental situation where attacks toward an intruder were milder and fewer than one every three minutes. Results showed that low serotonin was correlated with high aggression. Extrapolation of the numbers in the data were considered equivalent to being dropped into a neighbourhood where the violent crime rate is 600 percent above normal. Simply by losing one of the more than a dozen serotonin receptors, normal mice became violently aggressive. Inferences might be made that genes per se caused aggression since genes have a role in serotonin levels and how it is used. The research confirms, however, that this simple deterministic concept is not quite valid. Environmental factors also influence serotonin levels in a bi-directional process.

Raleigh, McGuire, Brammer, Pollack & Yuwiler (1991 and Raleigh and McGuire (1991) manipulated variables to analyze the role of serotonin in relation to dominance in adult male vervet monkeys. When drugs were used to manipulate serotonin levels, the
results were as expected: low levels produced aggressive monkeys, high levels produced calmer monkeys. The monkeys with the highest levels were most likely to rise to leadership position in the group. However, when the investigators reorganized the pecking order, moving the top-ranked males to the bottom and the followers to leadership positions, they found measurable differences in the serotonin levels. When the serotonin levels were checked, the new leaders had higher serotonin levels than when they were on the bottom of the pack. The former leader of the pack became hostile, irritable and prone to random acts of violence. The change in social position alone was enough to lower his level of serotonin. The researchers had not artificially changed serotonin levels, just social position. The change in pecking order and status had *itself* changed serotonin levels.

The same investigators produced a variation of this effect with college fraternity brothers and found that the leaders had higher serotonin levels than new pledges. They concluded that the most likely explanation is that a person's place in the pecking order is the *cause*, rather than the *effect*, of different serotonin levels (my italics).

As Hamer and Copeland (1998) point out:

> If this is happening in society at large, it doesn't take much imagination to realize that a person who is born into poverty, who lives in a slum, who doesn't have a good education, who has the "wrong" skin color, religion or language might expect to have low social status. With that comes low serotonin, and with low serotonin comes aggressiveness, hostility and violence which of course, can only lead to more of the same. Obviously this tendency to violence occurs only to a
small minority, even in the worst environments, so other factors are also at work (p.106).

The Role of IQ

IQ correlations with antisocial behaviour are reviewed as a distinctive part of the overall data. The classical tradition on intelligence quotient (Herrnstein and Murray, 1996) postulates that there is such a thing as a general factor of cognitive ability on which human beings differ. All standardized tests of academic attitude or achievement measure this general factor to some degree, but IQ tests expressly designed for that purpose measure it most accurately. IQ scores match what it is that people mean when they use the word “intelligent” or “smart” in ordinary language. IQ scores are stable, although not perfectly so, over much of a person's life. Properly validated and administered IQ tests are not demonstrably biased against social, economic, ethnic or racial groups. Cognitive ability is substantially heritable, apparently no less than 40 percent and no more than 80 percent. The authors caution that these foregoing points are accurate as general rules but still leave room for differences in the theoretical and practical conclusions that people of different values and perspectives draw from them.

In their article Intelligence and Delinquency: A Revisionist View, Hirshi & Hindelang (1977) reviewed many studies that included IQ measures. They took into account the potential artifacts and concluded that juvenile delinquents were in fact characterized by substantially below-average levels of tested intelligence. A decade later, a more recent summary says: “At this juncture, it seems reasonable to conclude that the
difference (between offenders and nonoffenders in intelligence) is real and not due to any of the possible methodological or confounding factors that have been noted in the literature” (Quay, 1987, p. 107). Questions of interpretation are still open, although the investigators have noted that they are narrower than they used to be because the correlation itself is no longer in dispute.

Along this line, data shows that, taking the literature as a whole, incarcerated offenders average an IQ of about 92 which is 8 points below the mean. The population of nonoffenders averages more than 100 points, which puts the gap at about 10 points.

- It appears that this gap is typically larger on verbal than on performance (i.e. nonverbal) intelligence tests (Wilson & Herrnstein, 1985).
- More serious or more chronic offenders generally have lower scores than more casual offenders (Lipsitt et al, 1990).
- It was reported that the eventual relationship between IQ and repeated offending is presaged in early IQ scores.

Insofar as early identification is concerned, it should be noted, however, that Jensen (1980) posits that up to about 4 or 5 years of age, measures of IQ are not of much use in predicting later IQ. In fact, he holds that you will get a better prediction of the child's IQ at age 15 by knowing his parents' IQ than by any test of the child given before age 5. Between ages 5 and 10, however, the tests rapidly become more predictive of adult IQ. After the age of 10, the IQ score is essentially stable within the constraints of measurement error. When changes are observed, there is usually an obvious explanation
such as illness before the test or severe emotional disturbance at the time of one or both of the tests.

Herrnstein & Murray (1996) have used the terms “cognitive class” and IQ in the charts below. Data for these charts have been derived from the National Longitudinal Study of Youth (NLSY) in the United States, a group of over 12,000 American youths who were aged 14 to 22 in 1979. A self-report system was used. The self-report system was considered advantageous because it presumably includes information about the crimes of offenders whether or not they've been caught. Also, it is thought to circumvent any biases in the criminal justice system, which some people argue, contaminate official criminal statistics. Further, the authors were aware that different racial groups have different response patterns, and therefore chose one ethnic group and one gender (white males) in an attempt to circumvent potential difficulties in this area. Further, it was found that the self-report data on undetected crimes reinforced the conclusions drawn from the data on detected crimes.

Concerning levels of criminal involvement, their research showed that between a third and a half of all juveniles are stopped by police at some time or another. However, just 5 to 7 percent of the population account for about half the total number of arrests (Wolfgang, Figlio, Sellin, 1972; Wilson & Herrnstein, 1985). In the case of the National Longitudinal Survey of Youth (NLSY), 34 percent admitted having been stopped at some time by the police (for anything other than a minor traffic violation). Only three percent of all white males, however, accounted for 50 percent of the self-reported stops by police. Additional data shows that:
only 18 percent of white males had ever formally been charged with an offense
less than three percent of them accounted for half the charges
two percent accounted for half of the convictions

The NLSY sample of white males mirrors the scientific literature in general in showing a sizable IQ gap between offenders and nonoffenders at each level of involvement with the criminal justice system. Table 4 presents the average IQs of white males who had been involved with the criminal justice system at the time of interviews in 1980. Those who reported they had never been stopped by police were above average in intelligence (with a mean IQ of 106). Those who were sentenced to a correctional facility had a mean IQ of 93. Close to a standard deviation separated those who had never been stopped by the police from those who went to prison.

Table 4.
Criminality and IQ Among White Males

<table>
<thead>
<tr>
<th>Deepest Level of Contact with the Criminal Justice System</th>
<th>Mean IQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>106</td>
</tr>
<tr>
<td>Stopped by the police but not booked</td>
<td>103</td>
</tr>
<tr>
<td>Booked but not convicted</td>
<td>101</td>
</tr>
<tr>
<td>Convicted but not incarcerated</td>
<td>100</td>
</tr>
<tr>
<td>Sentenced to a correctional facility</td>
<td>93</td>
</tr>
</tbody>
</table>

Derived from Herrnstein & Murray (1996)
Data from the NLSY noted also where the person was interviewed. The question was posed as to whether in all the interviews from 1979 to 1990, the young man was ever interviewed in a correctional facility. Table 5 shows that the odds were approximately twelve times greater for Class V than for white males in the top quintile of IQ.

Table 5.
The Odds of Doing Time for Young White Males

<table>
<thead>
<tr>
<th>Cognitive Class</th>
<th>Percentage Ever Interviewed in a Correctional Facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>I Very bright</td>
<td>1</td>
</tr>
<tr>
<td>II Bright</td>
<td>1</td>
</tr>
<tr>
<td>III Normal</td>
<td>3</td>
</tr>
<tr>
<td>IV Dull</td>
<td>7</td>
</tr>
<tr>
<td>V Very Dull</td>
<td>12</td>
</tr>
<tr>
<td>Overall</td>
<td>3</td>
</tr>
</tbody>
</table>

Derived from Herrnstein & Murray (1996)

When criminal involvement is sorted by cognitive class, as shown in Table 6, involvement with the criminal justice system rises as IQ falls from Classes I through IV. At the Class V level, with IQ under 75, respondents are stopped, charged and convicted at lower rates than the Class IVs but are sentenced to correctional facilities at rates exactly the same. People at the lowest levels of intelligence are likely to be underrepresented in
criminal statistics in general and the NLSY bears this out as well. The authors speculate that it may be that the offences of the Class IVs are less frequent, but more serious. Another possibility is that this group is just less competent in getting favourable treatment from the criminal justice system.

Table 6.
The Odds of Getting Involved with the Police and Courts for Young White Males

<table>
<thead>
<tr>
<th>Cognitive Class</th>
<th>Stopped by the Police</th>
<th>Booked for an Offence</th>
<th>Convicted of an Offence</th>
<th>Sentenced to Incarceration</th>
</tr>
</thead>
<tbody>
<tr>
<td>I Very bright</td>
<td>18</td>
<td>5</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>II Bright</td>
<td>27</td>
<td>12</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>III Normal</td>
<td>37</td>
<td>20</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td>IV Dull</td>
<td>46</td>
<td>27</td>
<td>21</td>
<td>7</td>
</tr>
<tr>
<td>V Very Dull</td>
<td>33</td>
<td>17</td>
<td>14</td>
<td>7</td>
</tr>
<tr>
<td>Overall</td>
<td>34</td>
<td>18</td>
<td>9</td>
<td>3</td>
</tr>
</tbody>
</table>

Derived from Herrnstein & Murray (1996)

It was also found that on two diverse measures of crime, the importance of IQ dominates socioeconomic background for white men. The role of socioeconomic background was found to be independent of meeting either of two criteria of criminality. Criteria included 1) self-reports, and 2) whether the interviewee was incarcerated at the
time of the interview. The self-reports from the NLSY survey were from 1980 (when the youths were still in their teens or just out of them) and the second measure was from correctional facility information between 1979 and 1990. For both measures, after controlling for IQ, the men's socioeconomic background had little or nothing to do with crime. In the case of the self-report data, higher socioeconomic status was associated with higher reported crime after controlling for IQ. In the case of incarceration, the role of socioeconomic background was close to nil after controlling for IQ and statistically insignificant. By either measure of crime, a low IQ was a significant risk factor.

In the small amount of data available, the IQs of uncaught offenders are not measurably different from the ones who get caught (Moffitt & Silva, 1988; Hindelang et al, 1981; Hirschi & Hindelang, 1977; Wilson & Herrnstein, 1985). Further, among those who have criminal records, there is still a significant negative correlation between IQ and frequency of offending; i.e., among people who had been caught, for those with higher IQs, offending rates were lower and for those with lower IQs offending rates were higher (Reischel & Magnusson, 1988). Lower intelligence is correlated with higher levels of offending, and it is also true that higher levels of intelligence mitigate the influences of other predispositional factors. In other words, higher intelligence acts as a protective factor.

Intelligence as a Protective Factor

It does indeed appear that a high cognitive ability can protect a person from becoming a criminal even if the other precursors are present. Kandel et al. (1988)
followed a sample of almost 1,500 boys born in Copenhagen, Denmark between 1936 and 1938. Sons whose fathers had a prison record were almost six times as likely to have a prison record themselves by the age of 34-36 as the sons of fathers without a police record. Among these high risk sons, the ones who had no police record at all had IQ scores one standard deviation higher than the sons who had a police record. Further the study showed that there was no significant correlation between IQ and socioeconomic status. The investigators concluded that IQ remained a significant predictor of offending even after the effects of parental SES and the sons' own level of education were entered as covariates in an analysis of covariance.

The protective power of elevated intelligence is also evident in a New Zealand study by White, Moffitt & Silva (1989). Boys and girls were divided on the basis of their behaviour by the age of 5 into high and low risk for delinquency. High-risk children were more than twice as likely to become delinquent by their mid-teens as low-risk children. The high-risk boys or girls who did not become delinquent were the ones with the higher IQs. This was also true for the low-risk boys and girls--the non-delinquents had higher IQs than the delinquents.

A Hawaiian study followed several hundred children for several decades (Werner & Smith, 1982). Some of the children were identified by their second birthday as being statistically “vulnerable” to behavioral disorders or delinquency. These were children suffering from two or more of the following circumstances:

- they were being raised in troubled or impoverished families
- parents were addicted to alcohol
• parents had eight years or less of schooling
• parents were psychologically disturbed
• presence of prenatal or perinatal physiological stress

Two-thirds of these children succumbed to delinquency and other psychological disturbances. Among factors which distinguished the one-third who grew up without becoming delinquent or disturbed were higher intellectual ability scores than the average for the vulnerable group. Intelligence, therefore, appears to work as a protector against behavioural disorders. Other predispositional factors are also at work, as seen below.

Male/Female Differences

The statistically distinguishable personal characteristics of criminals go far beyond IQ. There is also the enormous difference between the levels of male and female criminality, a factor which cannot be explained by intellectual differences between the sexes. A study of 4,462 U.S. military veterans showed that those who ranked in the top ten percent for testosterone had significantly increased antisocial behaviour: assault, physical aggression, going AWOL, trouble with parents, teachers and peers. They also had increased drug and alcohol use and multiple sexual partners. Similar findings have been found in hockey rinks and gyms. The higher the testosterone, the more aggressive the hockey player. Among 26 judo contenders, the ones with the highest testosterone levels were the most verbally aggressive and the least likely to tolerate frustration.

This relationship between maleness, testosterone and aggression is found in almost every species, not just in humans. As with serotonin, there appears to be a bi-
directional relationship with testosterone, resulting in increased testosterone levels for the
winners and decreased testosterone for the losers. These results have been found in tennis
players, college wrestlers and chess players. It appears the brain has evolved to respond
to testosterone with aggression and competitiveness and to respond to competition and
aggression by producing testosterone. Thus, children who are naturally high in
testosterone are more likely to be competitive and aggressive. Each victory they score
results in an additional burst of testosterone which lifts their willingness to compete
(Archer, 1991). This fairly straightforward relationship is not seen in the next factor
considered, about which considerable controversy was generated some time ago.

Chromosomal Variations

The XYY syndrome is a chromosomal defect (extra chromosome on the 23rd
pair) in males, given that XX represents a regular female, and XY a regular male. One
out of 1,000 males is XYY, a person with an extra Y "male" chromosome. It has been
found that XYY males are more likely to be institutionalized in prisons or mental
hospitals than are XY males. XYY males are moderately less intelligent than XY males
and because there are more XYY males are in prison, that chromosomal defect was said
to cause aggression and violence. However, although there are more XYY males in
prison, they are not any more likely than normal XY males to be convicted of a violent
crime. Thus, there is no evidence that XYY males are more violent than XY males, as
was thought in the earliest stages of this research. This hypothesis did not stand up to
scrutiny. The final factor reviewed is maternal health during pregnancy.
Maternal Health during Pregnancy

One of the first sets of related studies on fetal conditions dates back to the 1940s. Ezra Susser, an epidemiologist at Columbia University, realized that a famine experienced by the Dutch at the end of the second world war had created conditions for a study of maternal malnutrition and filial psychopathology. The Dutch kept meticulous records of their food rations during the war and Dutch males were subject to psychological scrutiny when conscripted into the army at age 18. In addition, the famine was short and geographically restricted, meaning that a natural control group was available for a comparison. Among other things, Dr. Susser traced the incidence of antisocial personality disorder (described as a pathological tendency to behave badly towards one's fellow humans). The experimental group consisted of more than 100,000 men and women and findings reported in the Journal of the American Medical Association showed that antisocial personality disorder occurred more than twice as often in those whose mothers were starved in the early part of their pregnancies in comparison to mothers who were reasonably well-fed (The Economist, 1999). Susser's study provides one indicator that maternal health and well being can influence prenatal development in general and antisocial behaviour in particular. A great deal of additional research is available due to the tremendous strides made in the physical sciences during the last few decades and more will be found on this subject in the concluding chapter of this paper.

In summary, this review of genetic/neurological factors has implicated a number of variables in the development of antisocial behaviour disorders. Raine (2000) found
that a structural brain deficit (i.e., a reduction in prefrontal gray matter volume) predicted antisocial group membership independent of psychosocial risk factors. Studies showed that serotonin signalling is correlated in a bi-directional relationship with aggressive behaviours. IQ was correlated with offending status and it was also seen that IQ operated as a protective factor against the development of antisocial behaviour even when other risk factors were high. The male hormone, testosterone, was implicated in aggression and competitiveness, but the XYY chromosomal variation was not found to be a relevant factor. Finally, maternal health has been found to be important in one early major longitudinal study. The foregoing is necessarily a selective sampling of the more "popular" indicators. The field of psychopathology contains a vast and growing literature well beyond the scope of this particular inquiry.

One of the positive outcomes of relevant inquiry, however, is the understanding that a monumental sweep of variation is before us and single-factor explanations are not likely to provide conclusive answers. As a case in point concerning genetic relationships, it is instructive to note that each cell's DNA (all 23 chromosomes) is made up of three billion nucleic bases. The total number of working genes is thought to be somewhere between 50,000 and 150,000. Much of the picture is not yet known. Each of the 100 trillion cells in the human body has a complete complement of that body's DNA. The DNA from just one set of these chromosomes contains all the information needed to make and operate a human and, if laid out in one continuous strand, would be six feet long. That is the DNA from just one of our body's trillions of cells. British geneticist Steve Jones makes this incredible fact even more astounding by pointing out that if the
DNA from one human were stretched out in a line, it would go to the moon and back eight thousand times (Wright, 1998). In view of these staggering figures, it seems nothing short of miraculous that we have come this far in our understanding of human physiology. The next section in this chapter considers the impact of psychosis and neurological impairments.

**Psychosis and Neurological Impairments**

Recent research has shown, that the vast majority of people who are violent do not suffer from mental illnesses. However, there is a small subgroup with severe and persistent mental illnesses who are at risk of becoming violent, with violence defined as threatening, hitting, fighting or otherwise hurting another person. The APA *Statement on Prediction of Dangerousness* says that psychiatrists have no special knowledge or ability with which to predict dangerous behaviour. Studies have shown, for example, that even with patients in which there is a history of violent acts, predictions of future violence will be wrong for two out of every three patients Long (1997).

There are numerous variables in the biopsychosocial nature of mental illnesses. The variables break down as follows:

- **Biological variables** - arising in part from disturbances in brain or other body system chemistry
- **Psychological variables** - manifesting in disturbances in thought and/or emotion
- **Social variables** - arising in part from patients' social and cultural environment: how they are raised, the norms of their community, and what sorts of stress
they face in their everyday lives.

Long (1997) points out that these variables are always considered in treatment plans, but they are not always helpful in predicting behaviour. Research suggests that people with neurological impairments and psychoses are at greater risk of becoming violent (Volkow & Tancredi, 1987; Tardiff & Sweillam, 1980; Krakowski & Czobor, 1980; and Krakowski, Convit & Jaeger, 1989).

Neurological impairments stemming from diseases such as Huntington's chorea or from head injuries which damage the brain can have psychological effects, interfering with a person's ability to interpret what is real, and with normal interpersonal relationships. Psychosis is a severe mental disorder characterized by gross impairment in reality testing, typically shown by delusions, hallucinations, disorganized speech, or disorganized or catatonic behaviour. Most often, psychosis stems from schizophrenia, but it can also be a symptom in other delusional disorders and some mood disorders, and can arise from abnormalities in brain structure.

Not all people with psychosis or brain injuries become violent, nor will they become violent under all circumstances. A person who is ill with schizophrenia, for instance, is not psychotic all the time. The symptoms of the illness may wax and wane, and do vary in intensity. Medication and a supportive, nonstressful environment can often largely control these symptoms. In contrast, however, neurological difficulties tend to present on-going problems. Krakowski & Czobor (1994) have found that people with neurological impairments are more likely to be habitually violent.
Mulvey (1994) points out that it is the delusional beliefs associated with schizophrenia that can lead to a violent outburst. However, not all people with schizophrenia have delusional beliefs that others are persecuting or controlling them.

Swanson, Holzer, Ganju, et al., (1990) reported additional findings about schizophrenia (which is known to affect about one in every 100 people). Compared to the general population, people with schizophrenia were:

- nearly nine times more likely to have fought with others or to have hit their partner in the past year
- eight times more likely to have hit their child, and
- nearly 22 times more likely to have used a weapon.

**Violence and Mental Illness**

Studies of violence and mental illness (Gelles, 1987) have shown that people with mental illness who come from violent backgrounds are often violent themselves. This finding echoes the incidence among the general population. It appears that the conditions which increase the risk of violence are the same, whether a person has a mental illness or not. For instance, Estroff, Zimmer, Lachiocotte & Benoit (1994) found that chaotic, violent family environments in which alcohol or substance use is common, ongoing conflict among family members, and a controlling atmosphere (are) associated with violence by persons with mental illness. The investigators also concluded that this tradition is also predictive of violence in the general population.

The increased risk, therefore, that a person will become violent is most associated
with the social part of the biopsychosocial equation. The following variables put people at increased risk for violent behaviour:

- A psychosis or a neurological impairment
- An unpredictable, stressful environment
- Little family and community support
- Little personal understanding of his or her illness.

Unfortunately, these conditions are often common in large urban areas, as is stress which tends to aggravate the symptoms of most mental illnesses. An illness which causes hallucinations, delusions, bizarre ideas and behaviour can severely limit a person's opportunities in relationships and at work. With all of these factors at play, stress is frequently an unavoidable part of a mentally ill person's life. Very often people with severe mental illness end up living in reduced circumstances, in low-paying temporary jobs, living in dangerous neighborhoods or, much too often, on the streets. Needless to say, symptoms are exacerbated.

A vicious cycle ensues. Stressful conditions, combined with the unpleasant side effects of some antipsychotic medications, may cause patients to take medications irregularly or to stop taking them entirely. They may begin abusing street drugs in an effort to more actively numb the pain of the illness. This usually worsens symptoms and counteracts the effects of prescribed medications. Because the illness has already eroded their ability to perceive reality, this combination of conditions can increase the risk of violence. Investigations of people with mental illness (Estroff, Zimmer, Lachiocotte & Benoit, 1994) revealed that respondents who became violent first felt threatened by the
people they attacked. They did not perceive themselves to be more threatening or hostile to others than other mentally ill individuals polled by the survey who did not behave violently.

It is generally family members who are most at risk of a violent act committed by a mentally ill person. Within the family, the person most involved with the ill person's care (usually the mother) is most at risk, with the violent person usually being a son or a spouse. Tardiff's (1984) study of patients admitted to psychiatric hospitals found that, among those who had attacked people during the time close to their admission, 65 percent of the sample had attacked a family member. Strangers or people outside the ill person's social network are much more rarely targets of violence.

Psychological Factors

As knowledge of behaviour grows, the boundaries between psychology and biology, physiology and neurology rapidly disappear. Interdisciplinary approaches have become the norm, assisted greatly by sophisticated technology for both investigation and analysis. It is therefore understood that while this section is entitled psychological factors, it is essentially just one convenient way to organize the data. There are others which would be equally appropriate because of the strong interrelationship of the elements which influence behaviour. The first topic considered is an internalizing disorder in girls.

Depression and Conduct Disorder in Girls

Bardone, Moffitt, Caspi, et al. (1996) first assessed adolescents at the age of 15
and then again at 21 years of age in adulthood to examine the continuity of depression and conduct disorder during that time. The results showed that two-thirds of the girls diagnosed as depressed at age 15 had some mental disorder at age 21. Compared to girls at 15 who did not have a mental health disorder, those girls who were depressed at 15 showed several other differences:

*Characteristics of girls at age 21 after being diagnosed as depressed at age 15:*

Compared to healthy girls, depressed girls 6 years after their diagnosis, were:

- 4.5 times more likely to be depressed, 4.5 times more likely to have an anxiety disorder, less likely to have a school certificate, more likely to have experienced pregnancy, more likely to have at least one child, 2.5 times more likely to have cohabited, more likely to have used multiple drugs.

*Characteristics of girls at age 21, after being diagnosed as conduct disordered at age 15:*

Compared to healthy girls, conduct disordered girls were:

- more likely to experience a higher level of antisocial personality disorder, 3.8 times more likely to have a substance dependence disorder, more likely to have engaged in illegal behaviour, 2.7 times more likely to have an anxiety disorder

- 3.8 times more likely to lack a school certificate, 4 times more likely to have experienced pregnancy, 4.7 times more likely to have at least one child, 5.5 times more likely to have cohabited, 5.2 times more likely to have cohabited with multiple partners, more likely to have used multiple drugs, more likely to have left home at an earlier age, 3.7 times more likely to have used two or more sources of social welfare assistance, 3.1 times more likely to be victims of physical violence
from their partners, 3.9 times more likely to be involved in mutually violent relationships.

*Characteristics of girls earlier diagnosed with both depression and conduct disorder:*

These girls, compared to healthy girls, were more likely to:

- have an anxiety disorder, lack a school certificate, have experienced pregnancy
- have at least one child, have cohabited, have used multiple drugs.

Table 7.

Characteristics of Girls at Age 21 after Various Diagnoses at Age 15

<table>
<thead>
<tr>
<th>Diagnosis: Depressed</th>
<th>Diagnosis: Conduct Disorder</th>
<th>Diagnosis: Depression and Conduct Disorder</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.5 times more likely to be depressed</td>
<td>more likely to experience a higher level of antisocial personality disorder</td>
<td>more likely to have an anxiety disorder</td>
</tr>
<tr>
<td>4.5 times more likely to have an anxiety disorder</td>
<td>3.8 times more likely to have a substance dependence disorder</td>
<td>more likely to lack a school certificate</td>
</tr>
<tr>
<td>less likely to have a school certificate</td>
<td>3.8 times more likely to lack a school certificate</td>
<td>more likely to have experienced pregnancy</td>
</tr>
<tr>
<td>more likely to have experienced pregnancy</td>
<td>4 times more likely to have experienced pregnancy</td>
<td>more likely to have at least one child</td>
</tr>
<tr>
<td>more likely to have at least one child</td>
<td>4.7 times more likely to have at least one child</td>
<td>more likely to have cohabited</td>
</tr>
<tr>
<td>2.5 times more likely to have cohabited</td>
<td>5.5 times more likely to have cohabited with multiple partners</td>
<td>more likely to have used multiple drugs</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>---------------------------------------------------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td>more likely to have used multiple drugs</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This study points to the difficulties associated with depression and/or conduct disorder in adolescent girls. Two factors only (i.e. depression and conduct disorder) were analyzed for this investigation. It was pointed out, however, that other negative life aspects may also have been present and that those additional difficulties would also have influenced these poor outcomes. Nevertheless, these are formidable statistics and results such as this bear careful scrutiny. While not part of this particular study, there is empirical evidence that abuse (particularly sexual abuse for girls) is also associated with many of the outcomes found; i.e. substance abuse, anxiety, multiple partners, pregnancy, early parenthood, and social assistance. It is not difficult to see how a vicious cycle ensues when these girls themselves become parents.

**Posttraumatic Stress Disorder in Female Juvenile Offenders**

Cauffman, Feldman, Waterman & Steiner (1998) examined the presence of posttraumatic stress disorder (PTSD) in female juvenile offenders, and its effect on social and emotional adjustment. Diagnostic criteria for PTSD include a history of exposure to a traumatic event and symptoms such as a high level of anxiety, depression, aggression,
various physical complaints and withdrawal. Table 8 below shows the outcomes of violence in the lives of these girls.

Concerning the presence of trauma, results of the study indicated:
70% of female offenders had been exposed to some form of trauma, 74% reported being hurt or in danger of being hurt, 76% reported witnessing someone being severely injured or killed, 60% reported being raped or in danger of being raped.

Concerning socio-emotional adjustment:
Those suffering from PTSD were found to exhibit higher levels of distress and lower levels of self-restraint.

Concerning PTSD:
65.3% of the female offenders had experienced symptoms of PTSD some time in their lives; 48.9% of the incarcerated female offenders were experiencing the symptoms of PTSD at the time of the study.
Table 8.

Outcomes for Female Offenders Suffering from Post-traumatic Stress Disorder (PTSD)

<table>
<thead>
<tr>
<th>The Presence of Trauma</th>
<th>Socio-emotional Adjustment</th>
<th>Post-traumatic Stress Syndrome</th>
</tr>
</thead>
<tbody>
<tr>
<td>70% has been exposed to some form of trauma</td>
<td>Those suffering from PTSD exhibited higher levels of distress and lower levels of self-restraint</td>
<td>65.3% of female offenders had experienced symptoms of PTSD at some time in their lives</td>
</tr>
<tr>
<td>74% reported being hurt or in danger of being hurt</td>
<td></td>
<td>48.9% of the incarcerated female offenders were experiencing the symptoms of PTSD at the time of the study.</td>
</tr>
<tr>
<td>76% reported witnessing someone being severely injured or killed</td>
<td></td>
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<tr>
<td>60% reported being raped or in danger of being raped</td>
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Although there have been numerous studies on psychopathology in male juvenile offenders, there are far fewer studies of female offenders. The results of this study showed that female juvenile offenders are 50 percent more likely to suffer from PTSD than male juvenile offenders. It has been suggested that females are generally more likely to develop symptoms of PTSD than males after a traumatic incident. The authors surmise that a possible explanation is that females are more likely to be victims of violence than witnesses. Being a victim is more likely to cause mental health problems than being a
witness. Insofar as clinical implications are concerned, the researchers noted that the presence of PTSD may make rehabilitative efforts less successful. When females are referred for attention problems (ADHD), the problem may be PTSD has manifested as impulsivity.

This study shows how trauma contributes to anxiety, depression, aggression, withdrawal and various physical complaints in young female offenders. Treatment should be directed at the source of the problem as well as its symptoms. Systematic and systemic educational processes concerning rape would be one recommendation. Below is the formal diagnostic criteria for post-traumatic stress syndrome from the DSM IV.

*Diagnostic Criteria - Post Traumatic Stress Syndrome*

(or Post-Traumatic Disorder) (DSM IV, 1994)

A. The person has been exposed to a traumatic event in which both of the following were present:

1. the person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others.

2. the person's response involved intense fear, helplessness, or horror.

Note: In children, this may be expressed instead by disorganized or agitated behavior.
B. The traumatic event is persistently re-experienced in one (or more) of the following ways:

1. Recurrent and intrusive distressing recollections of the event, including images, thoughts, or perceptions. Note: In young children, repetitive play may occur in which themes or aspects of the trauma are expressed.

2. Recurrent distressing dreams of the event. Note: In children, there may be frightening dreams without recognizable content.

3. Acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative flashback episodes, including those that occur on awakening or when intoxicated). Note: In young children, trauma-specific reenactment may occur.

4. Intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event

5. Physiological reactivity on exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event

C. Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before the trauma), as indicated by three (or more) of the following:

1. Efforts to avoid thoughts, feelings, or conversations associated with the trauma
2. Efforts to avoid activities, places, or people that arouse recollections of the trauma
3. Inability to recall an important aspect of the trauma
4. Markedly diminished interest or participation in significant activities
5. Feeling of detachment or estrangement from others
6. Restricted range of affect (e.g., unable to have loving feelings)
7. Sense of a foreshortened future (e.g., does not expect to have a career, marriage, children, or a normal life span)

D. Persistent symptoms of increased arousal (not present before the trauma), as indicated by two (or more) of the following:
   1. Difficulty falling or staying asleep
   2. Irritability or outbursts of anger
   3. Difficulty concentrating
   4. Hypervigilance
   5. Exaggerated startle response

E. Duration of the disturbance (symptoms in Criteria B, C, and D) is more than 1 month.

F. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
Associated Features: depressed mood, somatic/sexual dysfunction, guilt/obsession, addiction.

It is often useful to review the formal diagnostic criteria of these various disorders because of the overlap of symptoms. Teachers, for example, who see a child who is unable to concentrate, is distracted, angry and agitated and has scattered thinking might not associate those symptoms with PTSD, or might associate them ADHD. Referral of symptomatic children for proper medical diagnosis is essential given the intricacies of these disorders.

**Emotional Distress and the Exposure to Violence**

Farrell & Bruce (1997) surveyed 436 grade six students from three schools in impoverished areas of the Southeastern United States. The average age of the children was 10 to 12 years and 94 percent identified themselves as Black or African Americans. The results of the survey indicated that:

- 91% of girls and 92% of boys had seen someone being beaten up
- 16% of girls and 37% of boys had experienced being beaten up
- 30% of girls and 42% of boys had seen someone being shot.

The exposure to violence led to increased violent behaviour in girls but not in boys. There was no indicated increase in emotional distress in boys or girls as a result of exposure to violence. The authors speculated that because children in poverty stricken
areas of large cities are frequently exposed to violence on a regular basis, desensitization may have precluded an effect on their emotional state. The authors also suggest that because boys reported more frequent exposure to violence and higher initial rates of violent behaviour than girls, they may have reached a plateau.

If desensitization is indeed the case, it may not only be due to the actual witnessing of these violent occurrences, but perhaps also to the combined result of exposure to violent video games and television programs, including cartoons which often have a high violence quotient.

**Damaging Effects of Exposure to Violence**

Quite different results concerning the emotional impact of exposure to violence have been shown in similar studies such as those by Berman, Kurtines, Silverman, et al. (1996) and Hinton-Nelson, Roberts & Snyder (1996).

A study of youths in a Miami high school found that:

- 93% had witnessed at least one violent act
- 43% had been the victim of at least one violent act
- 41% had witnessed a murder.

Youths exposed to violent acts had, on average, 10 symptoms of post-traumatic stress disorder (PTSD) out of a possible 20 on a PTSD Reaction Index. These symptoms included the following:
• distressing recollection of the event
• difficulty in going to sleep
• outbursts of anger

Approximately 35% met all of the criteria of PTSD. Surprisingly, there was no
difference in the number of symptoms between witnesses and victims. Not surprisingly
perhaps, the symptoms of anxiety and depression were highest when the children knew
the perpetrator or the victim of violence. Girls tended to show higher levels of
depression, anxiety and sleep problems. Boys tended to exhibit more behavioural
problems. Those children who had been repeatedly exposed to violence expected to die a
violent death and believed that the average American would die a violent death.

Data indicated that those who had social support had less severe symptoms.
Interestingly, *perceived* availability of social support was more effective at predicting
positive outcomes than social support actually received. The findings from these studies
are important for a couple of reasons: they show the dramatic impact of living in violent
environments and they also highlight the importance of having social support systems
readily available for at-risk children in distressed neighbourhoods.

**Effects of Television Violence**

The American Academy of Child and Adolescent Psychiatry (2000) reports that
American children watch an average of three to fours hours of television daily. It has been
found that television is a powerful influence in developing value systems and shaping
behavior. Shamsie, Nicholl and Madsen (2000) report:
It is estimated that during childhood and adolescence an individual will observe 180,000 rapes, murders, armed robberies and assaults on television. A meta-analysis of more than 1,000 articles on the effects of television violence indicates that viewing violence on television increases aggression and antisocial behaviour and decreases prosocial behaviour (p. 29).

Because much of today's television programming is violent, this is cause for concern. Virtually hundreds of studies of the effects of TV violence on children and teenagers have found that children may:

- Become "immune" to the horror of violence
- Gradually accept violence as a way to solve problems
- Imitate the violence they observe on television, and
- Identify with certain characters, victims and/or victimizers.

The American Academy of Child and Adolescent Psychiatry (2000) details that:

Extensive viewing of television violence by children causes greater aggressiveness. Sometimes, watching a single violent program can increase aggressiveness. Children who view shows in which violence is very realistic, frequently repeated or unpunished, are more likely to imitate what they see. The impact of TV violence may be immediately evident in the child's behavior or may surface years later, and young people can even be affected when the family atmosphere shows no tendency toward violence.

The Academy concludes that violence on television is not the only source connected with the development of aggressive or violent behavior, but it is a significant
contributor. It is recommended that parents moderate the amount of time children watch TV, regardless of content, and that they address the issue of violence in family discussions with the children. Parental input concerning violence on television is important and is discussed briefly in the conclusion of this chapter. The Academy recommends that parents seek professional help if they have serious difficulties setting limits, or deep concerns about how their child is reacting to television.

Violence in the Media - Psychological Outcomes

The weight of evidence from much empirical research is strong and consistent: viewing and/or preference for violent television is related to aggressive attitudes, values and behaviors. This result was true for the studies conducted when television was new, and the measures of children's aggression were teachers' ratings. It is still true for more recent studies when the measures of aggressiveness have become more sophisticated.

Robinson and Bachman (1972), for example, found a relationship between the number of hours of television viewed and adolescent self-reports of involvement in aggressive or antisocial behavior. Atkin, Greenberg, Korzeny, and McDermott (1979) used a different measure of aggressive behavior. They gave nine to thirteen-year-old boys and girls situations such as the following: “Suppose that you are riding your bicycle down the street and some other child comes up and pushes you off your bicycle. What would you do?” The response options included physical or verbal aggression along with options to reduce or avoid conflict. These investigators found that physical or verbal aggressive responses were selected by 45 percent of heavy-television-violence viewers compared to
only 21 percent of the light-violence viewers.

Liebert & Baron (1972) investigated young children's willingness to hurt another child after viewing videotaped sections of aggressive or neutral television programs. The boys and girls were in two age groups, five to six and eight to nine-years-old. The aggressive program consisted of segments of *The Untouchables*, while the neutral program featured a track race. Following viewing, the children were placed in a setting in which they could either facilitate or disrupt the game-playing performance of an ostensible child playing in an adjoining room. The main findings were that the children who viewed the aggressive program demonstrated a greater willingness to hurt another child.

In a later study, Sheehan (1983) followed two groups of Australian children, first- and third-graders, for a three-year period. He found that for the older group, then in grades three through five, both the overall amount of violence viewing and the intensity of viewing were significantly related to the child's level of aggressive behavior as rated by their classmates.

In a study focused on adults, Phillips (1983) investigated the effects of the portrayal of suicides in television soap operas on the suicide rate in the United States using death records compiled by the National Center for Health Statistics. He found, over a six-year period, that whenever a major soap opera personality committed suicide on television, within three days there was a significant increase in the number of female suicides across the nation.

Cartoons often contain considerable violence. Several studies have demonstrated
that even one exposure to a violent cartoon leads to increased aggression (Ellis & Sekyra, 1972; Lovaas, 1961; Mussen & Rutherford, 1961; Ross, 1972). Moreover, Hapkiewitz and Roden (1971) found that boys who had seen violent cartoons were less likely to share their toys than those who had not seen the aggressive cartoon. It is interesting to note that increased aggressive behavior is found as a result of either extended or brief exposure to televised violence.

Field studies have examined whether heightened aggressiveness observed in the experimental settings spills over into daily life. Stein and Friedrich (1972) presented 97 preschool children with a diet of either antisocial, prosocial, or neutral television programs during a four-week viewing period. The antisocial diet consisted of twelve half-hour episodes of Batman and Superman cartoons. The prosocial diet was composed of twelve episodes of Mister Roger's Neighborhood (a program that stresses such themes as sharing possessions and cooperative play). The neutral diet consisted of children's programming which was neither violent nor prosocial.

The children were observed through a nine-week period, which consisted of three weeks of pre-viewing baseline, four weeks of television exposure, and two weeks of post-viewing follow-up. All observations were conducted in a naturalistic setting while the children were engaged in daily school activities. Behaviour was recorded and classified as antisocial (pushing, arguing, breaking toys) or prosocial (helping, sharing, cooperative play).

The overall results indicated that children who were judged to be initially somewhat aggressive became significantly more so as a result of viewing the Batman and
Superman cartoons. Children who had viewed the prosocial diet of Mister Roger's Neighborhood were less aggressive, more cooperative and more willing to share with other children.

Parke et al., (1977) found similar heightened aggression among both American and Belgian teenage boys following exposure to aggressive films. In the Belgian study—which replicated the findings of two similar studies conducted in the United States—teenage boys residing in a minimum-security institution were presented with a diet of either aggressive or neutral films. This study was broken into three phases: 1) one-week baseline observation period, 2) followed by one week of film viewing, and 3) a one-week post-viewing observation period. There were four cottages involved. Two cottages contained boys with high levels of aggressive behavior; two contained boys with low levels of aggression. One of each pair of cottages was assigned to the aggressive film condition, while the other two viewed the neutral films. Only the two initially high-aggressive cottages were affected by the movies; those boys who saw the aggressive movies increased their level of aggression, while those who were exposed to the neutral films reduced their level of aggression.

Another interesting experiment was devised by researchers (Joy, Kimball & Zabrack, 1986) to measure the effect of three conditions: 1) no television versus 2) limited programming versus 3) American multichannels in a Canadian community. They compared children living in a before/after television town with their peers in two other towns where television was well established. The three towns were called Notel (no television reception), Unitel (receiving only the government-owned commercial
channel-CBC), and Multitel (receiving the CBC and three American commercial networks-ABC, CBS and NBC). Children in all three towns were evaluated at Time 1 when Notel did not receive a television signal and again at Time 2 when Notel had had television for two years (it had received the government channel-CBC). Results indicated that there were no differences across the three towns at Time 1, but at Time 2 the children from the former Notel town were significantly more aggressive, both physically and verbally, than the children in the Unitel or Multitel towns. It is interesting to note that only children in the Notel town manifested any significant increase in physical and verbal aggression from Time 1 to Time 2.

Children's facial expressions were found to be indicative of their psychological state and the outcome of that psychological state. A somewhat alarming picture has been presented by Ekman et al., 1972 concerning the way children watch televised violence. For example, Ekman and his associates found that those children whose facial expressions, while viewing televised violence, depicted the positive emotions of happiness, pleasure, interest or involvement were more likely to hurt another child than were those children whose facial expressions indicated disinterest or displeasure. This study showed short-term outcomes of children's responses to violence on television.

The longer-term influence of television has been studied by Lefkowitz et al., (1972) with an investigation spanning a ten-year period. In this instance, Eron (1963) had previously demonstrated a relationship between preference for violent media and the aggressive behaviour of these children at the age of eight. The investigators sought to determine if this relationship would hold at later ages. To answer it, they obtained
peer-rated measures of aggressive behaviour and preferences for various kinds of television, radio and comic books when the children were eight years old. Ten years later, when the members of the group were eighteen years old, the investigators again obtained measures of aggressive behaviour and television program preferences.

The results for boys indicated the following:

- Preference for television violence at age eight was significantly related to aggression at age eighteen
- Preference for television violence at age eighteen was not related to aggression at age eighteen.

A follow-up to this investigation (a 22-year longitudinal study by (Huesmann, Eron, Lefkowitz & Walder, 1984) found significant causal-correlations between violence viewing at age eight and serious interpersonal criminal behaviour at age 30.

In a different approach, a study by Belson (1978) substantiated other long-term effects and has helped pin down which types of programs have the most influence. Belson interviewed 1,565 youths who were a representative sample of thirteen to seventeen-year-old boys living in London. These boys were interviewed on several occasions concerning the extent of their exposure to a selection of violent television programs broadcast during the period 1959-71. The level and type of violence in these programs were rated by members of the BBC viewing panel. It was thus possible to obtain, for each boy, a measure of both the magnitude and type of exposure to televised violence (e.g. realistic, fictional, etc.).

Each boy's level of violent behaviour was determined by his own report of how
often he had been involved in any of 53 categories of violence over the previous six months. The degree of seriousness of the acts reported by the boys ranged from only slightly violent aggravation such as taunting, to more serious and very violent behaviour such as:

- I tried to force a girl to have sexual intercourse with me
- I bashed a boy's head against a wall
- I threatened to kill my father
- I burned a boy on the chest with a cigarette while my mates held him down.

Approximately 50 per cent of the 1,565 boys were not involved in any violent acts during the six-month period. However, of those who were involved in violence, 188 (12 percent) were involved in ten or more acts during the six-month period. When Belson compared the behaviour of boys who had higher exposure to televised violence to those who had lower exposure (and had been matched on a wide variety of possible contributing factors), he found that the high-violence viewers were more involved in serious violent behaviour. Moreover, he found that serious interpersonal violence is increased by long-term exposure to (in descending order of importance):

- Plays or films in which close personal relationships are a major theme and which feature verbal or physical violence
- Programs in which violence seems to be thrown in for its own sake or is not necessary to the plot
- Programs featuring fictional violence of a realistic nature
- Programs in which the violence is presented as being in a good cause
Violent westerns.

In summarizing the extent of the effects of television and film violence on the viewer Comstock & Paik (1991) posit four dimensions for consideration.

- **Efficacy** relates to whether the violence on the screen is rewarded or punished
- **Normativeness** refers to whether the screen violence is justified or lacks any consequences
- **Pertinence** describes the extent to which the screen violence has some similarity to the viewer’s social context; and
- **Suggestibility** concerns the predisposing factors of arousal or frustration.

Drawing on these four dimensions, Comstock & Paik suggest situations for which we have experimental evidence of the negative effects of film or television violence:

1. Rewarding—or lack of punishment—for those who act aggressively (e.g., Bandura, Ross, & Ross, 1963).
2. The aggressive behaviour is seen as justified (e.g., Berkowitz & Rawlings, 1963).
3. There are cues in the portrayed violence which have similarity to those in real life (e.g., Donnerstein & Berkowitz, 1981).
4. There is similarity between the aggressor and the viewer (e.g., Rosekrans, 1967).
5. Strong identification with the aggressor, such as imagining being in their place (e.g., Turner & Berkowitz, 1972).
6. Behaviour that is motivated to inflict harm or injury (e.g., Geen & Stonner, 1972).
7. Violence in which the consequences are lowered, such as no pain, sorrow, or
remorse (e.g., Berkowitz & Rawlings, 1963).

8. Violence that is portrayed quite realistically or seen as a real event (e.g., Atkin, 1983).

9. Violence which is not subjected to critical commentary (e.g., Lefcourt, et al., 1966).

10. Portrayals which seem to please the viewer (e.g., Ekman, et al., 1972).

11. Portrayals of violence that are unrelieved by other events (Lieberman, 1975).

12. Violence that includes physical abuse in addition to or compared to verbal aggression (e.g., Liebermann, 1975).

13. Violence that leaves the viewer in a state or arousal (e.g., Zillmann, 1971).

14. When viewers are predisposed to act aggressively (e.g., Donnerstein & Berkowitz, 1981).

15. Individuals who are in a state of frustration after they view violence, either from an external source or from the viewing itself (e.g., Worchel, Hardy, & Hurley, 1976).

In summary, the relationship between television violence and aggression is clear, although it is a complex one with many variables. Many experts in the field conclude that the problem is serious and requires definitive action. The Department of Mental Health in New York city provides one example of a positive way of addressing the problem with a program titled Youth Against Violence: Choose to Defuse. Public service announcements provide anger management techniques and interpersonal communication skills. They shows real life situations where youth model prosocial behaviour in
situations of conflict. Shamsie, Nicholl & Madsen (2000) comment that “If violence is a public health concern, then we should use the media to fight against violence in the same way as we use it against smoking (p. 29).

The next section of this chapter details neurological elements related to violence and antisocial behaviour. Children who live in families with these difficulties are often at risk.

**Consequences of Violence Suffered in Childhood**

(Torrey, 1994) summarizes research which has found that:

1) Violence suffered in childhood in the forms of sexual or physical abuse or neglect has long term consequences which may include psychiatric or emotional problems.

2) This violence may also lead to behavioural problems in later life.

3) Familial violence tends to occur in cycles.

4) The cycles of violence are passed on from generation to generation and remain remarkably intact.

Supports for families with these difficulties can prevent children from being victims of violence. It is known that as long as people maintain their medication, those with serious mental illnesses are no more dangerous than the general population. Also, people who are receiving regular psychotherapeutic support from a mental health professional are much less likely to commit a violent act. A supportive, understanding, unrestrictive environment can help healing and avoid relapse. Wherever there is potential
for a cycle of violence, action is required. The next section deals with ADHD, a disorder with different, but potentially detrimental effects if untreated.

Attention Deficit Hyperactivity Disorder (ADHD)

Introduction

ADHD is a disorder characterized by three main symptoms: 1) the inability to concentrate and stay on task, 2) impulsivity and 3) hyperactivity. The symptoms are usually present before a child enters the school system and many parents believe that their child is just more active than others. When the child enters school, however, the problems come to the forefront. The diagnosis of ADHD is not always easy and can be complicated by symptoms of anxiety related to a family disturbance and/or oppositional defiant disorder. Shamsie (1994) reports that six percent of children suffer from ADHD and the disorder is seven times more common in boys than girls. A strong genetic component is suspected.

Sherman et al. (1997) studied identical and fraternal twins with two versions of ADHD: a) predominantly inattentive and b) predominantly hyperactive-impulsive. Their findings concurred with other studies that both types of ADHD are largely genetically determined, although environment may play a role.

Children with ADHD are prone to develop Oppositional Defiant Disorder; one study showed a comorbidity rate of 20 percent. Further, many ADHD children develop antisocial and violent behaviour as evidenced by another study which showed that 45% were convicted of at least one serious offence in adolescence - 58 percent of lower class,
36 percent of middle class and 52 percent of upper class (Satterfield, Hoppe & Schell, 1982). Shamsie (1994) notes the girls with ADHD seldom develop antisocial and violent behaviour and even for boys, antisocial behaviour can be avoidable with good management.

The Diagnostic and Statistical Manual, Version IV, (DSM IV) by the American Psychiatric Association defines ADHD as follows:

A. Either (1) or (2):

1. Six (or more) of the following symptoms of inattention have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:

   Inattention
   a) often fails to give close attention to details or makes careless mistakes in schoolwork, work, or other activities.
   b) often has difficulty sustaining attention in tasks or play activities
   c) often does not seem to listen when spoken to directly
   d) often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (not due to failure to understand instructions)
   e) often has difficulty organizing tasks and activities
   f) often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework)
   g) often loses things necessary for tasks or activities (e.g., toys, school assignments, pencils, books, or tools)
h) is often easily distracted by extraneous stimuli
i) is often forgetful in daily activities

2. Six (or more) of the following symptoms of hyperactivity-impulsivity have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:

Hyperactivity

a) often fidgets with hands or feet or squirms in seat
b) often leaves seat in classroom or in other situations in which remaining seated is expected
c) often runs about or climbs excessively in situations in which it is inappropriate (in adolescents or adults, may be limited to subjective feelings of restlessness)
d) often has difficulty playing or engaging in leisure activities quietly
e) is often “on the go” or often acts as if “driven by a motor”
f) often talks excessively

Impulsivity

g) often blurts out answers before questions have been completed
h) often has difficulty awaiting turn
i) often interrupts or intrudes on others (e.g., butts into conversations or games)

B. Some hyperactive-impulsive or inattentive symptoms that cause impairment were present before age 7 years.
C. Some impairment from the symptoms is present in two or more settings (e.g., at school [or work] and at home).

D. There must be clear evidence of clinically significant impairment in social, academic, or occupational functioning.

E. The symptoms do not occur exclusively during the course of a pervasive developmental disorder, schizophrenia, or other psychotic disorder and are not better accounted for by another mental disorder (e.g., mood disorder, anxiety disorder, dissociative disorder, or a personality disorder). (DSM IV, 1994).

Current positions on ADD diagnosis and treatment tend toward one of two extremes. One (minority) view is that ADD represents a unique temperament and personality with both useful and less useful aspects, and that the child’s environment ought to adapt to the child’s needs and temperament. This position is reflected in such works as The Myth of the ADD Child: 50 Ways to Improve Your Child’s Behaviour and Attention Span Without Drugs, Labels or Coercion (Armstrong, 1995) and No More Ritalin: Treating ADHD Without Drugs (Block, 1996). This position sanctions medication only as a last resort or in a crisis situation, and in combination with multiple non-drug interventions.

At the other end of the spectrum, Hallowell and Ratey’s (1994) Driven to Distraction puts ADHD within the medical model and supports Ritalin as the primary treatment for this “brain-based” disorder. Hallowell is a child psychiatrist in private practice and Ratey is an adult psychiatrist on the faculty at Harvard. Both are self-
acknowledged adults with ADD and both use Ritalin.

A balanced view is offered by Diller (1998, p. 217) who is "committed to a multicausal nonpathological view of ADD in which both brain chemistry and environment contribute to children's problem behaviours." This position sees symptoms of ADHD as a living imbalance between a child's inherent capabilities and the demands of his or her environment. It also allows that medication is sometimes required to help children learn to cope with socially approved expectations and responses.

A recent work by Gabor Maté (1999), a Canadian physician with ADHD and the father of three ADHD children, challenges the genetic "myth" surrounding ADD and makes a strong case for the role the social/emotional environment plays in the genesis and healing of the disorder. Maté states that "People with ADHD are hypersensitive. That is not a fault or a weakness of theirs, it how they were born. It is their inborn temperament. That, primarily, is what is hereditary about ADHD. Genetic inheritance by itself cannot account for the presence of ADHD features in people, but heredity can make it far more likely that these features will emerge in a given individual, depending on circumstances. It is a disorder that is transmitted not through heredity but through sensitivity. In most cases, ADD is caused by the impact of the environment on particularly sensitive infants." (p.59).

Maté discounts a purely genetic explanation and posits that the sensitivity being passed on is not a disease, but a trait of intrinsic survival value to human beings. He concludes that "sensitivity is transmuted into suffering and disorders only when the world is unable to heed the exquisitely tuned physiological and psychic responses of the
sensitive individual.” (p. 62) Maté notes that sensitive children come to be called “difficult” because adults do not understand this sensitivity and do not know how to respond to the emotional reactions which may seem more severe than warranted under given circumstances. This is due to the fact that like hypersensitive instruments, sensitive children register and record even minute changes in their emotional environment. This is simply how their nervous systems react and is not a matter of choice for them. Maté explains that “it is as if they had invisible antennae projecting in every direction, picking up and conducting into their bodies and their minds the psychic emanations around them.” (p. 61). Unlike instruments, however, the sensory equipment of human beings is not easily turned off. These children will pick up and conduct into their bodies and their minds the psychic emanations around them. They may have no conscious awareness of this, but their moods and behaviours are like “real-time instantaneous computer printouts of the psychological atmosphere in the home.”

Diller (1998) feels that in most situations, psychosocial interventions should be tried first and if problems have not improved after several weeks, only then should medication be offered. He also cautions that “the broad and ambiguous nature of the symptom complex called ADHD limits the value of a diagnosis. The diagnosis alone may do little to guide decisions about treatment, can turn into a label or a stigma, and can lead to feelings of hopelessness or resignation. Diller believes that proper evaluation entails spending a considerable amount of time with both parents and child and gathering information from other sources such as family doctors, teachers, siblings and the results of previous assessments. This may involve three or four fifty-minute office sessions, both
with and without the child present. When the medication is indicated, immediate and positive results often provide a great relief for both the child and his or her parents.

**Related Symptoms:**

The following data concerning ADHD show the extent of difficulties associated with this disorder:

- 50 to 80% of ADHD children suffer from other disorders, the most common being oppositional defiant disorder (ODD) and conduct disorder (CD)
- 15 to 20% of ADHD children also have a mood disorder
- 25% have anxiety disorders
- 20% have learning disabilities

Children with ADHD are more likely to perform poorly in school.

One study showed that of children diagnosed with ADHD,

- 56% needed academic tutoring
- 30% repeated a grade
- 35% were placed in a special class
- 18% had a reading disability
- 21% had an arithmetic disability (Faraone, Biederman et al., 1993).

Another study (Shamsie, 1994) showed that:

- 66% of children with ADHD continue to have symptoms in adulthood and
- 23% developed antisocial personality disorder.
There are three main types of ADHD:

1) Primarily inattentive - failure to work well with details, to sustain attention, to follow instructions to complete tasks in an organized fashion.

2) Primarily impulsive and hyperactive - often fidgets with hands or feet or squirms in seat, moves about or talks excessively, and has difficulty playing quietly.

3) Combined impulsivity, hyperactivity and inattentiveness.

The highest levels of inappropriate and aggressive behaviour are found with a combination of the three factors. Children who only have attention problems (ADD) have relatively low risk of developing severe and persistent antisocial behaviour (MacDonald & Achenbach, 1996). Among ADHD boys with high defiance levels, 43% had been arrested as adolescents (Biederman, Faraone, Milberger & Jetton, et al., 1996).

Taylor et al. (1996) showed that ADHD in childhood predisposes a child to develop oppositional defiant disorder (ODD) and conduct disorder (CD) in adolescence. ADHD children with oppositional defiant disorder (ODD) fall into two groups: 1) those who are likely to develop Conduct Disorder and 2) those who are not. Hechtman (1996) showed that those who are more likely to develop Conduct Disorder have the following characteristics:

- family members with antisocial disorders
- anxiety, mood, and other psychiatric disorders
- developed ODD at an earlier age
have many more symptoms of ODD.

Children with ADHD are more likely to have bipolar disorder (BPD). BPD is the simultaneous occurrence of mania and depression or separate episodes of mania and depression in the same individual. In one study, 30 out of 140 children (21 percent) with ADHD had a history of BPD. ADHD children with BPD had higher rates of other psychiatric disorders such as conduct disorder, oppositional defiant disorder, and anxiety disorder, as well as severely impaired psychosocial functioning (Biederman, Faraone, Mick, Wozniak et al. 1996).

Biederman et al. (1996) researched familial and psychosocial risk factors for ADHD, examining data from 40 ADHD-diagnosed children, 120 normal controls and close biological relatives of both groups. Results concluded many ADHD children also exhibited the following: conduct disorder, anxiety disorders and major depressive disorders. It was found that relatives of ADHD children were at a higher risk for ADHD. In addition, they tended to have the following: other antisocial disorders, major depressive disorders, anxiety disorders, substance dependence.

In a study on twins, Levy et al. (1997) suggest that impulsivity, inattention, and hyperactivity are present in all people and should be viewed as a continuum. When the manifestation of these traits becomes extreme, deviating from acceptable norms, intervention is required. Concerning the range of acceptable norms, high technology video recordings have been used to help determine differences and provide benchmarks for professionals and parents. It was found that children with ADHD moved twice as frequently and covered an area four times wider than normal children. They moved their
heads two to three times more often than normal children, which correlated significantly with teachers' overactivity-inattention ratings on the Conner's scale (Teicher et al., 1996).

Hyperactivity, in fact, is the symptom by which ADHD is most uniquely recognized. Halperin et al. (1992) studied 102 children between 6.5 and 13 years of age, comparing three groups.

- 31 children with ADHD (ADHD group)
- 53 children with disorders other than ADHD (non-ADHD group)
- 18 children with no disorder (control group)

Both the ADHD and non-ADHD group were patients at a child psychiatry outpatient clinic. The study excluded medicated children and those with evidence of psychosis and/or neurological disorder. The normal controls from a neighbourhood school (all males), were similar to the patients on ethnic and socioeconomic factors. Performance tests and activity level measures were used to measure inattention, impulsivity, and hyperactivity levels. The results were as follows:

**Inattention:** Both ADHD and non-ADHD patients were more inattentive than normal controls. There was no difference in inattention between ADHD and non-ADHD patients.

**Impulsivity:** ADHD patients were more impulsive than the normal controls, but not more impulsive than non-ADHD patients.

**Hyperactivity:** ADHD patients were more active than both the non-ADHD patients and the normal controls. There was no difference in the activity level of non-ADHD patients and normal controls. This suggests that while
inattention is not uniquely an ADHD symptom, hyperactivity is the strongest symptom.

In terms of related difficulties with inattention, impulsivity and hyperactivity, Schachar et al. (1995) studied impairment of cognitive functions in ADHD-diagnosed children. The study sought to determine whether ADHD-diagnosed children are able to inhibit an ongoing action and execute an alternative response. Cognitive functions were defined as the ability to initiate, inhibit, and alter actions according to circumstances. It was discovered that children with ADHD were deficient in both inhibiting an ongoing action and executing an alternative response. Those children with pervasive ADHD (symptoms both in school and home) had greater deficits than those who had symptoms only in school. The least deficits were found with children with symptoms only at home.

ADHD and Outcomes

Satterfield et al. (1994) examined whether or not the defiance level of boys with ADHD, at roughly 8 years of age, could be used to predict adolescent outcome 9 years later. The results indicated that of ADHD boys with high defiance levels, 43 percent had been arrested 9 years later on felony charges. Of ADHD boys with low defiance levels, 26 percent had been arrested 9 years later on felony charges and of non-ADHD boys, only 8 percent had been arrested on similar charges 9 years later. This study should alert parents, teachers and other professionals that the presence of defiance in children with ADHD does increase the risk for the development of antisocial behaviour in adolescence.

In a related investigation, Fergusson & Horwood (1995) found that it was not so
much the presence or absence of defined symptoms as DSM-III-R criteria, but rather the severity of symptoms in disruptive behaviour disorders (ADHD, conduct disorder, and oppositional defiant disorder) which predicted the future behaviour of adolescents.

*Academic Performance*

Significant differences in the academic performance of children with ADHD and those without ADHD were found by Faraone et al. (1993). These are illustrated below.

Table 9.

**Differences in the Academic Performance of Children with and without ADHD**

<table>
<thead>
<tr>
<th>Problem</th>
<th>ADHD</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Needed academic tutoring</td>
<td>56%</td>
<td>25%</td>
</tr>
<tr>
<td>Repeated a grade</td>
<td>30%</td>
<td>13%</td>
</tr>
<tr>
<td>Placed in special class</td>
<td>35%</td>
<td>2%</td>
</tr>
<tr>
<td>Reading disability</td>
<td>18%</td>
<td>4%</td>
</tr>
<tr>
<td>Arithmetic disability</td>
<td>21%</td>
<td>8%</td>
</tr>
</tbody>
</table>

Evidence of familial and genetic linkages was present also; this study found that the siblings of children with ADHD were more likely to have received tutoring and been placed in special classes than siblings of children without ADHD.

*Self-Esteem and Psychosocial Adjustment*

Given the difficulties noted above, it might be surmised that ADHD-diagnosed children would have problems with self-esteem and psychosocial adjustment.

Slomkowski et al. (1995) followed middle-class boys who were diagnosed with
hyperactivity between the ages of 6 and 12. At ages 18 and 26 he showed that compared to non-hyperactive boys, the hyperactive boys had:

- lower self-esteem
- lower psychosocial adjustment
- lower IQ
- lower educational achievement and
- lower occupational attainment

Manzicopoulos et al. (1994) followed 232 children (116 at risk for academic and behaviour problems and 116 controls) from kindergarten through to the second grade. The study attempted to examine the characteristics of children at risk for behaviour and academic problems and to differentiate between those with attention problems and those without.

Level of risk was assessed using a screening instrument for perceptual delays that was administered in kindergarten. Intelligence, academic achievement, socioeconomic status, and behaviour were also assessed. Children were divided into three groups:

1) those with ADD who were at risk for academic and behaviour problems
2) those at risk for academic and behaviour problems but who did not have high levels of attention problems
3) a control group who were not at risk for academic and behaviour problems

Results indicated that at-risk children with attention problems:

- exhibited higher rates of conduct problems, inattention, immaturity, hyperactivity, and anxious-withdrawn behaviour
• began exhibiting behaviour problems as early as kindergarten
• were more likely to be perceived as deviant as they progressed from kindergarten to second grade
• had lower levels of cognitive abilities and
• were equally distributed across socioeconomic status groups.

At-risk children without attention problems were over-represented in the lower socioeconomic level. Children who were not at risk had higher academic achievement scores. In general, boys were perceived as more deviant, inattentive, immature, and hyperactive than girls. Given the scope of the difficulties suffered by children with ADHD, it would seem that early universal screening processes in schools would be important. Children with ADHD need to be identified early so that parents and teachers can respond with appropriate professional help. Much of their suffering and isolation can be alleviated with proper treatment, which will be discussed in the conclusion.

ADHD and Parental Stress

While Baldwin et al. (1995) noted that the stress that parents and caregivers of children with ADHD experience is only in part due to the symptoms of their children, Murphy & Barkley (1996) measured the extent of that stress. Baldwin et al (1995) found that stress experienced by the parents in their study was due to:

• financial problems and family disharmony
• lack of social support and socioeconomic disadvantage.
Parents of children with ADHD were likely:

- to be younger and less educated
- to be of lower socioeconomic status
- to show more symptoms of psychological distress and
- to have lower levels of marital satisfaction.

It was suggested that interventions dealing with these difficulties should accompany prescriptions for medication and behaviour management programs for the children.

Murphy and Barkley (1996) observed that parents of children with ADHD experienced more marital disturbances and were more likely to exhibit antisocial behaviour. They themselves were also more likely to have ADHD (i.e., 15% to 20% of mothers and 20% to 30% of fathers). Mothers of ADHD children showed evidence of low self-esteem, depression, and social isolation.

Biederman et al. (1995) showed that approximately 30% of children with ADHD have a history of enuresis - described in the DSM-III-R as "repeated voiding of urine during the day or night into bed or clothes, whether involuntary or intentional".

The foregoing studies show that support and education for parents of ADHD children is as important as treating the child.

**ADHD, ODD and CD - Comorbidity Risks**

*Hyperactivity and Conduct Disorder*

Taylor, Schachar, et al. (1986) delineated characteristics of hyperactivity and conduct disorder in an examination of 64 boys, age 6 to 10, who were referred to
psychiatric clinics for aggressive, antisocial and hyperactive behaviour or any combination of the three. Assessments included parent interviews about the child's behaviour at home, Conners Teacher Rating Scale, a psychiatric interview and lab and clinical measures of activity, attention, cognitive performance, psychosocial background, and family relationships.

Hyperactivity was defined as *restless inattentive behaviour* and was associated with the following:

- greater activity
- younger age
- poorer cognitive performance and
- neurological abnormalities.

Conduct disorder and defiance were defined as *non-compliant antisocial conduct* and were associated with poor family relationships and adverse social factors. Results also underlined that hyperactivity and ADD are not the same. In fact, there was little correlation between a child's hyperactive behaviours and his level of attention. The authors postulate that attention deficit is a very specific problem which may only partially contribute to hyperactive behaviour.

*ADHD and Conduct Disorder*

In an exploration of two groups of elementary school children, juniors (7 and 8 year olds) and seniors (11 and 12 year olds), McArdle et al. (1995) showed that at-risk or
maladjusted children were more likely to suffer from a combination of hyperactivity and conduct disorder than children who were not at risk. They discovered that almost all juniors with conduct disorder exhibited symptoms of hyperactivity. In contrast, a large proportion of seniors with conduct disorder exhibited no symptoms of hyperactivity. Further, the link between hyperactivity and conduct disorder seemed to decline with age (i.e., the rate of conduct disorder among hyperactive juniors was 28.4% compared to 12.9% for seniors). In comparison to one in two seniors, one in six juniors suffering from pervasive hyperactivity also had a psychiatric disorder.

Abikoff & Klein (1992) also studied ADHD and conduct disorder and their comorbidity (combined ADHD and conduct disorder), pinpointing several distinguishing features of the disorders as well as overlaps. They observed that

**ADHD** is more strongly associated with:

- lower IQ
- lower academic performance and
- lower rates of parental psychopathology.

**Conduct disorder**, on the other hand, is more strongly associated with:

- poor parental supervision
- maternal rejection and
- paternal alcohol abuse.

The presence of both ADHD and conduct disorder is associated with:

- more severe symptoms
- more peer rejection
• a greater chance of adult antisocial personality disorder
• greater levels of parental psychopathology
• psychosocial adversity in the family and
• less attention to social cues prior to making attributional decisions.

The table below summarizes this data for comparative purposes.

Table 10.
Distinguishing Etiological Features of ADHD and Conduct Disorder

<table>
<thead>
<tr>
<th>ADHD</th>
<th>Conduct Disorder</th>
<th>ADHD and Conduct Disorder</th>
</tr>
</thead>
<tbody>
<tr>
<td>lower IQ</td>
<td>poor parental supervision</td>
<td>more severe symptoms</td>
</tr>
<tr>
<td>lower academic performance</td>
<td>maternal rejection</td>
<td>more peer rejection</td>
</tr>
<tr>
<td>lower rates of parental psychopathology</td>
<td>paternal alcohol abuse</td>
<td>a greater chance of adult antisocial personality disorder</td>
</tr>
<tr>
<td></td>
<td></td>
<td>less attention to social cues prior to making attributional decisions</td>
</tr>
</tbody>
</table>

With data derived from Ontario Child Health Study, a large community survey of psychiatric disorders among children aged 4 to 16 years in Ontario, Szatmari et al. (1989) compared pure ADHD, pure conduct disorder and a combination of the two in order to view patterns of correlates (variables associated with either disorder). A review of gender correlates showed that:
• males with ADHD were 15 times more likely to have conduct disorder than males without.
• females with ADHD were 40 times more likely to have conduct disorder than females without.

For females the degree of overlap between ADHD and conduct disorder among girls was so great that ADHD and conduct disorder did not appear to be independent disorders. The male/female ratio for pure conduct disorder was two to one regardless of diagnosis or age.

A review of age factors revealed that children with ADHD in the sample tended to be younger than children without. Children with conduct disorder tended to be older than children without. Children 4 to 10 years of age had approximately twice the prevalence (frequency of occurrence) of pure ADHD than pure conduct disorder. Children 12 to 16 years of age had approximately twice the prevalence rate of pure conduct disorder as pure ADHD. Approximately 40% of children and adolescents with ADHD also had conduct disorder.

Concerning family and developmental variables, the three diagnostic groups: 1) pure ADHD, 2) pure conduct disorder, 3) mixed ADHD and conduct disorder) differed in their patterns of correlates.

• poverty and overcrowding were approximately four times more common in pure conduct disorder than in pure ADHD children.
• difficulty remembering was five times more common in pure ADHD than in children with conduct disorder.
It would appear that children with combined ADHD and conduct disorder are similar to and different from the pure groups and should be considered separately. There are further differences in the psychosocial and developmental correlates of ADHD and conduct disorder which will be highlighted below.

**ADHD, ODD and CD**

Biederman et al. (1996 b) studied risk factors for the development of conduct disorder (CD) of children with both attention-deficit hyperactivity disorder (ADHD) and oppositional defiant disorder (ODD). The following risk factors were found for children with both ADHD and ODD:

- their family members have antisocial disorders
- they have anxiety, mood, and other psychiatric disorders
- they develop ODD at an earlier age
- they have many more symptoms of ODD.

A sample of 275 children (obtained by recruiting parents) was assembled by Keller et al (1992) to study comorbidity (diagnoses of more than one disorder), recovery time, probability of relapse after recovery, and rates of chronicity among children diagnosed with Attention Deficit Disorder (ADHD), Oppositional Defiant Disorder (ODD), or Conduct Disorder (CD).

The recruited families fell into three groups: 1) a parent seeking treatment for an affective illness, 2) a parent with an affective illness who was not seeking treatment, and 3) no affective illness. Criteria for inclusion in the study included a) Caucasian descent,
b) the mother's ability to speak English, and c) the availability of information on both biological parents. In addition, the biological mother and her children had to be living together and be available for personal interviews, and the family had to have at least one child between 6 and 19 years of age.

Fifty-one children in the sample (34 boys, 17 girls) were diagnosed with a disruptive behavioural disorder (i.e., ADHD, ODD, or CD). Of that number, 35 percent had two or more disruptive disorders. Of these children, the following breakdowns were evident:

- 39 percent were diagnosed with ADHD and ODD
- 39 percent with CD and ODD
- 17 percent with ADHD and CD and
- 5% with all three.

Only one child did not have at least one additional psychiatric diagnosis besides the above-mentioned three; i.e., a diagnosis in addition to ADHD, ODD, and/or CD.

Findings showed that:

- 44 percent of these children were diagnosed with substance use disorder
- 22 percent had anxiety symptoms, and
- 50 percent had depressive symptoms.

These problems had roots in the family system. Only 14 percent of the children examined had parents with no history of psychiatric illnesses; 20 percent of children had a parent with a psychiatric diagnosis, and 67 percent had both parents with psychiatric diagnoses.
The three disruptive disorders had a mean age of onset of 8 years of age. Up to the time of the interviews, the mean duration of episodes was six years. Fourteen percent of the children were expected to remain ill 15 years after first onset.

Sixty-five percent of children only had one diagnosed disruptive disorder. The mean age of onset for children diagnosed with ADHD-only was 4 years of age, compared to 11 years of age for CD-only, and 12 years of age for ODD-only children. The mean duration of episodes ranged from three for CD-only children to eight for ADHD-only children. The probability of relapsing into some form of psychopathology after remission from ADHD, CD, or ODD ranged from 67 percent for ODD-only to 80 percent for CD-only children. The authors note that this high frequency of comorbidity (84 percent of children diagnosed with disruptive behavioural disorders also had at least one other diagnosis) was related to exacerbation of difficulties. The presence of comorbidity is associated with:

- increased seriousness of the disorders
- decreased academic performance
- interpersonal difficulties
- substance abuse
- the risk of criminal activities.

Keller and his colleagues assert that early detection of disruptive disorders can play a large role in identifying adolescents who are at risk for further disorders. Early active interventions should be developed to treat these disorders and reduce children's susceptibility to other psychiatric disorders.
ADHD and Delinquency

Satterfield et al. (1982) followed two groups of public school children (110 with ADHD and a control group of 88 children without ADHD) matched for age, gender, race, and IQ for eight years. Comparisons of the number of serious crimes (robbery, burglary, grand theft, grand theft automobile, and assault with a deadly weapon) were then tallied. Measurements below across lower, middle, and upper socioeconomic classes respectively.

Arrested at least once for a serious offence:

- ADHD group: 58 percent, 36 percent, 52 percent
- Control group: 11 percent, 9 percent, 2 percent

Multiple arrests for a serious offence:

- ADHD group: 45 percent, 25 percent, and 28 percent
- Control group: 6 percent, 0 percent, and 0 percent

Institutionalization rate (all classes):

- ADHD group: 25 percent
- Control group: 10 percent

These findings concur with previous studies that children with ADHD are at an increased risk for serious teenage delinquency.

ADHD and Substance Abuse

Biederman et al. (1997), found no differences in the presence of psychoactive-substance-use disorders for adolescents with or without ADHD. Lynskey & Fergusson (1995) showed that ADHD children with no conduct problems were not prone to
substance abuse, while children with conduct problems were more likely to use tobacco, alcohol and illicit drugs. Hechtman, Weiss & Perlman (1984) concluded that the overall use of non-medical drugs (alcohol, hashish, hallucinogens, etc.) was low. Drug use of young adults with a history of hyperactivity was not as serious as anticipated from the results of previous studies.

ADHD and CD - Presence of Parental Psychopathology

Lahey et al. (1988) investigated parents of children with Conduct Disorder and parents of children with ADHD to determine a) whether Conduct Disorder and ADHD are separate disorders with different patterns of familial transmission and b) whether the combination of Conduct Disorder and ADHD in children increased the severity and persistence of antisocial behaviour. DSM-III diagnoses of both the participants (aged 6 to 13) and their parents were obtained through interviews with the participants, with at least one of their biological parents and with participants’ teachers. Four groups comprised the sample: children with 1) Conduct Disorder only, 2) ADHD only, 3) both Conduct Disorder and ADHD, and a control group with neither disorder.

Mothers:

The results showed that compared to mothers of children with ADHD, mothers of children with Conduct Disorder were more likely to:

- receive diagnoses of a Major Depressive Condition and
- Antisocial Personality Disorder (APD)
- have a history of aggressive behaviour
• to have been arrested and served a prison sentence
• to have driven while intoxicated.

_Fathers:_

Fathers of children with Conduct Disorder were more likely to:

• have received a diagnosis of Antisocial Personality Disorder (APD)
• have abused alcohol and drugs
• have engaged in aggressive behaviour
• have been arrested and served a prison sentence
• have driven while intoxicated.

Children with Conduct Disorder were more likely than other clinically-referred children to have parents who were diagnosed with Antisocial Personality Disorder (APD). Every father who abused substances also exhibited APD.

In marked contrast, ADHD was not found to be associated with any parental DSM-III diagnoses. It was concluded that Conduct Disorder and ADHD are discrete syndromes. Conduct Disorder is associated with parental psychopathology, but ADHD is not. There is a familial transmission pattern for antisocial behaviour. The children who exhibited the most aggressive and law-breaking activities (those with both Conduct Disorder and ADHD) had fathers who displayed the same sort of antisocial behaviour. Lower socioeconomic level was also associated with the Conduct Disorder group and the lowest SES (socioeconomic status) level was found with combined Conduct Disorder and ADHD group. Thus, SES may be either a catalyst or a potentiating factor or both.
ADHD - Adult Outcomes

Conduct Disorder

Manuzza et al. (1989) investigated whether ADHD is a predisposing factor of antisocial personality disorder and criminality with a group of 103 males (aged 16 to 23 years) who had been diagnosed as cross-situationally hyperactive at the ages 6 to 12 and 100 normal controls. Follow-up interviews with 98 percent of the original group, including controls, were conducted 12 years after original diagnoses were made and focused on the mental health of both groups. In particular, the authors determined that 27 percent of the original hyperactive group and eight percent of the control group had met the criteria for Conduct Disorder at follow-up.

Four groups were therefore formed:
1) hyperactive participants with Conduct Disorder
2) hyperactive participants without Conduct Disorder
3) controls with Conduct Disorder and
4) controls without Conduct Disorder.

Arrest records at the 3-year follow up indicated that hyperactives had three times as many arrests, and ten times as many multiple convictions over controls. Theft was the most frequent type of offence for both hyperactives and controls. Age at first arrest was the same for both hyperactives and controls; however, hyperactives were significantly older at the most recent arrest.

Two-thirds of all participants with an ongoing Conduct Disorder had been
arrested, almost all of them with evidence of CD in young adulthood. No difference in
the history of arrests was found between hyperactives with Conduct Disorder and controls
with Conduct Disorder. With regard to arrest records of all participants without Conduct
Disorder, there were more hyperactives than nonhyperactives arrested, although this
finding was not statistically significant.

During the follow-up when hyperactives and controls were 16 to 23 years of age,
27 percent of those who had been diagnosed with childhood hyperactivity, and 8 percent
of those with no childhood hyperactivity had developed Conduct Disorder. Hyperactivity
in childhood may therefore predispose the child to develop Conduct Disorder in ado-
lescence, which may continue as criminal activity in adulthood.

*Educational and Occupational Achievement*

Manuzza et al. (1993) followed 103 boys diagnosed with ADHD at ages 6 to 12
and investigated status at two points: late adolescence when they were between 16 and 23
years of age, and adulthood. A control group of 100 adolescents was recruited for the
adolescent follow-up. The hyperactive and control group had similar race, age, and
socioeconomic status. Controls were only recruited if they had no behaviour problems
reported by their teacher before the age of 13.

Results for the hyperactive group indicated that:

- participants had a lower socioeconomic status
- had completed 2.5 years less schooling
• had lower occupational rankings with fewer holding high-level professional positions
• were almost 10 times more likely to suffer from antisocial personality disorder
• were 5 times more likely to suffer from drug abuse
• more frequently had ADHD symptoms

Also, there was greater indication of comorbid substance use disorder among the hyperactive group with Antisocial Personality Disorder. Hyperactive boys with at least one ADHD symptom in adulthood were seven times more likely to suffer from drug abuse than those with no ADHD symptoms.

Persistence of ADHD

In a 4-year study of children with ADHD to measure persistence of the disorder, Biederman et al. (1996) found that 85% continued to meet the criteria for ADHD at the end of 4 years while 15% did not. Factors which predicted the persistence of ADHD were as follows:

• family history of ADHD
• psychosocial adversity
• including parental psychopathology
• low socioeconomic status
• lack of family intactness
• family conflict
• comorbidity (presence of other disorders including conduct, mood, and anxiety
disorders).

Of those who no longer met the criteria at the end of 4 years, 50% stopped meeting the criteria in childhood and 50% in adolescence.

Herrero, Hechtman, & Weiss (1994) examined 66 participants who were diagnosed as hyperactive between the ages of 6 and 12 in order to determine the levels of antisocial behaviour and Antisocial Personality Disorder. Follow-up data on four groups was obtained from these children at 5-year intervals over a 15-year period:

1) those who never had antisocial problems
2) those who continued to have antisocial problems from childhood to adulthood
3) those who had initial antisocial problems that did not continue
4) those with antisocial problems initially and in adolescence, but not in adulthood.

An examination of participants at the 15 year follow-up (at age approximately 26 years) indicated generally that the presence of antisocial and aggressive behaviour at the time of initial evaluation is a significant factor in determining antisocial adult outcome. Specific findings were:

- Hyperactivity is a risk factor for an antisocial outcome in boys, but not in girls.
- The absence of antisocial behaviour at the initial assessment is predictive of the absence of antisocial behaviour in adulthood.
- In children who have aggressive and antisocial behaviour, the absence of family mental health problems may protect the child from developing antisocial behaviour in adulthood.
An earlier study by Weiss, Hechtmann, Milroy & Perlman (1985) indicated that:

- Approximately 50 percent of the children with ADHD continued to have the symptoms of the disorder in adulthood.
- Over 20 percent of the ADHD children developed antisocial personality in adulthood.

These findings reinforce the need to help both these children and their parents since absence of family mental health problems may serve as a protective factor against the development of antisocial behaviour.

**Conclusion**

**Summary of the Chapter**

**Genetic Links with Antisocial Behaviour**

Theories concerning genetic links with antisocial behaviour are derived from twin studies. These studies compare the criminal behavior between identical (monozygotic) twins (MZ twins come from the same egg) and fraternal (dizygotic) twins (DZ twins come from two eggs). It has been found that there is a greater similarity of criminal behavior between identical twins than between fraternal twins. Because identical twins are genetically identical, and because of their similarity of criminal behavior, it is suspected that criminal behavior may have genetic links.

Further studies have looked at the criminal behavior of children who have been adopted. This allows for the separation of biological effects on criminal behavior from the environmental effects on criminal behavior. If the behavior of both the adopted child
and the biological parent behavior is criminal, then there is support for a genetic basis for crime. Studies conducted in Europe show that the criminality of a biological father is a good predictor of criminality in an adopted offspring. These same studies, however, provide some support for environmental influences of crime. This is seen in the fact that the likelihood of criminal behavior is greatest in an adopted child if both the biological and adoptive parents are criminal.

The Role of Serotonin

The role of serotonin has been studied in relation to violent and aggressive behavior. Interesting differences have been found concerning its correlation with dominant members of species and distinctions have also been made between assertiveness and aggression. Assertiveness or self-efficacy enables us to get what we need, and it correlates with high brain-serotonin levels. Aggression (either uncontrolled or rageful violence) whether against self or others—is unassertive, disruptive, and generally ineffectual. Lower levels of serotonin are correlated with increased aggressive and impulsive behaviour.

Neurological Factors

Frank Elliott is a retired professor of neurology at the University of Pennsylvania who spent much of his career observing and treating brain disorder in violent criminals. He is gratified that social scientists and physical scientists have today combined forces to address the complex problem of antisocial behaviour. He writes:
Clinical experience with violent individuals of all social levels suggests that it might be more useful if such violence were to be regarded not solely as a product of psychological disturbances or social adversity or physiological deviance, but as a net behavioral result from the confluence and interaction at any given moment of multiple biological and environmental variables, some excitatory and some inhibitory (Elliott, 1990).

There is little doubt that genetic variables appear to be involved to some degree. Studies of reared-apart twins showed a genetically significant concordance in criminal behavior, and specific instances of highly similar arrest records between twins. However, we cannot predict which individuals are going to be violent by laboratory tests. The best way to predict who is going to be violent is to see where and how they live. Violence is not just about brain chemicals, but about poverty, the gulf between rich and poor, racial polarization, urban squalor, a faltering public mental health system, family breakdown and the deterioration of neighbourhoods. All of these areas need to be addressed.

Television Violence

While there is continuing discussion about the interpretation of research evidence concerning the impact of television violence, most researchers seem to agree with the conclusion contained in a report by the National Institute of Mental Health (1982), which reflects a consensus among members of the research community that:

"...violence on television does lead to aggressive behaviour by children and
teenagers who watch the programs. This conclusion is based on laboratory experiments and on field studies. Not all children become aggressive, of course, but the correlations between violence and aggression are positive. In magnitude, television violence is as strongly correlated with aggressive behaviour as any other behavioural variable that has been measured. The research question has moved from asking whether or not there is an effect, to seeking explanations for the effect." (p. 6).


The above citations reference the research concerns about violence on television
and how it translates into changes in attitudes, values, or behaviour on the part of both younger and older viewers. Differing interpretations on the impact of television violence exist, but as Huston, et al., (1992, p. 57) point out on behalf of the American Psychological Association "...the behaviour patterns established in childhood and adolescence are the foundation for lifelong patterns manifested in adulthood."

Children learn a great deal by watching television and it is clear that the problem of television violence needs to be addressed systematically. Gerbner & Signorielli (1990) showed that violence in weekend children's programs reached 30.3 violence episodes per hour in the 1982-83 season. Overall, the levels of violence in prime-time programming have averaged about five acts per hour and children's Saturday morning programs have averaged about 20 to 25 violent acts per hour.

In addition to broadcast television, cable TV adds to the level of violence through new, more violent, programs, and by recycling older violent broadcasts. A recent survey by the Center for Media and Public Affairs (Lichter & Amundson, 1992) identified 1,846 violent scenes broadcast and cablecast between 6 a.m. to midnight on one day in Washington, D.C. The most violent periods were between 6 to 9 a.m. with 497 violent scenes (165.7 per hour) and between 2 to 5 p.m. with 609 violent scenes (203 per hour). Most of this violence is presented without context or judgement as to its acceptability. And most of this violence in the early morning and afternoon is viewed by children and youth.
Attention Deficit Hyperactivity Disorder (ADHD)

Students with ADHD have a greater likelihood of academic underachievement and social and emotional adjustment difficulties including the development of antisocial behaviour. ADHD makes children vulnerable to failure in two important arenas of developmental mastery – school performance and peer relations. Children with ADHD often have difficulty performing in school due to poor organization, impulsivity, hyperactivity, inattention and distractibility. ADHD frequently coexists with other learning, behavioral, emotional, and developmental problems, further complicating identification and treatment.

Associated learning disabilities often include difficulties with reading (a foundational subject), writing, spelling, and math—speech and language disorders, conduct disorder, oppositional defiant disorder, mood disorders, and anxiety disorders. ADHD also affects memory—especially working memory—and organization.

The literature shows that children with ADHD commonly experience interpersonal difficulties and peer rejection, and tend to elicit more negative feedback from teachers. Untreated ADHD can lead to poor self-esteem and poor social adjustment. Children must be diagnosed as early as possible so that proper and effective intervention can take place.

What Works: Intervention and Prevention

This section reviews immediate preventive strategy in three areas: 1) reducing or eliminating the effective of television violence prevention strategies in four areas:
television violence, protecting against violence as a result of mental illness, and protecting against negative outcomes associated with ADHD. Preventive strategy at the public policy level will be covered in the conclusion of this paper.

Protecting against Television Violence (2000)

According to The American Academy of Child and Adolescent Psychiatry, parents can protect children from excessive TV violence in the following ways:

• Pay attention to the programs their children are watching. Watch some with them.
• Set limits on the amount of time they spend with the television.
• Point out that although the actor has not actually been hurt or killed, such violence in real life results in pain or death.
• Refuse to let the children see shows known to be violent, and change the channel or turn off the TV set when something offensive comes on, with an explanation of what is wrong with the program.
• Disapprove of the violent episodes in front of the children, stressing the belief that such behaviour is not the best way to resolve a problem.
• To offset peer pressure among friends and classmates, contact other parents and agree to enforce similar rules about the length of time and type of program the children may watch.

Violence Prevention for at-Risk Psychiatric Population

Research has shown that consistent medical treatment with medication, coupled
with comprehensive social support services, is the best way to prevent violent behaviour among the small minority of mentally ill people who are at risk. This is particularly important when families are involved since it is known that children suffer many adverse consequences from both psychiatric disturbances in parents and from witnessing violence (Steinwachs, Kasper & Skinner, 1992). Hodgins, Mednick, Brennan, et al (1996) report that at least 10 percent of males with severe mental illnesses, and a lesser percentage of females, become violent. In the United States this totals approximately 200,000 – 250,000 individuals. Monahan (1996) cited a study that estimated "that three percent of the variance in violent behavior in the United States is attributable to mental disorder."

It is known that the two major demographic predictors of violent behavior are male sex and younger age. It is also known that the two major clinical predictors of violent behavior are past history of violence and substance abuse (alcohol and/or drug). Recent studies have established that being severely mentally ill and not taking medication is a third major clinical predictor of violent behavior.

In reviewing a range of studies in this area, Monahan (1992) concluded:

The data that have recently become available, fairly read, suggest the one conclusion I did not want to reach: Whether the measure is the prevalence of violence among the disordered or the prevalence of disorder among the violent, whether the sample is people who are selected for treatment as inmates or patients in institutions or people randomly chosen from the open community, and no matter how many social and demographic factors are statistically taken into
account, there appears to be a relationship between mental disorder and violent behavior (p. 520).

These studies are important because they point to a potential risk factor for children who live in families with psychopathology. The mental illness of a parent contributes to dual risk of childhood internalizing and externalizing disorders. Community-based public mental health services can offer effective treatment for the minority of patients that do exhibit assaultive behaviour. Because of continued discrimination in health insurance coverage of mental illnesses and chronic under-funding of public mental health programs, they are not, however, always as accessible as they need be.

This is an area, therefore, where family and school and community should join efforts on behalf of both patients and families. Teachers in schools should monitor children in these families and make appropriate referrals without delay. Social service workers can be called upon to monitor the well-being of children at risk in welfare families. Early identification of children who seem to be having difficulties in their homes can help to alleviate the negative effects of family pathologies on the children, and prevent the development of depression, anxiety, substance abuse, aggression and antisocial behaviour.

Help for Children with ADHD

It is important for children with ADHD symptoms to receive early medical care. Brock (1997) acknowledged that there is no flawless measure of attention deficit
hyperactivity disorder (ADHD) in childhood, but proper diagnosis of children can assist the progress of children with the disorder. Full diagnosis should include DSM IV criteria and an analysis of the following: symptom duration, inattention, hyperactivity, impulsivity, developmental level, symptom onset, symptoms appearing in multiple settings, clinical significance, and the ruling out of other disorders that might cause the symptoms. A sample of the literature found that rating scales, interviews, medical evaluation, observations, and laboratory psycho-educational testing were the most frequently recommended diagnostic techniques, although the efficacy of some of these techniques is questionable.

Because of this range of interrelated factors, it is essential that families have a careful diagnosis by a medical specialist which rules out other related disorders. Gold (1997) points out that there may be various reasons for the disability which include neurological differences and difficulties in interpreting sensory input. Problems with focusing and hearing as well as hypersensitivity to light and sound may also be present. Research has also indicated nutritional deficits in children with ADHD and there are implications concerning the lower blood flow in the cortex of children with the disorder.

Determining if a child has ADHD is a multifaceted process, best carried out by a qualified medical specialist. Many biological and psychological problems can contribute to symptoms similar to those exhibited by children with ADHD. For example, anxiety, depression and certain types of learning disabilities may cause similar symptoms. A comprehensive evaluation is therefore necessary to establish a diagnosis, rule out other causes and determine the presence or absence of co-occurring conditions. Such an
evaluation should also include a clinical assessment of the individual’s academic, social and emotional functioning and developmental abilities. Additional tests may include intelligence testing, measures of attention span and parent and teacher rating scales. To meet the diagnostic criteria for ADHD in the DSM-IV (Diagnostic and Statistical Manual, 4th Edition) symptoms must be evident for at least six months, with onset before age seven. Because of the above-mentioned potential complications, proper diagnosis is essential.

**Treatment of ADHD**

Most experts recommend a multimodal treatment approach for ADHD, consisting of a mix of medical, educational, behavioral, and psychological interventions. Interventions may include educational modifications and accommodations, behavior modification, parent training, counseling, and medication.

Psychostimulants (such as methylphenidate, dextroamphetamine, and pemoline) are the most widely used medication for the management of ADHD-related symptoms. Between 70-80% of children with ADHD respond positively to psychostimulant medications. Other medication includes some antidepressants and antihypertensives. These medications increase attention and decrease impulsivity, hyperactivity and aggression. The following additional general information includes helpful overall approaches.

- Behavior management is an important intervention with children who have ADHD. The most important technique is positive reinforcement, in which the child is
rewarded for desired behavior.

- Classroom success may require a range of interventions. Most children with ADHD can be taught in the regular classroom setting with either minor adjustments to the classroom setting, the addition of support personnel, and/or "pull-out" programs that provide special services outside of the classroom. The most severely affected may require self-contained classrooms.
- ADHD occurs across all levels of intelligence, yet even bright or gifted children with ADHD may experience school failure. Despite natural ability, their inattentiveness, impulsivity, and hyperactivity often result in failing grades, retention, suspension, and expulsion.
- Without proper diagnosis, accommodations, and intervention, children with ADHD are more likely to experience negative consequences. (CHADD, 2000).

Help in the Educational Setting

Once a diagnosis is established, multiple interventions involving the home and school are helpful. In terms of a child's educational progress, it is important that teachers are fully informed and that special education assistance is provided as necessary. McEwan (1998) has produced a checklist which assists in adapting and structuring classroom life to better meet the needs of students with attention deficit hyperactivity disorder (ADHD). The checklist covers these areas:

1) Environmental interventions (changes in the physical setting that will increase the
likelihood of increased learning)

2) Academic interventions (modification of classroom procedures and expectations for the students)

3) Instructional interventions (changes in teacher behavior, lesson presentation, or both)

4) Organizational interventions (strategies to assist the student toward independent self-organization)

5) Homework interventions (ways to ensure that independent practice will be productive and lead to the student's learning)

6) Behavioral interventions (methods to increase the likelihood of positive behaviors leading to increased learning)

7) Social skills interventions (modifications to help the student with ADHD relate more positively with peers).

**Help in the Home Setting**

In terms of help for parents, numerous self-help organizations exist and provide needed supports in terms of information and contact with specialists and other parents who are dealing with the same difficulties. The following general guidelines are outlined.

- Parents can model, i.e., demonstrate appropriate behavior so that the child learns by imitation about appropriate interpersonal skills. Role modeling includes using interesting verbal cues when speaking, reinforcing good behaviors,
greetings at the door, and appropriate smiles and gestures.

- For younger children, puppets can be appropriate models. A key part of modeling involves the use of good affective skills and body language. Children with ADHD may have problems understanding facial expressions. If they are taught how to read the emotions behind such facial expressions, the child’s understanding of social interaction may improve.

- The child with ADHD will benefit from immediate feedback from the parent or teacher connoting approval or disapproval. Strong affective gestures (winks, thumbs up, frowns, etc.) also communicate effectively to the child.

- Positive feedback is important. Direct, encouraging praise will promote good social response. Unconditional positive regard which places the value on the child’s effort, not the quality of outcomes is powerful. For example: "I bet you really worked hard on that one." The praise does not judge quality, but specifically states that the child did well. Parents are advised to focus on the child’s strengths, not on what the child can’t do.

- Providing clear, consistent expectations, directions and limits puts necessary structure in place for ADHD children who need to know exactly what others expect from them. They do not perform well in ambiguous situations that require reading between the lines or elaborate interpretation.

- An effective discipline system involving proactive discipline methods that teach and reward appropriate behavior and respond to misbehavior with alternatives such as "time out", natural consequences, and loss of privileges.
A behavior modification plan (ideally with a chart) will assist with changing the most problematic behaviors. Behavior charts and other behavior modification techniques help focus on and address problems in systematic, effective ways. The visibility of such a program can assist with identifying and reinforcing positive behaviors and eliminating or reducing negative behaviors that create problems for the child.

Children with ADHD need assistance with social issues as they may be rejected by peers because of hyperactive, impulsive or aggressive behavior. Parent training can help with this process. Parents can model positive behaviours as mentioned above, and assist their child in making friends and learning to work cooperatively with others.

Identifying a child’s strengths – in areas such as art, computers, mechanical ability can help the child to develop a sense of pride and accomplishment.

Setting aside a daily special time for the child can provide a good dose of TLC can help fortify the child against assaults to self-worth.

Parents are also advised to seek support for themselves. It is often found that since ADHD is hereditary, they have may also need evaluation and treatment.

It is clear that ADHD-identified children are at risk for the development of antisocial behaviour; it therefore seems justified to make special effort and go to some expense to give intensive treatment to children with Attention Deficit Hyperactivity Disorder. ADHD does not cause delinquency, but research indicates that children, with
the disorder and learning disabilities, are at high risk for developing problems which can affect several aspects of their lives. Whether or not a child develops a problem is affected by three factors; namely, the child, the family, and the social environment. Children at risk tend to have a difficult temperament, low self-esteem, families lacking in warmth, and lack of support outside the home.

On the treatment side, since the disturbance caused by the disorder involves the whole family, comprehensive care of ADHD should include parents and siblings. The child, in addition to receiving medication when this is indicated, should also be given social skills training as most of these children are rejected by peers and feel isolated and lonely. In their inappropriate efforts to make friends, they often end up making some enemies. Teaching these children how to make friends and keep them could reduce their isolation and misery (Shamsie, 1994).

Several interventions have been developed to improve a child's self-esteem. These interventions are based on a theory of attribution in that they target a child's perception of, and explanations for, success and failure. Children with high self-esteem perceive success as resulting from their own abilities and efforts, while they perceive failure as an experience from which they can learn or a result of factors which can be changed (e.g., lack of effort). In contrast, children with low self-esteem see their successes as resulting from luck, while they view their failures as resulting from factors which cannot be changed (e.g., their abilities). Children with low self-esteem can be helped by identifying and reinforcing things which they are good at and which can bring them pride and accomplishment. Brooks (1994) has summarized the key areas to
address:

- Encourage contributions by providing children with opportunities for assuming responsibilities, particularly those that make them feel that they are contributing to their community, home, or school.

- Enhance decision-making skills by providing children with opportunities to learn how to make choices and solve problems; also provide them with opportunities to apply these skills.

- Provide encouragement and positive feedback.

- Help children to develop self-discipline without humiliating or intimidating them.

  The purpose of rules should be explained to them, and they should be allowed to contribute to the development of rules in some small way.

- Help children to deal with mistakes and failures by showing them that mistakes are an important part of learning.

Research findings indicate that involvement of parents is essential; children with ADHD are best helped with a combination of social skills training for themselves and training/support for their parents.

Maté (1999) suggests that the reversal of ADHD patterns of behaviour in a child can be assisted with a consistent attempt by parents to apply the following principles illustrated in Table 11.
Table 11.

Guidelines for Parents of ADHD children.

<table>
<thead>
<tr>
<th>Principle</th>
<th>Technique</th>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>The parent takes active responsibility for the relationship</td>
<td>Invite the child</td>
<td>Fostering the child’s self-acceptance</td>
</tr>
<tr>
<td>The parent does not judge the child</td>
<td>Avoid pointing out faults, mistakes, shortcomings</td>
<td>To increase security, reduce shame</td>
</tr>
<tr>
<td>The parent does not overpraise the child</td>
<td>Give praise in measured terms; reflect back the child’s feelings</td>
<td>Reinforcing the child’s confidence that achievements are not needed to earn the parent’s acceptance and respect</td>
</tr>
<tr>
<td>One does not parent from anger</td>
<td>When the parent feels anger, he refrains from criticizing, giving orders, expressing opinions</td>
<td>To avoid faulting the child for even a momentary break in the relationship with the parent</td>
</tr>
<tr>
<td>The parent takes responsibility for restoring the relationship</td>
<td>Do not wait for the child to reestablish contact after a fight</td>
<td>Allowing the child to feel that the attachment relationship is greater than whatever argument or disagreement may come between him and the parent</td>
</tr>
</tbody>
</table>

Derived from (Maté, 1999, p. 153)
The United States protects children with ADHD under The *Individuals with Disabilities Education Act* (IDEA, 2000). IDEA prohibits schools from suspending for more than 10 days and expelling students whose behavior results from their disability, unless drugs or weapons are involved or the child is a danger to himself or others. Children who are suspended or expelled are still entitled to education services that meet the standards of a free appropriate education. If a public school is unable to provide an appropriate education for a child, then the school district may place a child with disabilities in a private school setting at public expense.

Parents can request an impartial due process hearing when they disagree with the school's decision in such matters. Under a separate provision, the child can remain in the then-current educational placement until all administrative proceedings are concluded (with the exception of cases where the child has brought weapon or drugs to school, or is proven to be substantially likely to harm himself or others). IDEA also requires a Functional Behavior Analysis and a Positive Behavior Plan when a child's behaviour interferes with learning. Special Education Programs in many schools in Canada require teachers to develop IEPs (Individual Education Plans) for children suffering from disorders such as ADHD and associated learning disabilities. The children are followed closely and contact with parents is maintained through formal review processes.

This chapter has reviewed a range of biological, neurological and psychological factors associated with the development of antisocial behaviour in youth. The next chapter deals with predispositional elements in the family and home environment.
CHAPTER FOUR
FAMILIAL FACTORS AND THE HOME ENVIRONMENT

Introduction

Child abuse and child neglect have become endemic issues in our society and constitute major public health problems with consequences of severe psychological and social dysfunction in both the short and long terms. Historically, the problem of abuse (both physical and sexual) has gained more research attention than has child neglect. While neglect has had less systematic study, research demonstrates that neglect may be as deleterious, and even more widespread than physical or sexual abuse. This chapter reviews the literature on child abuse and neglect in relation to the development of aggression. It begins with an overview of the problem, followed by incidence of occurrence and studies which shed light on relevant issues and outcomes. The chapter concludes with a summary of the information on the influences of abuse and neglect to antisocial behaviour as well as recommendations for intervention and prevention.

Abuse and Neglect - Overview

The National Clearinghouse on Family Violence, Family Violence Prevention Division of Health Promotion and Programs Branch, Health Canada provides descriptive frameworks of abuse and neglect:

Child Abuse

Child abuse occurs when a parent, guardian or caregiver mistreats or neglects a
child, resulting in injury, or significant emotional or psychological harm, or serious risk of harm to the child. Child abuse entails the betrayal of a caregiver's position of trust and authority over a child. It can take many different forms.

Physical Abuse

Physical abuse is the deliberate application of force to any part of a child's body, which results or may result in a non-accidental injury. It may involve hitting a child a single time, or it may involve a pattern of incidents. Physical abuse also includes behaviour such as shaking, choking, biting, kicking, burning or poisoning a child, holding a child under water, or any other harmful or dangerous use of force or restraint. Child physical abuse is usually connected to physical punishment or is confused with child discipline.

Child Sexual Abuse

Child sexual abuse occurs when a child is used for sexual purposes by an adult or adolescent. It involves exposing a child to any sexual activity or behaviour. Sexual abuse most often involves fondling and may include inviting a child to touch or be touched sexually. Other forms of sexual abuse include sexual intercourse, juvenile prostitution and sexual exploitation through pornography. Sexual abuse is inherently abusive emotionally and is usually accompanied by separate and more direct forms of psychological abuse or other forms of mistreatment.
Emotional Abuse

Emotional abuse involves an attack on a child's sense of self. Emotional abuse is usually found in the context of a long-term problem in a parent's treatment of a child. It is often part of a pattern of family stress and dysfunctional parenting. Emotional abuse frequently co-exists with other types of abuse. Constant insults, humiliation or rejection, or labelling a child as “stupid” or “bad”, harms a child's sense of worth and self-confidence. Other forms of emotionally abusive treatment include forcing a child into social isolation, intimidating, exploiting, terrorizing or routinely making unreasonable demands on a child. Some provinces in Canada now include exposure of a child to violence between the parents as a form of emotional abuse.

A recent study of wife assault found that children witness violence against their mothers in almost 40 percent of violent marriages (Hay & Allen, 2000). The effects of child abuse on children's social adjustment and success in life are profound and lasting. Outcomes for physical and emotional abuse include aggression, delinquency, substance abuse and interpersonal problems. Abused children suffer the risk of becoming violent adults and are more likely to suffer from depression, low self-esteem and suicidal thoughts.

Historically, it has been difficult to estimate the extent of neglect since the literature is plagued by the tendency to aggregate physical abuse, sexual abuse, and neglect into a single category of child maltreatment. However, The Child Maltreatment Reports of the (U.S.) States to the National Child Abuse and Neglect Data System (1996) indicated that 55% of the nearly one million documented cases of child maltreatment that
year were cases of some form of neglect. It was noted also that this figure is likely to be a significant underestimate. Other evidence suggests that less than half of recognized cases of maltreatment are actually reported to child protective services, and less than 20% of these cases are taken to court.

**Child Neglect**

Neglect occurs when a child's parents or other caregivers are not providing essential requisites to a child's emotional, psychological and physical development. Physical neglect occurs when a child's needs for food, clothing, shelter, cleanliness, medical care and protection from harm are not adequately met. Emotional neglect occurs when a child's need to feel loved, wanted, safe and worthy is not met. Emotional neglect can range from the context of the abuser simply being unavailable (distant, detached) to that in which the abuser openly rejects the child. While a case of physical assault is more likely to come to the attention of public authorities, neglect can represent an equally serious risk to a child.

Among the deleterious effects of neglect are increased risk for suicide, lowered IQ, depression, anxiety, post-traumatic stress disorder, delinquency and later adult criminal behavior, drug and alcohol abuse, and a greater likelihood of growing up to repeat the cycle of negative behaviors as a parent. Child neglect can also interfere with normal social, cognitive, and affective development, including the development of language, social relationships, and academic skills (Third National Incidence Study of Child Abuse and Neglect, 1996). The American Medical Association (2000) suggested
that routine examinations may reveal many indicators of neglect. These are summarized below:

**Physical Neglect**

Physical neglect includes malnutrition, low birth weight, repeated pica (compulsive eating of anything such as dirt, paint, clay, laundry starch, etc.), constant fatigue, poor hygiene, persistence of treatable medical conditions, lack of immunizations and appropriate medications, absence of dental care, absence of necessary prostheses such as eyeglasses and hearing aids, preventable injuries (e.g., craniofacial injuries resulting from failure to wear protective headgear during sports), and delays in physical, language, and cognitive development.

**Educational Neglect**

Educational neglect may be manifest as ignored or permitted truancy, failure to enroll children in school, failure to obtain recommended remedial or special education services.

**Emotional Neglect**

Emotional neglect is reflected in inadequate nurturance and affection, exposure to family violence, permitted abuse of drugs or alcohol, or refusal of psychological care. Intervention may be particularly difficult in the vast majority of the cases where neglect is chronic and insidious.
Incidence of Abuse and Neglect

The Third National Incidence Study of Child Abuse and Neglect (1996) sponsored by the U.S. Department of Health and Human Services estimates that child maltreatment nearly doubled in the United States between 1986 and 1993. The following summary is derived from the report, and is followed by Canadian information.

Child Maltreatment

- The number of abused and neglected children grew from 1.4 million in 1986 to over 2.8 million in 1993.
- The number of children who were seriously injured quadrupled from about 143,000 in 1986 to nearly 570,000 in 1993.
- Only 28 percent of the children identified by the study as harmed by abuse and neglect in 1993 were investigated by State child protective services.
- In 1994, over 3 million (3,140,000) children were reported for child abuse and neglect to child protective service (CPS) agencies in the United States. This figure represents a 4.5% increase over the number of children reported in 1993.
- Currently, about 47 out of every 1,000 children are reported as victims of child maltreatment. Overall, child abuse reporting levels have increased 63% between 1985 and 1994.
- In 1994, 1,036,000 children were substantiated by CPS as victims of child maltreatment. This represents 16 out of every 1,000 U.S. children.
- According to the 1994 survey, physical abuse represented 21% of confirmed
cases, sexual abuse 11%, neglect 49%, emotional maltreatment 3% and other forms of maltreatment 16%. These percentages have remained fairly stable since 1986 when approximately 27% of the children were reported for physical abuse, 16% for sexual abuse, 55% for neglect, and 8% for emotional maltreatment.

**Fatalities**

- In 1994, an estimated 1,271 child abuse and neglect related fatalities were confirmed by child protective services. Since 1985, the rate of child abuse fatalities has increased by 48%. Based on these numbers, more than three children die each day as a result of child abuse or neglect.

- In 1994, those states which kept this statistic reported that almost 88% of these children are less than five years old at the time of their death with 46% under one year of age. As for cause of death, 42% of deaths resulted from neglect, 54% from physical abuse and 4% from a combination of neglectful and physically abusive parenting. Approximately 45% of these deaths occurred to children known to child protective service agencies as current or prior clients.

**Sexual Abuse**

- Studies of the general population of adults show that anywhere from 6 to 63% of females were sexually abused as children. A 1985 L.A. Times national survey found that 27% of women and 16% of men reported being sexually abused prior to age 18 (Finkelhor, 1986). The true extent of sexual abuse is unknown.
Sexual Abuse in Day Care

- A study of disclosed cases of child abuse in center-based day care revealed no especially high risk of sexual abuse for children sent to such a setting. While an average of 5.5 children per 10,000 enrolled in day care are sexually abused, an average of 8.9 children out of every 10,000 are abused in the home (Finkelhor & Williams, 1988).

- Based on information from 21 states, reports of abuse in day care and foster care each represented less than 1% of all confirmed cases in 1994 (Wiese & Daro, 1995). This percentage has remained the same in recent years.

Substance Abuse and Child Abuse

- The link between substance abuse and child abuse has strengthened over the years. It is estimated that 9 to 10 million children under the age of 18 are directly affected by substance-abusing parents (Woodside, 1988). In 1994, eleven states had an average of 35% of their substantiated cases involve substance abuse, with the percentage ranging from 4% to 65% (Wiese & Daro, 1995).

- The national incidence for fetal alcohol syndrome is 1.9 per 1000 live births (Ogintz, 1988). The effects of having been exposed to either illegal drugs or alcohol prenatally include low-birth weight, small head size, long-term medical complications, and increased incidence of SIDS (Sudden Infant Death Syndrome). In addition, exposed infants tend to be irritable, lethargic, and difficult to console
which interferes with parent-child bonding and increases the likelihood of abuse or neglect.

**Canadian Specifics on Child Maltreatment**

The two major studies sponsored by the U.S. Department of Health and Human Services: the National Child Abuse and Neglect Data System and the Third National Incidence Study of Child Abuse and Neglect (1996) provide a wealth of valuable research information. Health Canada has at the time of this writing just begun to compile similar data for Canada. No comparable statistics exist at the moment, but a Health Canada Childhood Youth Division Fact Sheet (Hay & Allen, 2000) reports the following:

There are no national statistics on the prevalence or incidence of child abuse in Canada. Each province and territory compiles its own figures, using its own definitions. A 1994 report, Child Welfare in Canada: The Role of Provincial and Territorial Authorities in Cases of Child Abuse, describes the provincial laws, definitions and child welfare systems that deal with child abuse. ... The available data cannot be directly or easily compared among provinces because the information is collected according to different definitions and parameters in each jurisdiction.

The following facts, however, provide some insight into the extent of the problems of child abuse and neglect in Canada.

- In Canada in 1992, approximately 40,000 children were living in foster care or
other settings away from their home of origin because of the intervention of child protection authorities.

- In Ontario, the number of Children's Aid Society investigations for child physical abuse increased from 3,546 in 1983 to an estimated 13,236 in 1993. The number of investigations increased by a yearly average of 27 percent over this 10-year period.
- Child abuse and neglect occur in every province and territory, in large cities, small towns and rural areas. While children of all ages are at risk, those 3 years old or less are most frequently investigated for neglect, and children 12 to 15 years old are most frequently investigated for physical abuse.
- Child abuse cuts across all ethnic, religious, social and economic backgrounds. Economic disadvantage is a major contributor to child neglect. Poverty also appears to be a risk factor for physical abuse, though not for emotional abuse.
- Causes of stress on families, such as unemployment, can contribute to child maltreatment. There is evidence that the prevalence of child neglect is significantly lower in Canada than in the United States, possibly because of the lower rates of child poverty in Canada and possibly because reporting in Canada is not as systematized as in the U.S.

In conclusion, child neglect and abuse are a serious public health, justice, social services, and education problem, not only compromising the immediate health of children, but also threatening their growth and intellectual development, their long-term
physical and mental health outcomes, their propensity for pro-social behavior, their future parenting practices, and their economic productivity as eventual wage earners.

Abusive Parents

Abusive parents tend to receive less enjoyment or satisfaction from parenting and are more isolated from the community than non-abusive parents. They have unrealistic expectations of their child and try to control the child through negative and authoritarian means. Abuse often takes place in connection with harsh discipline. Abusive parents are often afraid of child authorities or emotionally unable to ask for help from sources of support in their community. Many abusers view themselves as victims in life generally or in the parent-child relationship in particular. They feel that they have lost control of their children and their own lives. When their children behave in a manner the parents perceive as disrespectful, they lash out in an effort to establish control. It is often found that these parents have themselves been abused or neglected as children. Those who do not continue the cycle of violence, however, are generally the ones who have developed supportive relations with others. Because abusive parents often have unrealistic expectations about their child's development and abilities, they demand a level of physical, social and emotional maturity which is not appropriate for the age of the child (Caliso & Milner, 1994).

Outcomes of Child Abuse and Neglect

Children who are abused tend to experience more social problems and perform
less well in school than non-abused children, with lasting effects on their social
adjustment and success in life. The effects of combined types of abuse are additive;
children who are both emotionally and physically abused exhibit the greatest degree of
aggression, delinquency and interpersonal problems. Combined physical and
psychological or emotional abuse that is explicit and systematic has more negative
consequences than physical abuse alone (Claussen & Critenden, 1991). Women who
were abused in childhood are more likely to suffer from depression, low self-esteem and
suicidal thoughts.

There is evidence that victims of childhood abuse are at greater risk of becoming
violent criminals. A study of men in Canadian prisons showed that those who were
abused as children were three times more likely than non-abused men to be violent as
adults (Dutton & Hart, 1992). Children and adolescents who engage in delinquent
behaviour are often found to have a history of family conflict, neglect, or lack of parental
supervision and support. A report by the U.S. Department of Health and Human Services
has indicated that nearly one child in 24 was the victim of maltreatment (Fantuzzo, Weiss
& Atkins et al., 1998). In Canada, Trocme, McPhee & Tam (1995) indicate that the
incidence of reported maltreatment in Ontario in 1993 was 21 per thousand children.

Reviewing a range of studies, Thompson & Braaten-Antrim (1998) indicate that
past research has shown that physical and sexual abuse are linked with delinquency,
eating disorders, teenage pregnancy, substance abuse and suicide. Their investigation
showed that maltreatment increases the chances of youth getting involved in gangs.
Thirty-seven percent of the youth who were physically abused (of a sample of 2,468
students in grades 6 through 12) engaged in gang fighting compared with 20 percent who were not physically abused. Figures for children who were victims of sexual abuse were 32 percent for gang involvement compared to 21 percent gang involvement for nonvictims. It is known that maltreatment during the pre-school years increases the risk of antisocial behaviour in the adolescent years.

**Psychopathology**

Investigations of the records of 539 emotionally disturbed children between the ages of 4 to 16 years (Rogeness et al., 1986) revealed that abuse and/or neglect (probable or definite) had occurred in 42 percent of the boys and 41 percent of the girls. Three groups of children were formed to compare psychopathology and cognitive ability:

1) abused only children
2) abused and neglected children
3) children with no history of abuse or neglect.

Because children who were neglected and abused were similar to children who were only neglected, a single group was formed. Intellectual functioning, diagnosis, and aggressive behaviour were also examined separately by gender.

**Cognitive Ability**

- In relation to cognitive ability, neglected and abused boys had significantly lower verbal IQ scores than solely abused boys or boys with no history of abuse or neglect.
Neglected and abused girls had lower performance and verbal IQs than the group neither neglected or abused.

_Conduct Disorder_

- In terms of psychopathology, abused girls and boys and neglected boys were more likely to receive a diagnosis of Conduct Disorder.
- Significantly more neglected boys were diagnosed as Conduct Disorder undersocialized.

_Attention Deficit Hyperactivity Disorder_

- Abused girls showed more conduct and hyperactivity symptoms than controls.
- Neglected and abused children had concentration problems.
- Abused and neglected boys displayed more borderline and conduct symptoms and _less_ anxiety than the group with no history of abused or neglect.

_Behaviour Problems_

- Concerning behaviour, neglected boys showed more impaired relatedness than the others.
- Boys who had been abused demonstrated more aggressive behaviour such as more homicidal threats, fire setting and cruelty to animals than the other two groups.

Girls did not show any differences in these behaviours.

It is clear that significant impairment and emotional disturbance results from abuse and neglect. This has implications for treatment and programming since children who are abused and/or neglected may have different treatment needs than their peers who are referred for emotional disturbance.
The Development of Aggressive Behaviours

Reidy (1977) studied the influence of child abuse in promoting aggression in young children. Three groups of children whose average age was 6.6 years were compared:

1) physically abused children
2) children registered with social service agencies and
3) children from a day care centre.

All children were examined psychologically for evidence of aggressive fantasies and aggressive behaviours in a free-play situation. Teachers also rated their levels of aggression. The findings showed that parental neglect does influence aggressiveness, but not quite as strongly as physical abuse. Physically abused children were found to have more aggressive fantasies and more aggressive free-play than either of the other two groups. Both the abused and neglected children were rated as more aggressive than children with no history of abuse or neglect.

Substance Abuse

Research has also shown increased levels of substance abuse as a result of sexual abuse. Hussey & Singer (1993) studied 174 adolescents aged 12 to 18 (44 male and 130 female) who were admitted to an adolescent psychiatric unit within a 3-year period. One-half of the adolescents had been sexually abused and one-half had no known history of abuse. All patients entering the facility were screened for sexual abuse history through standardized questionnaires, patient interviews, family reports and official records.
Abused and non-abused patients were matched on race, gender, socioeconomic status, and psychiatric diagnosis. The majority of adolescents were diagnosed with adjustment disorder. Adolescents were administered questionnaires to determine substance use, self-esteem, depression, competence and other functioning.

Results showed that sexually abused adolescents were more likely to use drugs in general and marijuana and stimulants in particular. They reported a higher frequency of drunkenness and had started using drugs at an earlier age. Perceived benefits included relaxation, forgetting problems, feeling good, and being friendly. Most of the sexually abused adolescents began their substance use after their abuse.

Poor Childhood Adjustment

Disciplinary problems are not the only outcomes of physical abuse. A study by Okun, Parker, & Levendosky (1994) examined data (parent and teacher ratings, child self-ratings, and standardized test scores) to determine effects of physical abuse, socioeconomic disadvantage, and negative life events. Participants were 19 physically abused children and 49 non-abused children between the ages of 8 and 12.

Results showed that regardless of children's socioeconomic background or exposure to negative life events, physical abuse was associated with the following:

- depression
- poor peer adjustment
- poor self-perception
- increased behavioural problems
Socioeconomic disadvantage was associated with low academic competence.

Exposure to negative life events or stressors was associated with:

- poor self-perception among all children
- depression among females
- poor peer relations among socioeconomically disadvantaged
- social competence among the socioeconomically advantaged

Although the abuse sample for this study was small and more related to harsh parental disciplining than extreme parental violence, the research shows the importance of socioeconomic status in the development of children. Physical abuse and negative life events have different effects on the adjustment of children who come from poor homes from those who are economically well-to-do.

Among socioeconomically advantaged children, there were only minor differences in the behaviour of abused and non-abused children. The authors point out that although many studies show an association between abuse and behaviour problems, this study illustrates that the association can be affected by mediating factors such as the socioeconomic status of the child. For example, exposure to negative life events appeared to jeopardize the peer relations of socioeconomically advantaged children and improve the peer relations of disadvantaged children. Social disadvantage plus negative life events, such as mental illness in a family member, may weaken children's ties to the family and increase their dependence on peers.
Psychosocial Outcomes

Fisher, Kramer & Hoven (1997) interviewed a sample which included 665 youth aged 9 to 17 living in urban communities, excluding those living in institutions. Both the youth and an adult caregiver were asked about several types of physical abuse: hit very hard, beaten or kicked. Psychosocial characteristics examined included psychiatric disorder, suicidal tendencies, social competence, academic performance, family environment, and psychiatric history. Results showed that 25.9 percent of youth had a history of physical abuse (16.8 percent when a stricter definition of physical abuse excluding those whose physical abuse was limited to having been hit very hard on fewer than 5 occasions).

It was found that a history of physical abuse was associated with a wide range of psychopathology. For example:

- abused youth were 3.7 times more likely to suffer major depression, although there were not significant differences in suicidal tendency.
- Physical abuse was strongly associated with functional impairment in interpersonal relations and functioning in school or job.
- these children were more likely to have low grades in school and poor language ability.

The authors recommend that all children with a history of physical abuse should have a comprehensive psychiatric assessment. It was also suggested that clinicians should routinely inquire about a history of physical abuse in any children with serious
emotional problems.

**Antisocial Personality Disorder**

Luntz & Widom (1994) attempted to determine if abused and neglected children were more likely to suffer from Antisocial Personality Disorder as adults. They followed 416 children who had experienced physical abuse, sexual abuse and/or neglect before the age of 12 and compared them with children of similar race, age, and gender with no history of abuse/neglect of similar race, age, and gender.

Results indicated that abused and neglected children were at increased risk for developing Antisocial Personality Disorder in adulthood regardless of gender, race, age, socioeconomic status, and criminal history. Overall, 13.5 percent of abused and/or neglected children had Antisocial Personality Disorder compared to 7.1 percent of children with no history of abuse or neglect.

**Family Structure and Functioning**

**Attachment Relationships**

Children and adolescents who exhibit difficult behaviours are often found to have a history of family conflict, neglect, or lack of parental supervision and support. Goldberg (2000) notes that there is convincing evidence that for a substantial number of children, early life influences establish a developmental trajectory which includes childhood Conduct Disorder, adolescent violence, and adult psychiatric disorder. The notion that poor parenting and difficult family environment are two of these early
influences is widely accepted. Longitudinal studies have been most useful in gathering information about patterns of child rearing or parent-child relationships and then observing the development of child behaviour disorders.

A great deal of theory in the area of parent-child relationships has been originated by John Bowlby who argued that emotional ties between children and their caregivers have a biological basis best understood in the context of evolution. Infants are "hard-wired" (i.e., genetically predisposed) to respond to a protective caregiver. When the caregiving role is assumed by an able and willing adult, this relationship marks a secure emotional attachment. The child's experience of early parental care establishes the child's expectations of the parent's availability.

Based on laboratory studies, four patterns of attachment are identified in each age period:

- secure - the most common, and considered optimal
- avoidant/dismissing - devaluing relationships and avoiding intimacy
- preoccupied - overly invested in conflictual relationships
- disorganized/unresolved - confused or inappropriate relationships.

As Goldberg (2000) points out, these patterns are not only reflected in behaviour with significant others, but are incorporated into cognitions called working models. The generalized models then affect the way in which other relationships are approached. Secure attachment resulting from sensitive and appropriate care is translated into positive and responsive interactions with the world. The child engages others in ways that foster further positive relationships and is less likely to engage in antisocial behaviour.
Attachment and Outcomes

A number of longitudinal studies have tried to show that secure attachment in infancy "protects" children from later behaviour problems. Erickson, Sroufe & Egeland, (1985), and Renken, Egeland, Marvinney, Mangelsdorf & Sroufe (1989) followed a large sample of socially disadvantaged children in Minnesota from infancy through the teen years. Reports up to third grade consistently showed the protective effects of secure attachment. Goldberg, Gotowiec & Simmons, (1993) published findings suggesting that there is a very consistent and reliable effect of early secure attachment in decreasing reports of behaviour problems. Early secure attachment may operate as a protective factor against antisocial outcomes.

Externalizing Disorders

Different types of attachment have been studied to yield various associated responses. For example, it has been found that avoidant/dismissing attachment is associated with a working model in which the world is seen as hostile and uncaring. The child unconsciously assumes a mindset which expects the worst of others and acts accordingly toward them. A number of studies have confirmed that early avoidant infant mother attachment is associated with high scores on parent and teacher reports of externalizing behaviour problems (Erickson, Egeland & Sroufe, 1985; Lewis, Feiring, McGuffog & Jaskir, 1984; Goldberg, Gotowiec, & Simmons, 1993).

Other forms of insecure attachment have also been associated with externalizing disorders. A team in Seattle conducted two studies of concurrent attachment in
preschoolers referred for externalizing disorders compared with a community sample. (Greenberg, Speltz & DeKlyen, 1991; Speltz, Greenberg & DeKlyen, 1990) found that a form of insecurity known as controlling-punitive was a subtype of disorganized attachment. In controlling-punitive relationships, the child takes charge in ways that are annoying or humiliating to the parent. This may consist of refusing to respond when a request has clearly been heard, lagging at simple tasks or being consistently critical or disparaging of the parent.

*Aggressive Behaviour*

Additional relationships were found by Lyons-Ruth, 1996; Cowan, Cowan & Cohn, 1996) who studied attachment in relation to the development of aggressive behaviour. Of the four categories of attachment relationships (*secure, avoidant, ambivalent* and *disorganized*) two types of attachment—*avoidant* and *disorganized*—were related to the development of aggressive behaviour disorders later in life. Overall, they found interactions between family stressors, discipline, temperament, and attachment.

Their results demonstrated the following:

- 55% of children had secure attachment
- 3% had avoidant
- 8% had ambivalent
- 15% had disorganized attachment relationships

Their investigations also corroborated a link between the type of attachment parents experienced and their parenting behaviour. It was found that the type of
attachment a mother experienced will be similar to the attachment experienced by her infant. The authors speculate that this may explain why and how some patterns of behaviour are so remarkably persistent across generations. There is also evidence that marital relationships, positive or negative, may also affect the type of attachment the child will experience.

It appears that a mother's health and early perceptions of her child's temperament are also associated with attachment issue difficulties. Shaw & Vondra (1995) examined infant attachment security and maternal predictors of early behaviour problems in low income families. Their results confirmed that attachment insecurity is related to behaviour problems which can be seen as early as age 3. There were, however, some important gender differences.

- Maternal depression during the first year of life was associated with behaviour problems at age 3 for boys but not for girls.
- Maternal perception of different temperament at 1 and 2 years of age was associated with internalizing problems such as anxiety and depression later in life for girls, but not for boys.

Both maternal depression and perceived infant difficulties in temperament were influential in the attachment relationship which, in turn, gave rise to psychosocial problems in children.

Studies of infants and preschool children consistently show that abused toddlers are more likely to develop insecure attachment (Youngblade & Belsky, 1990). Some studies reported that abused toddlers tend to be delayed or impaired in their affective
reactions in self-recognition tasks (Schneider-Rosen & Cicchetti, 1991; Lewis & Brooks-Gunn, 1979) found that abused preschool children are more likely to show deficits in social relationships with their peers (Main & George, 1985).

There is hope, however, that modification of difficult circumstances is possible. Goldberg (2000) notes that although attachment theory incorporates the notion that attachments are stable in pattern, there is also evidence of considerable change with alterations in life circumstances that affect parental availability and responsiveness. Two studies have shown that from infancy to the preschool period approximately half of the children studied changed their attachment pattern (Beckwith & Rodning, 1991; Janus, Middlebrook, Simmons & Goldberg, 1993).

In summary, research evidence shows that early attachment problems may bias children towards particular developmental pathways. Many influences, however, contribute to the final pathways that lead to the subsequent development of antisocial behaviour. Bowlby's attachment theory provides a useful way of understanding the effects of patterns of closeness and distance in family relationships. Meeting the physical and emotional needs of children is contingent upon a number of factors. Single-parent families, for example, are generally under greater stress than intact families. While many single parents cope well, others have difficulty fulfilling all the of nurturing/protecting/training roles of parenthood. There are parents who are dealing with their own unresolved early childhood experiences of dysfunction. The following study relates to the issue of single-parent families.
Mother-only Families versus Intact Families

Pearson et al. (1994) examined behaviour in 393 fourth grade children with a view to ascertaining a relationship between family structure and aggressive behaviour. It was hypothesized that differences between single-mother families and “intact” mother-father families would be evident.

Results showed that compared to children in mother-father families, children in mother-alone families were two to three times more likely to be rated as highly aggressive by their teachers.

- Girls in mother-alone families were considered by teachers to be similar in aggressive behaviour to boys in mother-father families.
- Among low-income families, boys in mother-alone families were no more likely to be rated as aggressive than those in mother-father families.
- However, boys from mother-male partner families were rated as more aggressive by their teachers than boys in mother-alone families.

It was noted that teachers' ratings of aggressive behaviour tended to be higher than those of parents. This study points to several factors which affect the development of aggression. These include: a) the gender of the child, b) the economic situation, c) biological factors, and the absence of a second adult besides the mother.

Similar findings were evident in a study on mother-only families and aggression by Vaden-Kiernan et al. (1995) when they examined children from grades four to six, in nineteen public elementary schools. The study suggested that boys in mother-alone
families were rated by teachers to be four times more likely to be aggressive than boys in mother-father or mother-male partner families. Surprisingly, family structure did not affect aggression in girls. One explanation for this may be that girls adapt better because they are usually in the custody of their same-sex parent.

Child and Family Characteristics Which Increase Risk of Aggression

Information on 53 boys diagnosed with aggressive Conduct Disorder was collected by Kelso & Stewart (1986) and analyzed to determine which characteristics of the child or family best predicted continuing aggression. At the end of a two-year investigation, 24 boys were found to have improved, while 29 remained aggressive. Compared to the boys who improved, the boys who remained aggressive after two years showed the following - in order of priority:

1. more symptoms of conduct disorder when first assessed
2. mothers with fewer marriages (the authors explain that mothers with more marriages probably remarried men who were less likely to be antisocial or alcoholic)
3. a history of fire setting
4. the development of conduct disorder at an earlier age
5. more accidents requiring treatment before age 6
6. a family history of alcoholism or antisocial behaviour
7. a number of other problem behaviours
8. larger families  
9. families with low income  
10. more quarrels with peers  

The researchers suggest that these ten characteristics, measured at initial assessment, could be used to predict whether or not a boy’s behaviour is likely to improve. Those boys with a poorer prognosis would then require a more intensive treatment program.

**Mother-Child Interaction**

Gardner (1994) investigated the quality of mother-child interaction during joint activities to determine if there were differences in those interactions for children who had a behaviour problem and those who did not. Observations were made in the homes of twenty preschool children who had behaviour problems during 4 one-hour sessions. Results were compared with those of nineteen preschoolers who had no behaviour problems at home.

It was found that mothers of children with behaviour problems:

- initiated fewer activities  
- made fewer suggestions or attempts to keep the activity going  
- were less responsive to the child’s suggestions and questions  
- were more likely to show negative affect (e.g., anger, threats, hitting), and  
- were less likely to use sensitive forms of control.
This study points the way to simple educational processes for parents which can positively affect outcomes for their children. In playing with their children, parents can help their emotional development by some simple interactions, such as:

- initiating activities
- teaching them how games should be played
- asking questions
- and being responsive to the child's ideas and suggestions.

The psychological health of parents, and in particular mothers, has been recognized as important in contributing to the well being of offspring. Maternal depression is seen as very disruptive to the normal bonding and interactional processes of parents and children. It affects that development process in a variety of ways. Other things which may impact upon parent-child interactions are parental difficulties associated with neurotic behaviours, long-standing personality problems, alcohol and drug abuse, recent bereavements and marital difficulties (Wilkinson, 1993).

**Parental Health and Well Being**

A number of factors, therefore, influence family and child development patterns. Parental health, the marriage partnership, parenting history (i.e., both parents' experiences of being parented) and the availability of social support for parents impact upon how they relate (or are able) to relate to their children. Children in families with these difficulties experience both internalizing problems (i.e., anxiety and depression) and externalizing
problems such as oppositional defiant disorder. Children do not have a sophisticated vocabulary or understanding of their emotional problems. They often cannot verbalize the exact nature of their feelings and do not know why they feel the way they do. With internalizing disorders, children keep their feelings inside and may experience hyperapathy, unaccountable tearfulness, or psychosomatic complaints. Externalizing disorders will manifest as acted-out behaviours, usually of a disruptive, aggressive, or destructive nature.

Marital Conflict

Webster-Stratton & Hammond (1999) examined whether the link between marital conflict management style and child conduct problems with peers and parents is direct or mediated by mothers' and fathers' parenting style (critical parenting and low emotional responsivity). One hundred and twenty children, aged 4 to 7 years, were observed interacting in a laboratory playroom solving a problem with their best friend as well as at home with their parents. In addition, all the children's parents were observed in a laboratory setting trying to solve two family problems as well as at home interacting under more natural conditions with each other and with their children. Mothers and fathers completed questionnaires assessing marital problem solving as well as reports of their children's behavior problems.

Results indicated the following:

- a negative marital conflict management style had direct links with children's conduct problems.
the linkage between negative marital conflict management and children's interactions with parents and peers was found to be mediated by both mothers' and fathers' critical parenting and low emotional responsivity.

This study supported the negative effects of an indirect as well as the direct model of negative family interactions. It points to the impact of family system dynamics; i.e., the inability of the parents to amiably resolve marital conflicts contributed to strained patterns of interaction, which then contributed to low emotional responsivity toward children, which then resulted in child conduct problems with peers and parents.

Dumas (1996) compared families with disruptive children who were referred for psychological services and families who were not, finding that referred families were more aggressive and less approving overall. Families referred were found to have the following characteristics: 1) more dysfunction, 2) children who were more aggressive toward their mothers, fathers, and siblings; and 3) mothers who were more aggressive toward their children. Referred families were positive in their expression only 30% of the time compared to 80% among average families. Concerning differing levels of control, it was found that while families did not differ significantly on level of control, they did differ in their responses to control attempts. Referred families complied to such attempts 61% of the time, non-referred families 72%, and average families 80% of the time. It was concluded that referral status of children with disruptive behaviour problems may be representative of high levels of aggressiveness and low levels of praise or positive expression.
Dysfunctional Parenting Practices

Research has indicated that dysfunctional parenting practices play a role in the development of child psychological disorders (Jacob, 1987). Child physical abuse is a outcome of extremely dysfunctional parenting. As has been seen, abused children are at high risk of developing behavioural problems and psychological disorders (Burgess and Richardson, 1984; Cicchetti and Olsen, 1990).

Physically abused school-aged children present a significantly greater number of behavioural problems than nonabused children. Rogeness et al. (1986) studied records of 539 emotionally disturbed children between the ages of 4 to 16 years. It was discovered that abuse and/or neglect (probable or definite) had occurred in 42 percent of the boys and 41 percent of the girls. Three groups of children were formed to compare psychopathology and cognitive ability:

1) abused only children
2) abused and neglected children
3) children with no history of abuse or neglect.

Because children who were neglected and abused were similar to children who were only neglected, a single group was formed. Intellectual functioning, diagnosis, and aggressive behaviour were also examined separately by gender.

An impact on cognitive ability was evident:

- In relation to cognitive ability, neglected and abused boys had significantly lower verbal IQ scores than solely abused boys or boys with no history of abuse or neglect.
Neglected and abused girls had lower performance and verbal IQs than the group neither neglected or abused.

Psychopathology and conduct disorder:

- In terms of psychopathology, abused girls and boys and neglected boys were more likely to receive a diagnosis of conduct disorder.
- Significantly more neglected boys were diagnosed as conduct disorder undersocialized.
- Abused girls showed more conduct and hyperactivity symptoms.
- Neglected and abused children had concentration problems.
- Abused and neglected boys displayed more borderline and conduct symptoms and less anxiety than the group with no history of abuse or neglect.

Behavioural Difficulties:

- Concerning behaviour, neglected boys showed more impaired relatedness than the others. Boys who had been abused demonstrated more aggressive behaviour such as more homicidal threats, fire setting and cruelty to animals than the other two groups.
- Girls did not show any differences in these behaviours.

Abuse is associated with deviant child behaviour, impaired relatedness and reduced levels of cognitive functioning. The authors suggest that the different results between genders may be due to different responses to abuse or neglect, or a different selection process of victims based on gender.
Academic and Disciplinary Problems

Eckenrode, Laird & Doris (1993) studied 420 maltreated children enrolled in public schools (K-grade 12) to determine if children who are maltreated (neglected, sexually abused, and/or physically abused) had academic and disciplinary problems. The children were sampled from those listed in the New York State Child Abuse and Maltreatment Register which contained computerized files of all substantiated child maltreatment reports in the state since 1974.

The average age of the maltreated children was 10.9 years. Fifty-eight percent of the sample were girls and 42% boys. Of the total, 216 children were neglected only, 52 were sexually abused only, 49 were physically abused only, 38 were both physically abused and neglected, and 56 were both sexually abused and neglected. Children who had all three forms of maltreatment were excluded because of the small sample size of nine. Maltreated children were matched with non-maltreated children on gender, grade level, school, residential neighborhood, and classroom.

Results indicated that maltreated children had:

- lower grades
- were more likely to repeat a grade
- had more disciplinary referrals to school principals
- and more suspensions.

Children who experienced neglect, alone or in combination with abuse, had the lowest level of academic achievement. Children who experienced physical abuse alone had the most disciplinary problems.
Oppositional Defiant Disorder

Most, if not all, children are oppositional from time to time, particularly when tired, hungry, stressed or upset. It is within the range of normal behaviour for children to argue, talk back, disobey, and defy parents, teachers, and other adults. Two to three-year-olds and young adolescents progress through oppositional stages of development when they are learning to assert themselves. However, angry and hostile behavior which is so frequent and consistent that it stands out when compared with other children of the same age and developmental level is a serious concern. When the child's social, family, and academic life are compromised by his/her behaviour, then assessment and intervention are indicated. In children with Oppositional Defiant Disorder (ODD), there is an ongoing pattern of uncooperative, defiant, and hostile behavior toward authority figures that seriously interferes with ongoing functioning. Symptoms of ODD may include:

- deliberate attempts to annoy or upset people
- blaming others for his or her mistakes or misbehavior
- active defiance and refusal to comply with adult requests and rules
- excessive arguing with adults
- often being touchy or easily annoyed by others
- frequent anger and resentment
- mean and hateful talking when upset
- revenge seeking

For a diagnosis of ODD to be present, the symptoms are usually seen in multiple settings, but are probably most noticeable at home or at school. Five to 15 percent of all
school-age children have ODD. The causes of ODD are unknown, but many parents report that their child with ODD was more rigid and demanding than the child's siblings from an early age. Biological and environmental factors may play complementary roles in giving rise to ODD symptoms.

A child presenting with these symptoms should have a comprehensive evaluation with a medical professional. It is important to look for other disorders which may be present such as attention deficit hyperactive disorder (ADHD), learning disabilities, mood disorders (depression, bipolar disorder) and anxiety disorders. It may be difficult to improve the symptoms of ODD without treating the coexisting disorder. Some children with ODD may go on to develop Conduct Disorder. Without treatment and intervention Conduct Disorder may be the next step along the pathway to antisocial personality disorder.

“Behaviour problem” is a term used to refer to difficulties in the child's behaviour which may be occasional, situation-specific, and not necessarily a result of emotional problems or social problems. It is important to contrast “behaviour problem” with oppositional defiant disorder, which is a more serious manifestation of difficulties and one which requires treatment.

Formal diagnostic Criteria for Oppositional Defiant Disorder (ODD), as laid out in the Diagnostic and Statistical Manual (1994), are as follows:

A pattern of negativistic, hostile and defiant behaviour lasting at least 6 months, during which four (or more) of the following are present:

1) often loses temper
2) often argues with adults
3) often actively defies or refuses to comply with adults requests or rules
4) often deliberately annoys people
5) often blames others for his or her mistakes or misbehaviour
6) is often touchy or easily annoyed by others
7) is often angry and resentful
8) is often spiteful or vindictive

- The criterion is met only if the behaviour occurs more frequently than is typically observed in individuals of comparable age and developmental level.
- The disturbance in behaviour causes clinically significant impairment in social, academic, or occupational functioning.
- The behaviours do not occur exclusively during the course of a psychotic or mood disorder.
- Criteria are not met for Conduct Disorder (CD); and if the individual is age 18 years or older, criteria are not met for Antisocial Personality Disorder (APD).

Shamsie (1994) points out that 5.7% of children suffer from oppositional defiant disorder. One third of all children with any disorder are also diagnosed as having oppositional defiant disorder and it tends to be more prevalent among boys. When professionals are consulted, parents have usually become very concerned about their inability to control the behaviour of the child. Many express feelings of ineptitude,
exasperation, and helplessness. Parents can be helped to understand the disorder and its manifestation, as well as how to handle associated problems. An appreciation of age-appropriate emotional development is required, plus an appreciation of how emotional problems manifest in children (Rutter, Taylor & Herson, 1994).

Good behaviour is a matter of socialization and by the age of 4-6 years, most children have learned to comply, to respect and to cooperate. Some children, however, develop oppositional defiant disorder and the following reasons are likely correlated (Shamsie, 1994):

- There is no consistent adult caring for the child which happens with divorce, separation, or removal of the child from parents because of abuse
- The child gets different messages from adults as a result of parental disagreements
- The parent is unable to set clear boundaries and consistently reward good behaviour and consequence bad behaviour
- The child requires extra patience and energy because of difficult temperament or ADHD
- The parent is unable to meet the normal demands of the child due to depression, anxiety, or other psychological or medical disorders.

Serious difficulties with ODD begin as the child grows in size and strength and is able to use aggressive behaviour easily to attain needs and wants. As these children grow older, many develop behaviours which are symptoms of Conduct Disorder. These behaviours include hitting, stealing and destruction of property. Parents must be made
aware that aggression in a child is a serious symptom. They should be encouraged to ask for help, particularly if their own efforts to control the behaviour have been unsuccessful and they are feeling helpless to rectify the problem. Treatment and intervention strategies should be accessed as early as possible, before relationships deteriorate and entrenched patterns of dysfunction set in.

Studies of Conjoined Influences

Abuse and Neglect - Differentials in the Promotion of Aggression

Reidy (1977) studied the influence of child abuse in promoting aggression in young children. Three groups of children whose average age was 6.6 yrs were compared:

1) physically abused children
2) children registered with social service agencies, and
3) children from a day care centre.

All children were examined psychologically for evidence of aggressive fantasies and aggressive behaviours in a free-play situation. Teachers also rated their levels of aggression.

The findings showed that parental neglect does influence aggressiveness, but not quite as strongly as physical abuse. Physically abused children were found to have more aggressive fantasies and more aggressive free-play than either of the other two groups. Both the abused and neglected children, however, were rated as more aggressive than children with no history of abuse or neglect.
Familial and Temperamental Factors

Temperament can be considered as the earliest, innate, genetically influenced aspect of a child's personality. It is moderated by experience and by family and cultural roles (Prior, 1992). Studies in personality theory (Widiger & Costa, 1994) have led to the recognition of five main factors:

- introversion versus extroversion (sociability)
- emotional stability versus emotional reactivity
- compliance versus stubbornness
- conscientiousness versus self-control
- curiosity versus need for stability

Knowledge of these factors may be particularly important where parents use methods of control which do not suit the child's temperament. Children with ODD express their disturbance in anger, defiance, resentment and vindictiveness. It is easier to work with these difficulties when children are young, than when they reach adolescence.

Concise studies of the disorder in combination with influences such as temperament can provide theory and guidelines for intervention. One such study by Olweus (1980) examined the conjoined influence of familial and temperamental factors in the development of aggressive reaction patterns. The sample comprised 76 grade-six boys and their parents. Two kinds of interpersonal aggression were assessed via peer ratings: 1) starting fights and 2) verbal aggression against teachers and peers. Parental and temperamental information was obtained by separate structured interviews with mothers and fathers separately. Two independent raters scored the parents' responses on
four factors thought to determine the degree of interpersonal aggression:

- *mother's negativism* - rating of the mother's hostile, cold, rejecting attitude towards the boy during his first 4 to 5 years.

- *boy's temperament* - ratings of level of activity and hot-temperedness in the early years were combined.

- *mother's permissiveness for aggression* - this was a rating of mother's degree of laxity with respect to aggressive behaviour.

- *mother's and father's use of power-assertive methods* - defined as the use of physical punishment, threats, and violent outbursts as disciplinary measures.

Results indicated a significant relationship found between all four factors combined and the level of interpersonal aggression shown by the boys. The combination of the following was likely to result in a high level of interpersonal aggression:

- mother's negativism
- child's overactive temperament
- mother's permissiveness for aggression
- parents' use of power-assertive methods for discipline.

Each of these factors alone made a substantial contribution, but the most important factors were *mother's permissiveness for aggression* and *mother's negativism*. The analysis indicated some pairing among the four factors:

- mother's negativism was related to father's use of power assertive methods
- the boy's overactive temperament was related to mother's permissiveness for aggression.
Although weaker, the same significant results were found when the study was repeated with boys in grade 9. The author suggested that weakened results may have been due to the lessening influence of early familial factors, as children began to interact more with their peer groups.

It was concluded that a mother’s negative, indifferent attitude and lack of positive regard appeared to be more detrimental to the boy’s personality development, than the use of physical punishment. However, it was shown that a negative, basic attitude and use of power-assertive disciplinary methods often occur together. The author has speculated on two possible paths for the development of aggression:

1) mother’s negative emotional attitude leads to use of power assertive methods and both lead to aggression and
2) boy’s overactive temperament leads to mother’s laxity in response to aggressive behaviour and both lead to aggression in the boy.

Research of this type which examines combinations of variables is useful because it more closely reproduces the child’s world as it actually is: a set of interacting interwoven structures and relationships resulting in complex causal configurations at various levels.

Psychiatric Disturbance of Parent and Child

The extreme dysfunctional practices of physically abusive parenting leave their marks in many different domains of child competency. Monane, Leichter, & Lewis (1984) examined the records of 166 psychiatrically hospitalized children and adolescents (aged 3-17 years) for evidence of physical abuse and violence, as well as information
concerning their parents. Two groups were compared:

1) children who had been physically abused
2) those who had not been abused.

In comparison to the incidence of known child abuse in the general population which is less than 1 percent, evidence showed that 42 percent of children admitted to the psychiatric ward had strong evidence of physical abuse. Two-thirds of these children were abused by their parents and one third were abused by someone outside the family (e.g.: babysitter, boyfriend, etc.). In comparison to the nonabused group, the abused children were more likely to be violent. The parents of the abused group were more likely to be psychiatrically disturbed themselves. In spite of the fact that most of these children were abused by their parents, they usually became violent towards people outside their family. It is suggested that psychiatric disturbance of both the parent and child created stress which both parties were unable to cope with.

Additive Effects of Childhood Abuse and Neglect

Brown, Cohen, et al. (1999) investigated the magnitude and independence of the effects of childhood neglect, physical abuse, and sexual abuse on adolescent and adult depression and suicidal behaviour. A cohort of 776 randomly selected children was studied from a mean age of 5 years to adulthood in 1975, 1983, 1986, and 1992 during a 17-year period. Assessments included a range of child, family, and environmental risks and psychiatric disorders. A history of abuse was determined by official abuse records and by retrospective self-report in early adulthood on 639 youths. It was found that
adolescents and young adults with a history of childhood maltreatment were 3 times more likely to become depressed or suicidal compared with individuals without such a history. Adverse contextual factors, including family environment, parent and child characteristics, accounted for much of the increased risk for depressive disorders and suicide attempts in adolescence but not in adulthood.

The effects of childhood sexual abuse were largest and most independent of associated factors. Risk of repeated suicide attempts was 8 times greater for youths with a sexual abuse history. The odds of a depressive disorder was 3.4 to 4.5 times greater in those for whom child maltreatment was identified. In adolescents, at least some fraction of this elevated risk appears to have been attributable to the other contextual factors that were associated with childhood abuse or neglect; in fact, the odds ratio decreases from 3.28 to 2.63 after controlling for these factors. Adolescence is the most vulnerable period for those youths who may attempt suicide repeatedly.

It has been found that the family circumstances in which abuse and neglect take place are often extremely complex, involving a range of other potential risks for subsequent disorders in the offspring. These risks include at least 4 major domains:

- risk factors in the child such as handicap, chronic illness, or difficult temperament
- dysfunctional child-rearing and family relationships
- parental substance abuse, poor health, or very young age
- poverty and related stresses in the family and the community.

(Belsky, 1993; Brown et al., 1998).

Because these contextual factors are often present, it is unclear whether the
negative outcomes in the child that are attributed to abuse are actually specific effects of abuse. Alternatively, they may be due to the environmental and familial context in which abuse and neglect occur. If so, our attention to identified cases of abuse would need to focus heavily on these associated risks, rather than on more limited efforts to prevent further outright abuse or neglect.

It was found that dysthymia (chronic depression with many related symptoms) and major depressive disorder were elevated in those with a history of abuse or neglect, and these disorders were elevated throughout both adolescence and young adulthood.

Chronic Family Adversity: A Longitudinal Study of Low-Income Families

Various types of family stressor problems—such as depression and dissatisfaction with life problems in the family environment, such as marital discord and parenting hassles—contribute to the risk of aggression and other behavior disorders, particularly in boys from low-income families. Shaw, Winslow, et al (1998) at the University of Pittsburgh designed a longitudinal study to test the relation between multiple family stressors and young children’s adjustment problems. They collected data on 300 low-income, ethnically diverse, male subjects beginning during infancy and followed them intensively until age three and a half, assessing outcomes at age 18. The study targeted boys because of their higher rate of antisocial behavior.

The researchers looked at four different types of family stressors:

1) signs of distress in the mothers, such as depression and dissatisfaction with life
2) problems in the family environment, such as marital discord and parenting hassles
3) criminal and aggressive behavior at home and in the neighborhood
4) social/economic risk factors, such as low income and overcrowding.

Results supported the family stressor hypothesis. Stressor groups at 18 and 24 months predicted Child Behavior Checklist Externalizing and Internalizing factors at 24 and 42 months, including clinically elevated problems. A summary of key findings follows:

• The relationship between family troubles and behavior disorders is established as early as two to four years old.
• Boys with family stressors in three of the four areas had significantly increased rates of behavior problems.
• The relationship was especially strong for aggression and conduct-type behavioral problems, but also for anxiety and depression.
• For boys with family stressors in all four areas, the rate of behavior problems was 15 times higher than for boys with stressors in none of the areas.
• Nearly two-thirds of boys in the high-stressor group developed problems severe enough to require the attention of a child and adolescent psychiatrist.

These results confirm the link between chronic family troubles and behavior problems in boys. They suggest that the problem starts in the earliest years, with family stressors in infancy leading to behavior problems in preschool, which become clinical behavior disorders by the time the child reaches school age.

For child and adolescent psychiatrists and other professionals who work with
young children, the findings underscore the need to explore factors in the child's life--inside and outside the family--that affect the adjustment of the child, parents, or both. The same stressors that predispose to behavior problems, if not corrected, may also keep treatment from being effective. They suggest that psychological evaluations of young children need to be ecologically based, including intra- and extrafamilial factors that appear to cumulatively increase risk of behavior problems (Shaw, Winslow, et al., 1998).

**Magnitude of the Problem**

The U.S. Department of Health and Human Services (2000), National Center on Child Abuse and Neglect sponsors the National Incidence Study (NIS) of Child Abuse and Neglect. This large-scale study is made possible by the support of a multitude of professionals: caseworkers, teachers, police officers, social workers, probation officers, nurses, and other professionals who contributed their time in the effort to assess accurately the incidence, nature, and distribution of child abuse and neglect in the United States. Fifty-six hundred professionals in 842 agencies serving 42 counties participated. Their input greatly enhances data provided from formal reporting by Child Protection Services (government agency).

The report (Sedlack and Broadhurst, 1996) includes background and objectives, design and methods and data according to children's characteristics, family characteristics, and perpetrator characteristics. The study used two sets of standardized definitions of abuse and neglect: the Harm Standard and the Endangerment Standard.
The Harm Standard is relatively stringent in that it generally requires that an act or omission result in demonstrable harm in order to be classified as abuse or neglect. The chief advantage of the Harm Standard is that it is strongly objective in character. Its principal disadvantage is that it is so stringent that it provides a view of abuse and neglect that is too narrow for many purposes, excluding even many children whose maltreatment is substantiated or indicated as abuse or neglect by Child Protective Services (CPS).

The Endangerment Standard includes the full set of substantiated/indicated children in the incidence statistics. The Endangerment Standard includes all children who meet the Harm Standard but adds others as well. The central feature of the Endangerment Standard is that it allows children who were not yet harmed by maltreatment to be counted in the abused and neglected estimates if a non-CPS sentinel considered them to be endangered by maltreatment or if their maltreatment was substantiated or indicated in a CPS investigation. In addition, the Endangerment Standard is slightly more lenient than the Harm Standard concerning the identity of allowable perpetrators in that it includes maltreatment by adult caretakers other than parents in certain categories as well as sexual abuse perpetrated by teenage caretakers.

Duplicate forms about the same child were identified and unduplicated, so that each child was included in the total database only once. Finally, the data were weighted to represent the total number of children maltreated in the United States and annualized to transform the information from the 3-month data period into estimates reflecting a full year. Different figures emerge with the two standards; the Endangerment standard is considered first.
The Endangerment Standard

The National Incidence Study (NIS) between 1986 (NIS-2) and 1993 (NIS-3) show that the total estimated number of abused and neglected children in the United States who fit the Endangerment Standard nearly doubled. In 1986, there were an estimated 1,424,400 abused and neglected children in the United States. The NIS-3 estimate of 2,815,600 reflects a 98-percent increase over the NIS-2 figure. Significant increases were found in both abuse and neglect. The number of abused children more than doubled from an estimated 590,800 to 1,221,800 (a 107% increase), while the estimated number of neglected children also more than doubled from 917,200 to 1,961,300 (a 114% increase). NIS-2 was conducted in 1986 and 1987 and published in 1988. NIS-3 data were collected in 1993 and 1994, analyses were conducted in 1995 and 1996, and results were published in 1996.

The Harm Standard

When abused and neglected children were classified according to the injury or harm they suffered from maltreatment that fit the Harm Standard, there was a substantial and significant increase in the incidence of children who were seriously harmed and a statistically marginal increase in the number for whom injury could be inferred due to the severe nature of their maltreatment. The estimated number of seriously injured children essentially quadrupled from 141,700 to 565,000 in the intervening 7 years between the NIS-2 and the NIS-3 (a 299% increase). The number for whom injury could be inferred increased from an estimated 105,500 children in the NIS-2 to an estimated 165,300.
chilàren in the NIS-3 (a 57% increase).

Child Characteristics

- Girls were sexually abused three times more often than boys.
- Boys had a greater risk of emotional neglect and of serious injury than girls.
- Children are consistently vulnerable to sexual abuse from age three on.
- There were no significant race differences in the incidence of maltreatment or maltreatment-related injuries uncovered in either the NIS-2 (National Incidence Study) or the NIS-3.

Family Characteristics

- Children of single parents had a 77 percent greater risk of being harmed by physical abuse (using the stringent Harm Standard), an 87 percent greater risk of being harmed by physical neglect, and an 80-percent greater risk of suffering serious injury or harm from abuse or neglect than children living with both parents.
- Children in the largest families were physically neglected at nearly three times the rate of those who came from single-child families. Children from families with annual incomes below $15,000 as compared to children from families with annual incomes above $30,000 per year were over 22 times more likely to experience some form of maltreatment that fit the Harm Standard and over 25 times more likely to suffer some form of maltreatment as defined by the Endangerment
Standard.

- Children from the lowest income families were 18 times more likely to be sexually abused, almost 56 times more likely to be educationally neglected, and over 22 times more likely to be seriously injured from maltreatment as defined under the Harm Standard than children from the higher income families.

Single-Parent Families

Children of single parents were at higher risk of physical abuse and of all types of neglect and were over-represented among seriously injured, moderately injured, and endangered children as illustrated in the table below.

Table 10.
Maltreatment of Children in Single Parent Versus Intact Families

<table>
<thead>
<tr>
<th>Maltreatment Risk Factors</th>
<th>Percentage of Increase for Single-Parent Families over Intact Families</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk of being harmed by physical abuse (using the stringent Harm Standard)</td>
<td>77</td>
</tr>
<tr>
<td>Risk of being harmed by physical abuse (using the Endangerment Standard)</td>
<td>63</td>
</tr>
<tr>
<td>Risk of being harmed by physical neglect</td>
<td>87</td>
</tr>
<tr>
<td>Risk of experiencing any countable physical neglect</td>
<td>165</td>
</tr>
<tr>
<td>Risk of being harmed by emotional neglect</td>
<td>74</td>
</tr>
</tbody>
</table>
Risk of experiencing any countable emotional neglect 64
Risk of being educationally neglected 220
Risk of suffering serious injury or harm from abuse or neglect 80
Risk of receiving moderate injury or harm as a result of child maltreatment 90
Risk of being endangered by some type of child abuse or neglect 120

Table 10 is derived from statistics in the Executive Summary of the National Incidence Study (Sedlack & Broadhurst, 1996).

Compared with their counterparts living with both parents, children in single-parent families experienced greatly accelerated measures of increased risk. Among children in single-parent households, those living with only their fathers were approximately one and two-thirds times more likely to be physically abused than those living with only their mothers. These rather stark figures illustrate consequences of the added responsibilities and stresses of single-parenting together with the necessity for social and practical support for these parents.

Family Size

Family size showed a nonlinear relationship under the Harm Standard with incidence of two kinds of neglect.

- The incidence rates of physical neglect and educational neglect were highest for
children in the largest families (those with four or more children).

- *Intermediate* for "only" children
- *Lowest* for children in families with two to three children (mid-size families).

Children in the largest families under the Harm Standard, compared to children in families with two or three children, were almost three times more likely to be educationally neglected, and nearly two and two-fifths times more likely to be physically neglected. Under the Endangerment Standard, a linear relationship was evident. The pattern was one of increasing incidence of physical neglect with greater numbers of children. Children in the largest families were physically neglected at nearly three times the rate of those who came from "only" child families.

Additional children in a household mean additional tasks and responsibilities, so it is understandable that incidence rates of child abuse and neglect may be higher in these families. As to why "only" children have higher rates of educational neglect and of physical neglect than children in mid-size families, other explanations are proffered. One possibility put forth for the nonlinear relationship with "only" children was that only children have the entire complement of parental expectations (and disappointments) centered directly on them. In the larger families, these would be diffused over multiple children, alleviating the "spotlight" problem. Another possibility mentioned was that many "only" child households may represent beginning families with relatively young and inexperienced parents and caretakers.
Child Protective Services - Investigations

- CPS (Child Protection Services) investigated only 28 percent of the recognized children who met the Harm Standard. CPS investigated less than one-half of all Harm Standard children recognized by any source and less than one-half of all Endangerment Standard children recognized by any source except police and sheriffs' departments (52%).
- Schools recognized the largest number of children maltreated under the Harm Standard, but only 16 percent of these children were investigated by CPS.
- CPS investigated only 26 percent of the seriously injured and 26 percent of the moderately injured children.

Additional statistics have also been derived from the National Committee to Prevent Child Abuse (Child Abuse and Neglect Statistics, 2000).

Incidence of Maltreatment and Reporting Levels

- In 1994, over 3 million (3,140,000) children were reported for child abuse and neglect to child protective service (CPS) agencies in the United States. This figure represents a 4.5% increase over the number of children reported in 1993. Experts attribute much of the recent increase in reporting to greater public awareness of and willingness to report child maltreatment, as well as changes in how states collected or defined a reportable act of maltreatment (Wiese & Daro, 1995).
- Currently, about 47 out of every 1,000 children are reported as victims of child
maltreatment. Overall, child abuse reporting levels have increased 63% between 1985 and 1994.

- In 1994, 1,036,000 children were substantiated by CPS as victims of child maltreatment. This represents 16 out of every 1,000 U.S. children.
- According to the 1994 survey, physical abuse represented 21% of confirmed cases, sexual abuse 11%, neglect 49%, emotional maltreatment 3% and other forms of maltreatment 16%. These percentages have remained fairly stable since 1986 when approximately 27% of the children were reported for physical abuse, 16% for sexual abuse, 55% for neglect, and 8% for emotional maltreatment (American Association for Protecting Children, 1988).

Incidence of Child Maltreatment in the General Population

- In 1986, approximately 22.6 children per 1,000 experienced abuse or neglect. Only half of these incidents were reported to child protection services (Sedlak, 1990).

Child Fatalities

- In 1994, an estimated 1,271 child abuse and neglect related fatalities were confirmed by child protection services. Since 1985, the rate of child abuse fatalities has increased by 48%. Based on these numbers, more than three children die each day as a result of child abuse or neglect (Wiese & Daro, 1995).
- In 1994, those states which kept this statistic reported that almost 88% of these
children are less than five years old at the time of their death with 46% under one year of age (Wiese & Daro, 1995). As for cause of death, 42% of deaths resulted from neglect, 54% from physical abuse and 4% from a combination of neglectful and physically abusive parenting. Approximately 45% of these deaths occurred to children known to child protective service agencies as current or prior clients.

**Child Sexual Abuse**

- Studies of the general population of adults show that anywhere from 6 to 63% of females were sexually abused as children. A 1985 L.A. Times national survey found that 27% of women and 16% of men reported being sexually abused prior to age 18 (Finkelhor, 1986). The true extent of sexual abuse is unknown.

**Sexual Abuse in Day Care**

- A recent study of disclosed cases of child abuse in center-based day care revealed no added risk of sexual abuse for children sent to such a setting. While an average of 5.5 children per 10,000 enrolled in day care are sexually abused, an average of 8.9 children out of every 10,000 are abused in the home (Finkelhor & Williams, 1988).

- Based on information from 21 states in the U.S., reports of abuse in day care and foster care each represented less than 1% of all confirmed cases in 1994 (Wiese & Daro, 1995). This percentage has remained the same in recent years.
Substance Abuse and Child Abuse

- The link between substance abuse and child abuse has strengthened over the years. It is estimated that 9 to 10 million children under the age of 18 are directly affected by substance-abusing parents (Woodside, 1988).

- In 1994, eleven states had an average of 35% of their substantiated cases involve substance abuse, with the percentage ranging from 4% to 65% (Wiese & Daro, 1995).

- The national incidence for fetal alcohol syndrome is 1.9 per 1000 live births. Each year, at least 1 in 10 or 375,000 babies born in the United States have been exposed to illegal drugs taken by their mother during pregnancy (Ogintz, 1988). The effects of having been exposed to either illegal drugs or alcohol prenatally include low-birth weight, small head size, long-term medical complications, and increased incidence of SIDS (Sudden Infant Death Syndrome). In addition, exposed infants tend to be irritable, lethargic, and difficult to console which interferes with parent-child bonding and increases the likelihood of abuse or neglect.

These findings are extremely important because they present a clear and unequivocal picture of how children develop difficulties which lead to antisocial behaviour and other disorders. These elements operate cyclically through generations. Intervention must take place at any—and preferably—all points along a continuum of problems for both parents and children.
Conclusion

Summary of Abuse and Neglect on the Development of Antisocial Behaviour

It has been found that the impact of neglect and abuse on the socio-emotional behaviour of young people may include the development of antisocial behavior and delinquency, alcohol and drug use, increased risk-taking behaviors, poor attachment relationships, difficult peer relations, and problems with social competence, self-esteem, emotional development, and adult criminality. Research shows further that consequences of neglect may include developmental delays such as lower IQs, growth problems, decreased readiness for learning, and speech and language impairment.

The effects of child abuse are indeed profound and can have lasting effects on both social adjustment and success in life. Children who are abused tend to experience more social, emotional, and academic problems than non-abused children. As might be expected, the effects of combined types of abuse are additive. Physical abuse combined with psychological or emotional abuse that is explicit, intentional and systematic has more negative consequences for the child than physical abuse alone. Children who are both emotionally and physically abused exhibit the greatest degree of aggression, delinquency and interpersonal problems over solely physically abused children. Males are at greater risk of becoming aggressive and violent (Dutton & Hart, 1992). Females are more likely to suffer from depression, low self-esteem and suicidal thoughts.

In summary, the literature of abuse and neglect reveals that parental factors that contribute to child neglect include maternal depression, intellectual impairments, social isolation, financial problems, substance abuse, limited education, unemployment, marital
problems, and mental illness. Child-related risk factors for neglect may include
prematurity, chronic illness, and hearing impairment. Neglect has also been associated
with these variables:

- behavioral and psychological impairments
- maladaptive peer interactions
- insecure attachments
- social isolation
- depression, avoidance, low self-esteem
- lowered tolerance for frustration
- greater dependency
- attention problems
- (for boys) conduct disorder

**What Works: Intervention and Prevention**

**Early Tailored Intervention**

With many disorders, early intervention can act as a protector against long-term
mental and other health problems and disorders. Interventions should be tailored for
different ethnic, social, and cultural groups, or different types of communities (e.g., urban
versus rural). Intervention models should focus on various social and community settings
for ameliorating the effects of deprivation, maltreatment, or disruptive disorders on
antisocial behavior, delinquency, and school outcomes. The accessibility and influence of
setting (e.g., home, child care, institution, clinic, school, resource centers, foster care,
special education) on program participation and outcomes is important. Prevention includes strategy for assisting with oppositional defiant disorder, child abuse and neglect, and family functioning difficulties.

**Oppositional Defiant Disorder**

Children presenting with ODD symptoms should have a comprehensive evaluation with a medical professional. These children are non-compliant, angry and resentful, and they tend to blame others and refuse to accept blame themselves. Many children experience some of these symptoms when going through normal developmental phases toward independence and adulthood. When the symptoms are pronounced and prolonged, however, a clinical diagnosis is recommended. Other disorders may be present such as attention deficit hyperactive disorder (ADHD), learning disabilities, mood disorders (depression, bipolar disorder) and anxiety disorders. It may be difficult to improve the symptoms of ODD without treating the coexisting disorder. Some children with ODD may go on to develop Conduct Disorder. Without treatment and intervention, Conduct Disorder can develop into chronic antisocial personality disorder.

Treatment of ODD may include the following: parent training programs to help manage the child's behavior, individual psychotherapy to develop more effective anger management, family psychotherapy to improve communication, cognitive-behavioral therapy to assist problem solving and decrease negativity, and social skills training to increase flexibility and improve frustration tolerance with peers. A child with ODD can be very difficult for parents. These parents need support and understanding. Parents can
often best help their child with ODD by helping themselves in the following ways:

- **Building on the positives, and giving praise and positive reinforcement**
  when the child shows flexibility or cooperation.

- **Taking time-out or a break when conflict is imminent or seems to be escalating.**
  An angry, out-of-control parent makes the child worse, not better. This technique
  is also good modeling for the child.

- **Supporting the child if he decides to take a time-out to prevent overreacting.**

- **Choosing the battles wisely.** Since the child with ODD has trouble avoiding
  power struggles, parents should prioritize the things they want the child to do.

- **Setting up reasonable, age appropriate limits with consequences that can be
  enforced consistently.**

- **Maintaining interests other than the child with ODD, so that managing him/her
  child doesn't consume every bit of time and energy.**

- **Managing their own stress with exercise and relaxation and using respite care as
  needed.**

- **Enlisting the assistance of other adults (teachers, coaches, and spouse).**

Many children with ODD will respond to the positive parenting techniques. For
those situations where no improvement is seen, parents can ask their pediatrician or
family physician to refer them to a child and adolescent psychiatrist, who can diagnose
and treat ODD and any coexisting psychiatric condition.
**Neglect**

Intervention must attend to both the adult caretaker(s) and child victims of neglect and/or abuse with multi-disciplinary approaches. Areas which should be therapeutically addressed include the dynamics of the relationship between caretaker and child and the family system in which neglect occurs. Involvement of the larger social contexts of neglect would include family support systems, socioeconomic factors, neighborhood, school and community programs and resources (e.g., health care providers and health care delivery systems). It is recommended that mandated community response agencies (e.g., the police or protective service agencies), and prosecution and judicial responses address serious cases of neglect.

Individual and social protective factors may involve a teacher, the extended family, and other formal and informal social support, quality child care, community resources, and special education. Children who are or have been victims of neglect may have a need for access to special education and related services. Many of these children who have suffered from neglect and/or environmental deprivation in the preschool years have need of assistance with school-readiness, school adaptation, and academic achievement.

**The Family**

Family intervention is part of the treatment package for the most aggressive or delinquent adolescents, both in terms of intervention and prevention. Specific family goals should be set and then appropriate methods selected. Because getting the family to
participate is often difficult, a motivated therapist and a series of home sessions may be required. The therapist should have excellent relationship skills, as well as a knowledge of therapeutic techniques. Focusing specifically on parenting techniques, rather than attempting to deal with all other family issues, is often a recommended starting point. Retention in therapy and outcomes are, however, improved by a more holistic perspective. Teaching problem-solving skills and communication skills may have positive impact in other areas as well.

Shamsie et al. (2000) affirm that there is growing evidence that involving families in the treatment of disturbed antisocial and aggressive children and adolescents improves the rate of success. This is true because, in many cases, it is abuse or neglect within the family which has contributed to the child's problem. A study by Twaite & Lampert (1997) of homeless and truant children produced evidence that the intensity of parental involvement was related to the effectiveness of the program. The program included recreational activities such as cookouts and coffee hours to which parents were invited. Transportation and child care for younger children were provided to facilitate parents participation. The degree of parental involvement in the program and their understanding of the nature of the child's pathology was correlated positively with the degree of success. Shamsie et al. (2000) comment that it is common for professionals to develop a negative attitude towards parents who have been abusive and neglectful. There is a natural tendency to want to protect the child from the negative influences of the family. Sometimes this must be achieved through the help of the family court. Parents themselves may resent and feel hostile towards professionals and agencies, fearing
criticism and blame. This can lead to a deadlock between professionals trying to help the child and the family, *most often to the detriment of the child*. There is growing evidence that without family participation, the chances of helping the child are markedly reduced. Parents should therefore be involved as much as possible even when they have contributed to the child's difficulties.

Shamsie, Nicholl & Madsen (2000) note that some research has suggested that treatment should focus solely on parenting techniques to the exclusion of other family and adult concerns. This is a narrow approach which can drive some families out of treatment and prevent the children from receiving help. Since parents are often feeling overburdened, fed up, and exasperated when they seek help, the broader context of their experience needs to be honoured in the therapeutic relationship. Focusing on parenting issues often means asking parents to learn new techniques, change their behaviour, and take on more responsibility. Hence, to help reduce the stress that sometimes is associated with participating in family therapy, support should be given to parents in others areas of their lives besides just parenting.

**Multisystemic Therapy**

Multisystemic Therapy (MST, 2000) is one of the newer effective treatment methodologies which has produced good results with serious, violent, and chronic juvenile offenders. MST is an intensive family-and community-based treatment that addresses the multiple factors known to be related to delinquency across the key settings, or systems, within which youths are embedded (e.g., family, peers, school,
neighborhood). MST strives to promote behavior change in the youth's natural environment, using the strengths of each system to facilitate change.

Henggeler et al. (1999) found that multisystemic therapy (MST), modified for use with youths presenting psychiatric emergencies in terms of aggressive and violent behaviours, can serve as a clinically viable alternative to inpatient psychiatric hospitalization. One hundred sixteen children and adolescents approved for emergency psychiatric hospitalization were randomly assigned to home-based MST or inpatient hospitalization. Assessments examining symptomatology, antisocial behavior, self-esteem, family relations, peer relations, school attendance, and consumer satisfaction were conducted at 3 times: within 24 hours of recruitment into the project, shortly after the hospitalized youth was released from the hospital (1-2 weeks after recruitment), and at the completion of MST home-based services (average of 4 months post-recruitment). Results showed that MST was more effective than emergency hospitalization at decreasing youths' externalizing symptoms and improving their family functioning and school attendance. Hospitalization was more effective than MST at improving youths' self-esteem. Consumer satisfaction scores were higher in the MST condition. The findings support the view that an intensive, well-specified, and empirically supported treatment model, with judicious access to placement, can effectively serve as a family-and community-based alternative to the emergency psychiatric hospitalization of children and adolescents.
Overcoming Traumatic Reenactment Patterns

As has been shown in previous chapters, violence suffered in childhood--in the form of sexual or physical abuse and/or neglect--has long term consequences which include a host of problems including psychiatric or emotional disturbance and aggressive and violent behaviour. Familial violence tends to occur in cycles and it is known that these cycles of violence are passed on from generation to generation and remain remarkably intact (Torrey, 1994). Once a style of aggressive response becomes characteristic in an individual, whatever its causes, it remains quite stable across time, situation, and even generations within a family, as seen in studies of fathers and sons and son's children (Haussmann, 1984).

Bloom (1997) believes it is imperative to help adults to uproot early trauma in their lives in order to stop the repetition of the violence that was done to them. Because patterns of early childhood development repeat, it is important to intervene at all points along the continuum of dysfunction. Changing the response to the original trauma is essential if traumatic reenactment patterns are to be overcome. Individuals who have been traumatized in childhood by abusive authority or sexual relationships will unconsciously create situations in which they will emerge repeatedly. Set responses have been established and will be continually reenacted automatically and unconsciously. They will remain intact until the psyche can deal with and heal the original trauma and begin conscious modification of the response patterns.

Bloom is a psychiatrist and recognized expert in the field of trauma research and healing, as well as executive director of a hospital and president of three medical
associations, including Physicians for Social Responsibility. She established a model
hospital-based treatment approach formulated as “The Sanctuary Model of Inpatient
Treatment” (Bloom, 1997, p. 104-106) to address the needs of adults who were
traumatized as children and to prevent the multigenerational transmission of traumatic
experience. Bloom observes that once her staff became more adept at recognizing
patterns repeating in the lives of their patients, they were more able to anticipate and
predict what individuals would do, based on their early experiences. Bloom comments
on how that early learning influenced patients’ interaction patterns:

If they had learned as children to cope with abuse by being obedient and
compliant, then they would behave this way toward us ... If they had learned as
children that they could decrease the amount of pain they experienced by resisting
authority, then we could count on them to start fights and to strongly resist and
misinterpret our efforts to help. If they had learned as children that there was
nothing they could do except “disappear,” then they would dissociate under
circumstances of even minimal stress. ...Essentially, we knew that every patient
represented a split self - a functioning, reasonable adult, and a hurt and angry
child. ....For people who have had truly terrible parenting, this struggle is constant.
...Their struggles look bizarre and nonsensical only as long as we fail to
understand the circumstances of their early childhood development. (p.150)

The quantitative picture of abuse and neglect presented in this chapter is alarming. The
qualitative picture of fractured lives is equally devastating. Bloom (1997) summarizes
the healing process:
Traumatic experience is fragmenting: a healing experience must be defragmenting or integrating. Different aspects of the self must learn to live together in harmony. Memory must be recaptured and put into words so it can reenter the stream of time. Speech reconnects us to others but also reconnects us to ourselves. Memory, speech, cognition, and feeling must all be integrated into a narrative whole. Out of integration comes wholeness and out of wholeness can come meaning. Trauma creates existential dilemmas that are overwhelming and incomprehensible. We are a meaning-making animal. To achieve psychological safety, we must make sense out of what has happened to us or our reality is not bearable. Making sense out of child abuse is difficult to do. (p. 117)

Attachment Issues Through Generations

Longitudinal research has begun to show that patterns of early attachment are related to a child's behaviour in school, at home and in social situations at least to the tenth year. A child's attachment style is also consistent with parenting characteristics and parental attachment style (Berman and Sperling, 1994). Main and Hesse (1990) identified an attachment style called the disorganized/disoriented attachment. This style is characterized by a lack of coherent strategy of relating to the caregiver. The behaviour of these children is inconsistent and contradictory - they appear to be caught in dilemma - their attachment figure is also the source of fear. They respond to this conflict with mental, emotional and behavioural disorganization and confusion. This style of attachment has been found to be highly correlated with parents who have unresolved
traumatic loss in their own backgrounds. The parent's state of continuing fear and the
behavioural components of this fear state frighten the child. This may cause symptoms
similar to ADHD -- a disorder currently being experienced almost in epidemic
proportions -- for which pharmacological solutions have become the norm. Further
research in this area is recommended.

Another disturbed attachment relationship is called "trauma bonding" and is
probably how the multigenerational transmission of traumatic experience actually
happens. Considerable evidence suggests that an individual's relationship history is an
important variable determining parental behaviour (Zeanah and Zeanah, 1989). In simple
terms, people tend to raise their children the way they themselves were raised.
Attachment styles are repeated and become organizing themes of relationships. Early
attachment experiences set the tone and are likely to determine the kinds of partners with
whom new attachments are formed most easily and the developmental course of new
attachments (Weiss, 1991). Bloom (1997) found that if individuals had experienced a
traumatic loss or traumatic betrayal of parental care, it would often be reenacted. She
describes the phenomenon in a powerful way: "Beatings, incest, abandonment, neglect,
humiliation, rape, assault - these things did not occur to responsible and empowered
adults, but to innocent and helpless children who were powerless to do anything to
change their fate. And then we wonder why these same children have trouble
differentiating right from wrong and developing a respect for justice and the law. ...Once
we stepped into the shoes of the children our patients once were, we were in deep waters.
From that starting point, it became relatively easy to understand how they had tried to
cope, how few were their resources, how they had found it necessary to make enormous sacrifices just to go on living and functioning. ” (p. 111).

The multi-generational aspect of family functioning and mythology is also well-documented in popular family systems literature (Heilveil, 1998, Satir, 1988; Bradshaw, 1988, 1990; Whitfield, 1987, 1991; Foster, 1993) and others. The self-help movement has been a powerful force in helping people to deal with dysfunctional backgrounds. Many programs are variations of the proven Twelve Step Alcoholics Anonymous format for healing.

**Summary of Prevention Strategies**

In terms of prevention, environmental processes for risk-assessment and management include:

- the influence caregivers (mothers, fathers, and mother/father substitutes as primary caretakers), availability and quality of child care settings and providers
- social/behavioral histories of caretakers (history of neglect, domestic violence, criminal activity)
- family structure and functioning (e.g., single parent, alcoholic father),
- parenting knowledge, family isolation, family conflict resolution processes,
- chronic childhood illness, child disruptive behavior problems, difficult child temperament, child disability, mental disorder and emotional problems (e.g., depression, loneliness), substance abuse, interpersonal situations (acting-out behaviours)
cultural, social, religious, or ethnic differences in causes, patterns, and contexts of neglect, (e.g., different cultural views about behavior among family members, parental rights, and the definition and significance of neglect)

It is recommended that intervention and prevention processes to reduce risk of neglect and abuse be based on theory-driven strategies. These would include:

- programs targeted toward at-risk individuals or families (e.g., early home visitation and parent training programs - see chapter six).
- low-income child care and family preservation services as required by participant characteristics (e.g., poor or young mothers, child's developmental stage, individual cognition, coping responses, behavior patterns, substance abuse and/or emotional reactions of caretakers or victims), family structure.
- increased access to services and reduction of barriers to intervention delivery or effectiveness as a function of social group membership or factors in the setting in which the intervention occurs; i.e., sensitivity to population characteristics, cultural values, or intervention components that may affect identification or help-seeking processes.
- streamlining of legal processes, protective services, and mental health services both separately and in combination with court-ordered interventions (e.g., mandatory reporting, foster care, termination of parental rights, kinship care, police response and involvement) as the means of preventing or ending neglect.
- identification of specific neglect populations and their caretakers; e.g.,
co-occurrence with substance abuse, sexual or physical abuse, cruelty to animals, exposure to community violence.

- investigation of the effect of non-residential, parental involvement as either a causative or preventative factor in neglect. Involvement may take the form of financial support, visitation, or specific types of interactions with the child.

- investigation of the co-occurrence of child neglect with domestic violence, including studies of the incidence and prevalence of child neglect in families experiencing domestic abuse, impact of domestic violence on parenting abilities and behaviors, consequences of neglect within the context of domestic violence, effect of court response to domestic violence, and effectiveness of interventions for domestic violence in reducing the risk of child neglect or in ameliorating its consequences.

- investigation of the co-occurrence of child neglect with disabling conditions, including studies of neglected children with disabilities which adversely affect educational performance.

This chapter has dealt with family and home environment influences on the development of antisocial behaviour. It has been argued childhood behavioural, emotional and social difficulties are never context-independent. Manifold influences combine to produce antisocial and aggressive behaviour and multiple avenues of approach are, therefore, necessary for intervention and prevention. The next chapter considers influences for antisocial behaviour in the school and neighbourhood.
CHAPTER FIVE

INFLUENCES RELATED TO THE SCHOOL AND COMMUNITY

Introduction

The literature review to this point has shown that a complex interaction pattern among various factors leads to an increased risk of violent behavior in children and adolescents. These factors include pathological family relationships (abuse and neglect), exposure to violence in the home, genetic (heredity) factors, exposure to media violence, confluence of stressful family socioeconomic factors (poverty, marital discord, single parenting, maternal detachment, paternal involvement with the criminal justice system), brain damage, and genetically-based disorders, including ADHD. The relationships between these factors and the development of antisocial behaviour is not straightforward. They tend to work in complex configurations which together can lead towards externalizing and internalizing (behavioral or emotional) disorders. Multiple influences tend to give rise to more complex and difficult behavioural outcomes.

This chapter reviews socio-cultural factors related to the development of antisocial behaviour in young people in the school and the community. Socioeconomic disadvantage, peer rejection in school, bullying, the influence of poverty and the effects of youth gangs are considered.

Socioeconomic Status and Children's Behaviour Problems

Dodge, Pettit & Bates (1994) conducted a four-year study of the role of socialization, socioeconomic status and child behaviour problems among children from
preschool to grade three. The female head of the family was interviewed to assess the socioeconomic status of the family. Socialization was assessed through oral and written interviews with the female head and via direct observation by two home visitors. Eight socialization factors were examined: harshness of discipline, exposure to violence, stability of the peer group, family life stressors, maternal social support, maternal values regarding aggression, mother's warmth toward child, and cognitive stimulation in the home. Child behaviour problems were assessed through teacher ratings of externalizing problems and peer nominated aggression in kindergarten and grades 1, 2, and 3.

The results indicated socioeconomic disadvantage was related to child behaviour problems at school in each of the four years assessed. The early socialization of these children tended to involve frequent exposure to violence, a high degree of harsh discipline, frequent exposure to family life stressors, unstable peer group, a lack of cognitive stimulation in the home, and a mother who lacked social support, endorsed aggressive values for her child, and displayed little warmth towards her child.

It was found that poor socialization was a significant predictor of later behaviour problems and harsh discipline had the strongest negative effect. In terms of cultural differences, while socioeconomic status accounted for most of the differences in the behaviour, African-American children were exposed to more violence, had less cognitive stimulation, and had mothers who held more aggressive values than white children.

Regarding gender differences, mothers held significantly less aggressive values for their daughters than their sons. The disadvantages in socialization experienced by some children in single-parent families were directly related to economic disadvantage,
and were not due to being raised by a single parent. The authors concluded that children in poor families are more likely to lack proper socialization and to suffer these accompanying difficulties.

**Peer Rejection in School**

DeRosier, Kupersmidt, & Patterson (1994) examined data on 622 elementary school children over a 4-year period to assess the severity of peer rejection (in terms of frequency), and the length of time since they last experienced rejection. At the start of the study, the children belonged to one of three separate cohorts: those in second grade, those in third grade, and those in fourth grade. Information was obtained from school records, and from peer and teacher ratings to assess adjustment, behavioural and academic problems.

Findings indicated children who had high levels of behaviour problems in year one were likely to have the same high levels in year four and those who experienced severe rejection had even greater behaviour problems in year five. Severe and recent peer rejection tended to predict later problems, regardless of the child's initial level of adjustment. Children whose experience with rejection was both chronic and proximal (recent) were rated by their teachers as having higher levels of shy/anxious behaviour problems than children who were never rejected. As severity and proximity of rejection increased, boys experienced higher levels of behaviour problems than girls.

Recently rejected children displayed higher levels of acting out and aggressive behaviour than other children. Both chronically rejected and proximally rejected younger
children displayed more externalizing problems than their older counterparts. Children who had experienced rejection at least once, were absent from school more often than children who had never experienced rejection.

This study suggests that peer rejection is a risk factor for developing antisocial behaviour and adjustment problems. Interventions by day care staff and teachers in terms of monitoring peer relationships could help to prevent these difficulties. It is recommended that children who are without friends and those with whom no one wants to play be identified. In consultation with their parent(s), solutions to their problems can be worked out. Without intervention and social skills training, these children often end up taking on bullying roles at school.

**Bullying Behaviours in Schools**

Bullying is the assertion of power through aggression. Pepler and Craig (1997) note that the forms it takes change with age: playground bullying, sexual harassment, gang attacks, date violence, assault, marital violence, child abuse, workplace harassment, and elder abuse. Studies show that students who engage in bullying behaviors seem to have a need to feel powerful and in control. Further, they appear to derive satisfaction from inflicting injury and suffering on others, seem to have little empathy for their victims, and often defend their actions by saying that their victims provoked them in some way. Research indicates that bullies often come from homes where physical punishment is used, where the children are taught to strike back physically as a way to handle problems, and where parental involvement and warmth are frequently lacking.
Students who regularly display bullying behaviors are generally defiant or oppositional toward adults, antisocial, and apt to break school rules. In contrast to prevailing myths, bullies appear to have little anxiety and to possess strong self-esteem. There is little evidence to support the contention that they victimize others because they feel bad about themselves (Batsche & Knoff, 1994; Olweus, 1993).

Bullies acquire power over their victims in many ways: by physical size and strength, by status within the peer group, by knowing the victim's weaknesses, or by recruiting support from other children, as in group bullying. Bullying can be physical or verbal. Bullying is comprised of direct behaviors such as teasing, taunting, threatening, hitting, and stealing that are initiated by one or more students against a victim. In addition to direct attacks, bullying may also be more indirect, such as causing a student to be socially isolated through intentional exclusion. While boys typically engage in direct bullying methods, girls who bully are more apt to utilize these more subtle indirect strategies, such as spreading rumors and enforcing social isolation (Ahmad & Smith, 1994; Smith & Sharp, 1994). Whether the bullying is direct or indirect, the key component of bullying is that the physical or psychological intimidation occurs repeatedly over time to create an ongoing pattern of harassment and abuse (Batsche & Knoff, 1994; Olweus, 1993). With repeated bullying, the bully's dominance over the victim is established and the victim becomes increasingly distressed and fearful. In Canadian surveys of 4,743 children in Grades 1 to 8, 6% of children admitted bullying others "more than once or twice" in the past six weeks and 15% of children reported that they had been victimized at the same rate. Very few children (2%) reported being both bullies and
victims (bully/victims) (Pepler et al., 1997). These data are quite similar to those from other Canadian surveys (Bentley and Li, 1995) and data from Scandinavia, Ireland, and England (Olweus, 1991; Boulton and Underwood, 1992). Researchers' observations of children on playgrounds and in classrooms have shown that bullying occurs frequently: once every 7 minutes on the playground and once every 25 minutes in class (Craig and Pepler, 1997).

Three motivations have been found for bullying behaviours (Olweus, 1995). Bullies may 1) have a need for power and dominance, 2) they may be hostile toward the environment and feel satisfied when inflicting injury and suffering, and 3) they may be compelled to acquire things of value that confer prestige. Bullies tend to have little empathy for their victims and show little or no remorse about bullying (Olweus, 1987). Research has found a strong correlation between bullying other students during the school years and experiencing legal or criminal troubles as adults. Olweus (1993) found that 60% of those characterized as bullies in grades 6-9 had at least one criminal conviction by age 24. Chronic bullies seem to maintain their behaviors into adulthood, negatively influencing their ability to develop and maintain positive relationships (Oliver, Hoover, & Hazler, 1994).

Bullying usually involves more than the bully and victim and investigations have shown that 85% of bullying episodes occur in the context of a peer group (Atlas and Pepler, 1997; Craig and Pepler, 1997). Victims often fear school and consider school to be an unsafe and unhappy place. One study has shown that as many as 7% of eighth-graders in the U.S. stay home at least once a month because of bullies. The act of
being bullied tends to increase some students' isolation because their peers do not want to lose status by associating with them or because they do not want to increase the risks of being bullied themselves. Being bullied leads to depression and low self-esteem, problems that can carry into adulthood (Olweus, 1993; Batsche & Knoff, 1994).

Although 83% of students indicate that watching bullying makes them feel uncomfortable observations indicate that peers assume many roles in the bullying episode: joining in, cheering, passively watching, and occasionally intervening (Pepler et al., 1997). Peers who form the audience for bullying may be critical in starting and supporting it. Peers tend to give positive attention to the bully, rather than the victim. Their reinforcement of the bully may serve to maintain the bully's power over the victim and within the peer group. Peers who watch bullying may become excited and more likely to join in (Craig and Pepler, 1997; Salmivalli et al., 1996). Through intervening, peers may also stop and reduce bullying. In playground observations, peers intervened to stop bullying in significantly more episodes than adults did (11 percent for peer interventions versus 4 percent for adult interventions) (Craig and Pepler, 1997).

It has been found that bullies often come from homes that are neglectful, hostile and use authoritarian or punitive parenting (Olweus, 1993; 1995). Bullying may be learned by observing high levels of conflict between parents. Sibling interaction may also be a training ground for bullying (Patterson, 1986). Parents may inadvertently support bullying by accepting it as a normal part of growing up and leaving children to solve their own problems.

Schools are also important in shaping children's development. As in families,
schools must strike a balance between clear, consistent discipline and warm, supportive relationships. Schools must involve parents and community and send clear messages which prohibit bullying, supported by formal policy, procedures and follow-through with students and parents for bullying behaviours.

In conclusion, bullying is a problem that occurs in the social environment as a whole. The bullies' aggression occurs in social contexts in which teachers and parents are generally unaware of the extent of the problem and other children are either reluctant to get involved or simply do not know how to help (Charach, Pepler, & Ziegler, 1995). Given this situation, effective interventions must involve the entire school community rather than focus on the perpetrators and victims alone. Smith and Sharp (1994b) emphasize the need for a systematic approach. They recommend the following: development of whole-school bullying policies, implementation of curricular measures, improving the school ground environment, and empowering students through conflict resolution, peer counseling, and assertiveness training. Questionnaires for both adults and students increase awareness of the extent of the problem, help to justify intervention efforts, and serve as a benchmark to measure the impact of improvements in school climate once intervention components are in place. Bullying prevention program targets are students in elementary, middle, and junior high schools. All students within a school participate in most aspects of the program. Additional individual interventions are recommended for students who are identified as bullies or victims of bullying. Core components of the program should be implemented at the school level, the class level, and the individual level. Bullying in schools has long-term negative consequences. It is a
problem which needs to be monitored and addressed systematically.

We turn now, to a consideration of poverty, a variable which indirectly contributes to family and other difficulties that predispose young people toward antisocial behaviour.

**Family Poverty**

Family poverty, particularly among Canada's young families (i.e. under 25 years of age) is associated with disturbing statistics and outcomes. Statistics for the period between 1981 and 1991 show that poverty among these young families nearly doubled from 21.7 per cent to 40 percent. Lone-parent families headed by women fared the worst, with a poverty rate of 58.1 per cent. The biggest increases in poverty rates between 1981 and 1991 took place among families having no post-secondary education, with the exception of families having only 0 to 8 years of formal education (Canadian Child Care Federation, 2000).

The number of poor Canadians has grown to 5.1 million people and the overall poverty rate for Canadians is 17.4 percent. Poverty rates vary with family type, gender, age, employment, education, housing and the population size of the area of residence. Among families with children, rates vary with the number and age of the children. The 1995 poverty rate was 14.4 percent, with the total number of poor families at 187,000. For unattached individuals, the rate was 36.1 percent, with 1,399,000 individuals living in poverty. The poverty rate for female lone parents under age 65 with children under 18 was 57.2 percent. Female lone parents under age 25 had a poverty rate of 83 percent. Female lone parents who did not graduate from high school had a rate of 82.4 percent,
compared with a rate of 47.5 percent for single parent mothers who did graduate. Female lone parents with children under 7 had a poverty rate of 82.8 percent. Rising poverty rates among families mean rising poverty rates for children. The child poverty rate for 1995 was at 20.5 percent, the second highest rate since 1980. This represented over 1.4 million children living in poverty (National Crime Prevention Centre, 1998).

Poverty - General Outcomes

Socioeconomic disadvantage is known to be associated with poorer outcomes for children. Research by Bolger et al. (1995) sampled 534 pupils in grades 2 to 4 who were taking part in a larger longitudinal study over three years. Findings showed that economic hardship over time is associated with poorer adjustment, lower self-esteem, difficulties in peer relations, and greater externalizing behaviour problems. These problems were exacerbated in males. It was also found that parental behaviour, which is known to influence child outcomes, was adversely affected by economic hardship.

In a similar vein, research by Guerra et al. (1995) uncovered three factors which may increase the risk for aggression among urban children: 1) economic disadvantage, 2) stressful events, and 3) individual beliefs. The study concluded that poorer children experienced greater stressors in both life events and community violence, and were more likely to hold beliefs that considered aggression acceptable. It was also found that the combination of stressful life events and beliefs approving of aggression predicted early aggression.
The following general outcomes have been associated with poverty:

- Poor children fare worse in almost every health indicator than their better-off counterparts.
- The infant death rate is almost twice as high in the poorest neighbourhoods as in the richest.
- Poor families are at higher risk for having low birth weight babies (under 5.5 pounds or 2500 grams), a condition which increases the likelihood of death during infancy and lifelong disabilities. In 1986, the low birth weight rate was 1.4 times higher in the poorest neighbourhoods than in the richest.
- According to a 1983 Ontario child health study, the prevalence of psychiatric disorders and poor school performance in children on family benefits is double the reported rate in families not receiving family benefits.
- 1991, over 1.2 million children in Canada live in poverty. Eighteen percent of all children under age 18 are poor; 21% of all children under age 7 are poor.

(Canadian Council on Social Development, 1997).

**Sole Support Families**

Sole support families are especially vulnerable. More than half of lone-mother families report household income of less than $20,000, while less than one in twenty two-parent families report such low income levels. Poverty prevalent among lone-parent families has been associated with an increased risk of problems in children. Further, it is known that the lone-parent family structure is a risk factor on its own, over and above the
effects of income. The evidence suggests an interplay of factors affecting child well-being which include low maternal education, maternal psychiatric illness, parenting difficulties, maternal lack of social support and difficulties with family functioning (Vanier Family Institute, 1994).

- In a single-parent family headed by a woman the risk of poverty for a child aged 7 years or younger was almost eight times greater than for a child in a two-parent family.
- Almost all, (89%) children of single mothers who have never married are growing up in poverty compared with 13% for children of two-parent families.
- Thirty-seven percent of lone mothers in the labour force earn less than $10 per hour; in contrast to 26.5% of all employees who earn under $10 (Canadian Council on Social Development, 1997).

**Young Families**

- Economically, today's young families with children are worse off than were those of their parents' generation. In 1976, a single parent with one child needed to work 41 hours a week at minimum wage to bring the family up to the poverty line; in 1993, the hours increased to 73 hours per week. A March 1998 news release from the Vanier Institute of the Family details that a Canadian family needs to work 77 weeks a year to support itself. The one-third of families with the lowest incomes need to work 83.6 weeks to pay expenses (Vanier Institute, 1998).
• The average poor couple with children had income amounting to less than 70% of the poverty line. They would require $8,000 more to bring their income up to the poverty line.
• More than 400,000 poor children, however, lived in families in which the parents together had a full year of employment. Children of full-time working parents make up almost 30% of all poor children.
• The wealthiest Canadian families are receiving a larger share of each dollar. In 1991, the wealthiest 20% of the families received 40 cents of every dollar of total family income leaving 60 cents to be shared among the remaining 80% of families in Canada. The poorest 20% of the families received only 6 cents out of every dollar of total family income (Canadian Institute of Child Health, 1995).

Families who experience conflict between their work and family obligations are more likely to suffer increased stress, poorer health, impaired parenting, lost income and missed opportunities for job advancement, and reduced life satisfaction (Vanier Institute, 1998).

Poor families have decreased access to decent housing and food. Secure, affordable housing in a child-friendly neighbourhood is a known protector against the risks of gang involvement. The number of children living in unaffordable housing increased 91% from 1989-1996. The number of households in Canada paying more than 50% of their income on rent increased by 43% (from 583,710 to 833,555 households) from 1990-95. Almost twice as many low-income families as middle and upper-income
families report that their neighbourhoods are not safe for children to play outside or in local parks.

One in every 5 children in Canada is poor. While the rate of child poverty is beginning to go down, poor children are deeper in poverty. Food security is a growing problem; 322,460 children rely upon food banks. An estimated 40% of food bank users are children, although children represent only 26.5% of the total population in Canada. (Canadian Child Care Federation, 1997).

Children and Poverty

Child poverty is an indicator of the hardships experienced by an increasing number of families. Research points to the unparalleled benefits of a healthy start for all children and the decisive impact of the first years of a child's life. Adequate nutrition, responsive parenting and community-based care all function as protective factors against many childhood internalizing and externalizing disorders. As has been seen in previous chapters, the opportunity to build secure attachments with adults in a safe and nurturing environment is essential for sound development. Poverty denies many children access to the essential building blocks of a secure foundation for growth.

In November 1989, all political parties in the House of Commons voted unanimously to work to eliminate child poverty by the year 2000. Eight years later, child poverty levels have grown by 46%. The following statistics illustrate this growing problem:

• Canada has the second highest child poverty rate when compared against 17 other
industrialized nations around the world, second only to the United States.

- The number of poor children living in Canada has increased by 428,000 since 1989.
- 68% more Canadian children live in families needing social assistance today than in 1989.
- 44% more children live in families experiencing unemployment today than in 1989.
- The income of the average poor family with children in Canada is $16,700. A poor family has about $1 for every $3.50 available to the average family with children.
- A child under 18 is more likely to be poor in this country than an adult Canadian.
- Approximately 25% of poor children live in families where parents are employed full year, full time (Canadian Child Care Federation, 1997).
- A study by the Canadian Council on Social Development entitled Urban Poverty in Canada, showed that in Montreal, the child-poverty rate is just over 50 percent; in Toronto, 37 percent; in Vancouver, 36 percent; and in Calgary, 24 percent.

Three in every five poor neighbourhoods in the country can now be found in Montreal and Toronto. About one in every three children in Canadian cities is living in poverty. This means that of the 2.3 million children under the age of 15 living in urban centres, nearly 700,000 live in poverty.

Many poor children live in a family that includes two parents, one or two children under 18 years, and is led by an adult in his late 30s who has graduated from high school.
However, the highest poverty rate is among single mothers - a staggering 59 percent. Among native people living in Canada’s cities, it is a stubbornly high 56 percent and for recent immigrants, it is 52 percent (Picard, 2000).

In general, poor families live in larger communities, in rental accommodations and receive most of their income from work or work plus social assistance. While a child is more likely to be poor if he/she lives in a lone parent family, children from families with more income can easily slide into poverty because parent(s) lose a job, have to leave work or training because of a lack of child care, or do not receive support from a non-custodial parent.

Quality child care services are still not available widely enough nor are they affordable for those at the lower income levels. These are especially required for marginal families to enable parents to attend school, job training and work. It is known that children who participate in preschool development and child care programs are more likely to do better in grade 1 than those who did not attend those programs. (Canadian Council on Social Development, 1997).

**Specific Outcomes of Poverty**

Poverty can rob children of their opportunity to contribute to their full potential, and rob the economy at large of their contribution. Income and good child development are key determinants of life-long health. As individuals move up the income ladder, so does the status of the health improve.

- Poor children are less likely to be in excellent health (as reported by their parents)
• They are more than twice as likely to have low levels of vision, hearing, speech, mobility, dexterity, cognition and emotion.

• Less likely to have an annual visit to the dentist.

• Nearly 30% of poor children have changed schools three times before they were 11 years of age, in contrast to about 10% of children in upper income families. Children experiencing frequent transitions tend to have lower math scores, more grade failures and more behaviour problems than children who remain in the same school.

• One-third of poor children (4-5 years of age) display delayed vocabulary development, while less than 10% of children from high income families are behind in vocabulary development.

• Organized and unorganized sports are less likely to be part of a poor child’s activities than advantaged children. About 25% of poor children participate in organized sports in contrast to 75% of children in high income families.

• Youth (16-19 years) from low income families are less likely to be attending school or working or both. Almost 1 in 6 teens from a low income family is neither in school nor working, while only 1 in 25 from middle and high income families is idle. Youth who are not attending school or working are more likely to end up living in poverty.

• More than one-third of children with disabilities (0-14 years) live in poverty.

• 37% of children with disabilities are poor.
• 23.4% of all children (0-14 years) are poor.

(Canadian Council on Social Development, 1997).

**Poverty and Childhood Development, Health and Well Being**

A wide-ranging report by David P. Ross and Paul Roberts (2000) for the Canadian Council on Social Development presents abundant and compelling evidence that child outcomes and living conditions are affected by family income levels. The report entitled *Income and Child Well-Being: A New Perspective on the Poverty Debate*, examines the links between family income and 27 variables. The researchers used data from two surveys - the National Longitudinal Survey of Children and Youth (NLSCY) and the National Population Health Survey (NPHS). Results showed across the board that children living in families with lower incomes were at greater risk for poor living conditions and the negative outcomes which ensued from them. This study focused on two-parent families only, and used income ranges, not precise income levels; results for sole support families may well be poorer. A summary of the findings follows.

**Family Functioning and Environment**

It is known that family stability and close and supportive relationships provide the most important protective factor against poor developmental outcomes. Parents and other family members who provide secure attachments and nurturing relationships play a crucial role in healthy childhood development. The study assessed several family environment factors such as parental depression and stress, number of times the family
moved, housing and the availability of computers in the home.

Family functioning was assessed with the following questions:

- Do you avoid discussing sadness, fear or concerns with your children?
- Do family members get along?
- Are there lots of bad feelings in the family?
- Is drinking a source of tension in the family?

It has been shown that families that score well on family functioning tests are least likely to produce children with mental health disorders and aggressive, anti-social behaviours. Results from this study indicated that children in low-income families were twice as likely to be living in poorly functioning families as children in high-income families.

Parental Depression

Children in low-income families are over three times more likely to be living with a parent who exhibits frequent signs of depression than are children in high-income families. According to substantial research, children who live with depressed parents are more likely to have relational problems, emotional and conduct disorders, and substance abuse than children whose parents are not depressed.

Parents Who Experienced Trauma During Their Childhood

Nearly 16 per cent of low-income parents experienced childhood trauma, compared to less than eight per cent of high-income parents. Low-income parents are
twice as likely as those with high incomes to have experienced childhood traumas such as their parents' divorce, alcohol or drug abuse, physical abuse, or expulsion from the home for misbehaviour. The result is that children in low-income families are at a greater risk than those in high-income families of growing up with parents who themselves suffered childhood trauma. Research has shown that parents who were raised in families with multiple problems frequently have difficulty managing stress as adults. Their ability to nurture their children and maintain gainful employment is affected by the type of childhood they themselves experienced. It is known that many abusive parents were often victims of abuse during their own early years.

**Chronic Stress**

Low-income parents are four times more likely to feel chronically stressed than parents with high incomes. Parents experiencing chronic stress are far more likely to be distracted, hostile and abusive towards their children than are parents who feel happy and in control of their lives. Adolescents living with chronically stressed parents are more likely than other youth to have emotional and behavioural problems. The types of stressors reported by parents included: a family member with an alcohol or drug problem; a relative in very bad health; not having enough money to buy household essentials; and feeling that unrealistic expectations were being placed on their time and abilities. Chronic stress can also lead to depression and anxiety.
Frequent School Changes

The investigation tracked the proportion of children who changed schools at least three times before they were 11 years of age. Almost one-third of children in low-income families had changed school this frequently, compared to slightly over 10 per cent of children in high-income families. Children who frequently change schools have lower math scores, more grade failures and higher levels of behavioural problems than children who stay in the same school for several years. The authors report that changing schools frequently is often a symptom of other stressful family conditions such as divorce or separation, job loss, and the lack of affordable housing. Children living with mothers who are single parents, poor, have low levels of education, or are in poor mental health are more likely than other children to change schools frequently.

Living in Substandard Housing

Children in low-income families are more than twice as likely to live in substandard housing as children in high-income families. Nearly 35 per cent of children in low-income households live in substandard housing, compared to 15 per cent of children in high-income families. Substandard housing is often linked with problems of poor air quality, contaminants such as moulds, lead, asbestos, pesticides and other toxic chemicals. Children living in inner-city areas with large traffic volumes have higher exposure to benzene, a known carcinogen found in gasoline and automobile exhaust fumes. Substandard housing can also harm children's physical health, emotional health and family functioning, and may be unsuitable for their play and social activities and
take-home school assignments.

**Access to a Home Computer**

Less than one-third of children in low-income families have a computer in their home, compared to more than two-thirds of children in high-income homes. Familiarity with computers is now an essential skill for school work and access to the labour market.

**Community and Neighbourhoods**

Research has found that children who live in neighbourhoods that are unsafe or that lack services face greater risks of developing problem behaviours such as hyperactivity, aggression or withdrawal, regardless of the quality of their family life. Informal community networks provide a place where trust, autonomy and initiative is developed and where shared values and expectations are developed. Neighbourhoods that offer children safety, social support and access to good facilities contribute positively to their development.

The research found that more than one-quarter of children in low-income families live in neighbourhoods with at least one problem activity, compared to about one-tenth of children in high-income families. Problem neighbourhoods were defined in the NLSCY (National Longitudinal Survey of Children and Youth) as those where negative activities occur, such as drug use and drug dealing, excessive public drinking, burglaries, unrest due to ethnic or religious differences, neighbourhoods where groups of young people cause trouble, and where garbage and broken glass litter the streets. These problems can
directly affect a child's development if the child becomes involved in the destructive activities, or the child can be indirectly affected by being exposed to antisocial behaviour and vandalism.

Neighbourhood Safety and Friendliness

About 15 per cent of children in low-income families live in neighbourhoods which their parents consider to be somewhat unsafe, compared to only eight per cent or less of children in families with incomes of $50,000 or more. Children's abilities to form friendships and to develop good social skills are lessened when parents consider their neighbourhoods to be unsafe. Twenty-five percent of children in low-income families lived in neighbourhoods where their parents expressed reservations about the helpfulness and friendliness of their neighbours, compared to slightly less than 10 per cent of children in high-income families.

Four areas of children's development are considered below: health, learning, cultural and recreational participation. The basic foundation of prosocial skill and positive interpersonal interaction is formed early in life. Children in poor families are more likely to miss out in these areas and develop antisocial behaviour and negative styles of interaction. Developing good social skills and positive ways of interaction is a learned process, shaped in part by the child's temperament, and also significantly by adult caregivers and peers. Deficits in these areas commonly lead to difficulties in school, the workplace or the home, and they place the child at risk of coming into conflict with the law. The data which follow illustrate the poor outcomes to which children at the lowest
Indirect aggression

Nearly 40 per cent of children in low-income families demonstrate high levels of indirect aggression, compared to 25 to 29 per cent of children in families whose incomes are $30,000 or higher, as shown in figure 2. Indirect aggression is based on parents' responses to questions in the NLSCY (National Longitudinal Study of Children and Youth) about specific behaviours, including how frequently their child encourages others to dislike or exclude someone, and how often their child says bad things behind another child's back. in families at different income levels who demonstrate high levels of indirect aggression. These children are the troublemakers and the disturbers who instigate fights and conflicts among their peers or family members.
Figure 2: Children with High Levels of Indirect Aggression


Emotional problems

Figure 3 shows that children in low-income families were almost twice as likely to suffer from high levels of emotional-disorder anxiety as were children whose family incomes were $30,000 or greater. Emotional disorders include as sadness or depression, fear, anxiety, worrying, crying, acting distressed, having trouble enjoying life, or being high-strung. They tend to inhibit the normal progression of children to their full potential.
Figure 3: Children with High Levels of Emotional-Disorder Anxiety.

![Graph showing children with high levels of emotional-disorder anxiety by average household income.]


**ADHD - Hyperactivity and Inattention**

Twenty per cent of children in low-income families had the worst scores - that is, they ranked in the top 15 per cent in terms of hyperactivity and inattention - compared to about 12 per cent of children in high-income families with such scores. The proportion of children exhibiting these high hyperactivity scores drops steadily as family incomes rise from under $20,000 to $40,000, then the scores level off and drop again once family incomes exceed $60,000 as illustrated in figure 4. Children with ADHD (Attention Deficit Hyperactivity Disorder) are afflicted with short attention spans, restlessness and impulsivity. They are frequently unable to sit still, are easily distracted, and have
difficulty carrying through on activities or waiting their turn. These symptoms cause problems with group and individual interaction and interfere with school progress.

Figure 4: Children with High Hyperactivity Scores

![Graph showing the percentage of children with high hyperactivity scores by average household income.]


**Delinquent Behaviours**

Children in poor families were twice as likely to have high delinquency scores (i.e. within the top 10 per cent in terms of frequency of delinquent behaviours), compared to children in modest-income families. As figure 5 graphically depicts, they were nearly three times as likely to have high delinquency scores as children in high-income families. When children from low-and high-income families are juxtaposed, there is almost a 10 percentage-point difference in the likelihood of exhibiting delinquent behaviours. These behaviours include lying and cheating, destroying their own or other children's things, stealing within or outside the home, and vandalizing property.
Figure 5: Children Engaging in Frequent Delinquent Behaviours


Hanging Around with Kids in Trouble

Almost three times as many children from low-income families often or sometimes hang out with kids who are frequently in trouble, compared to children from high-income families. It is known that associating with others who frequently get into trouble can also lead to problem behaviours and negative consequences for children.
Figure 6: Children Hanging Around with Kids Who Frequently Get into Trouble


General Health

Figure 7 shows that about half of children in low-income families are reported to be in less than excellent health, compared to less than one-third of children in high-income families.
Figure 7: Children not in Excellent Health


**Functional Health**

Children in low-income families are over two and one-half times more likely to have low levels of functional health than children from high-income families. Functional health measures children's vision, hearing, speech, mobility, dexterity, cognition, emotion, and pain and discomfort. Figure 8 shows that the rate of functional health problems among children drops steadily as family incomes rise to $40,000, then the rate levels off and drops again once family incomes rise above $80,000. There is a clear association between family income and how well children learn. Vocabulary development of preschool-aged children, and math scores, reading skills, and special education requirements among primary school students all exhibit differentials for poor
children.

Figure 8: Children with Basic Health Problems Related to Daily Functioning


Vocabulary Development

Figure 9 shows that one-third (over 30 percent) of children from low-income families exhibited delayed vocabulary development compared to eight percent of children from high-income families. The rate of delayed vocabulary development declines rapidly up to family incomes of less than $30,000, then decreases more gradually until family incomes exceed $60,000. The ability to use language well is a stepping stone to success in the whole schooling process.
Figure 9: Children with Delayed Vocabulary Development


**Math Scores**

Children's problems with math appear to be proportional to income level. Those with the lowest math scores (that is, scores in the bottom third) are in families with incomes below $30,000, as illustrated in figure 10.
Figure 10: Proportion of Children with Low Math Scores


Reading for Pleasure

More than 12 per cent of children in low-income families seldom read for pleasure, compared to six per cent of children in high-income families as shown in figure 11. The rate drops for household incomes below $40,000, then rises slightly and starts dropping again once household incomes exceed $50,000. Reading for pleasure is an important foundational learning skills. Vocabulary development, spelling and the proper use of grammar are all aided by increased reading.
Need for Special Education

The likelihood of children from low-income families receiving special education is almost double that of children from middle- and high-income families, as illustrated in figure 12. Having special needs places the child at greater risk of falling behind in school, and later dropping out of school.
Figure 12: Children Receiving Special Education

![Graph showing children receiving special education by average household income.]


**Sports and Club Participation**

About three-quarters of children in low-income families rarely participate in organized sports, compared to one-quarter of children in high-income families, as shown in figure 13. Children's participation in organized sports is related strongly to their family's income. The participation rate increases across the entire income range, but particularly for those with incomes above $40,000. It is surmised that cost is the prohibitive factor for nonparticipation. Team membership teaches children important leadership skills, instills self-confidence and improves social abilities such as sharing and co-operation.
Figure 13: Children Rarely Participating in Organized Sports


Unorganized Sports Participation

Compared to organized sports, the less costly participation in unorganized sport is higher at all income levels. However, children from low-income families are still less likely to participate in unorganized sports than are children in middle-income families.

While over two-thirds of children at all income levels almost never engage in club or group programs, the tendency is more pronounced among children from low-income families: about 80 per cent rarely participate in these community programs, compared to 71 per cent of children in high-income families. Figure 14 illustrates these differences.
Figure 14: Children Rarely Participating in Unorganized Sports


Teens Neither Employed Nor in School

Figure 15 shows that about one in six teens from low-income families is neither employed nor in school, compared to only one teen in 25 from middle- and high-income families. Teens between the ages of 16 and 19 who are idle are at a much higher risk than other teens of getting into trouble with the law, developing problem behaviours such as alcohol or drug addictions, and ending up poor as adults (Ross & Roberts, 2000).
In conclusion, these graphic illustrations of multiple differences across a wide range of factors for children in lower-income families provide a valuable picture of the impact of environmental variables. Poorer children lagged below better-off children in virtually every category, showing that learning and opportunity are intricately tied to socio-economic status. Evidence of negative behaviours is highly correlated with lower levels of income as shown in figure 1 and both emotional disorder anxiety and high hyperactivity are markedly prevalent at the lower income levels. Clearly, social policy must address these inequities. When all these factors are considered in combination, poorer children suffer large setbacks. Given these findings, it is not surprising that
children in poorer families are almost twice as likely to engage in delinquent behaviour in comparison to their better-off counterparts as seen in figure 4. Youth gangs offer protection, membership and assorted other benefits to young people who have deficits in many areas of their lives.

**Literacy Issues**

Both Canadian and international research show that the factors which contribute to youth crime include low literacy, high school drop-out, unemployment and poverty. These tend to be interconnected elements since adolescents with low literacy levels are more likely to drop out of school, have difficulty finding a job and end up in a cycle of poverty that is difficult to break.

Canadian literacy statistics follow:

- About 22 percent of adult Canadians 16 years and over fall in the lowest level of literacy. They have serious difficulty dealing with printed materials and most likely identify themselves as people who have difficulties reading.

- Another 24 to 26 percent fall in the second lowest level of literacy. Such people can deal only with material that is simple and clearly laid out and material in which the tasks involved are not too complex. They read, but not well.

Literacy and crime are correlated. Many of the people who come in contact with the law have trouble reading and writing. For example, 65 percent of people entering prison for the first time cannot read or write well. Low literacy skills, which often go hand-in-hand with frustration and low self-esteem, make it harder for people who have
been convicted of offences to make choices that do not involve criminal activity.

Literacy training can help prevent crimes and also improve outcomes for those already in the criminal justice system. Literacy training can provide young people who are at risk of coming in conflict with the law with more choices and can help them take greater control over their lives. Reading ability equips young people with tools with which to make changes in their lives, and opportunities to take constructive action in relation to social, health and legal supports and services.

**Youth Gangs - General Trends**

The term “gang” in this paper refers to not to groups of youths who simply hang out together as friends, but rather to highly organized youth groups involved in criminal activities.

Research conducted for the Solicitor General Canada and the Department of Justice Canada indicates that the dynamics of gangs and their activities are changing (National Crime Prevention Centre, 1998). The report *Youth Gangs on Youth Gangs*, which was based on research into gangs in Metropolitan Toronto, indicates:

- Youth who are involved in violence and gangs are getting younger. It is not uncommon to find students in Grades 1 or 2 committing serious acts of violence.
- Gangs were once seen as the domain of boys. However, girls are now becoming more involved in gangs or group assaults and are using weapons such as guns and knives.
- The presence in schools of guns, gun replicas and other weapons is increasing.
School boards are reporting an increase in verbal and physical assaults on teachers and vandalism of teachers' cars and other property.

Students are reporting that they don't feel safe at school or while walking to school. Extortion and drug dealing are becoming a routine part of the school day in some larger Canadian cities.

Some gangs have members of only one ethnic background. Other gangs are "male only" or "female only" and some gangs are mixed in terms of membership. Many gang members belong to several gangs at the same time, in different parts of the city. Gang members can range in age from preteen to adult.

Gang Membership

Young people join gangs for a variety of reasons: to gain a sense of belonging, status, recognition; because of peer pressure, boredom, unemployment; for friendship, fun and thrills; to escape from an abusive home environment, parental rules, poverty; to find money for food, drugs, shelter and material goods. The Ministry of the Solicitor General Canada has produced a number of useful reports and studies on gangs and their criminal activities. These include: *Youth Gangs on Youth Gangs*, the *National Survey on Weapons Use in Canadian Schools*, the *Police Reference Manual on Youth Violence*, and *Youth Violence and Youth Gangs: Responding to Community Concerns*, and the *Anti-Violence Community School Project*. These reports and projects are designed to office the public and professionals insight into the scope and seriousness of youth violence and gang activity in Canada, as well as potential solutions for the problem. Researchers have
indicated a two-pronged approach to address the problem of gangs: 1) community protection from youth gangs and 2) proactive, pro-youth programs aimed at prevention, early intervention and rehabilitation. Peer mediation is one strategy many schools are using to reduce gang recruitment at schools and to provide social alternatives to joining gangs.

Community partnerships such as Calgary's Community Resource Committee on Youth Violence attempt to bring together governments, police services, schools and communities to address the problem of youth gangs. Educators and schools have also pooled their efforts with local police to organize Safe School Task Forces that advocate a zero tolerance approach to violence. It is noted in the reports above that although these initiatives are a good start, more must be done to prevent youth from joining gangs in the first place (National Crime Prevention Centre, 1998).

**Weapons Use among Gangs**

The information which follows is based on *Survey Eight*, a survey of police officers and educators sponsored by the Solicitor General Canada. The survey found that weapons are not just a problem for schools, but a serious societal problem. Information tabulated from the survey is summarized below.

- Knives of all descriptions, including illegal switchblades, are the weapons most commonly found in Canadian schools.
- Firearms are rare but present in some schools, and the use of firearm replicas is on the increase.
The use of weapons in schools crosses all socio-economic boundaries.

The intensity of school violence is increasing, even at elementary school level. The problem is greatest in urban centres with populations over 500,000.

Students carry weapons for personal protection, to gain the approval of a peer group or to intimidate or injure other students. Weapons may be considered a status symbol.

Educators are often reluctant to report the use of weapons in schools, fearing sensationalized media coverage of their school. They may also lack policy direction, support from school administrators or an effective way of coordinating with police.

Many schools have adopted "zero tolerance" policies involving suspensions or expulsions to consequence violent behaviour.

Schools are also trying to develop long-term strategies that will not only reduce the use of weapons but also ensure the continued participation of the offender in the education process.

Schools are increasingly involving students and parents in designing comprehensive policies on student conduct, violence and weapons use in schools. They are attempting to introduce programs on conflict resolution and anger management. Police and educators are trying to collaborate on prevention and early intervention strategy.

Gangs are most prevalent in the larger city centres. In Toronto the Metropolitan Police Department has named nineteen of the most dangerous gangs (Shephard, 1998).
The gangs include the New Born Crips in North York with 70 known members who are heavily armed and involved in drug crimes and street robberies. The Jane Finch Killers could have as many as 100 members while the Gilder Boys in Scarborough have at least 30 members. The Gilder Boys, the report notes, prefer machetes as their weapons of choice and are involved in extortions, car thefts and assaults. Police say 80 gangs are operating in Toronto with 2,000 youths involved at various levels. Not included in the list of the nineteen most dangerous were the Tuxedo Boys and the Silver Boys, which both went through the courts for at least four vicious machete attacks on teenagers.

The nineteen gangs designated most dangerous have been aligning themselves with the Bloods and the Crips, ruthless rival American gangs. Police identify gangs as either "scavenger," "territorial" or "organized," with organized gangs as the most dangerous. Most gangs are still at the scavenger stage which involves fluid memberships, frequent leader changes and spontaneous criminal acts.

In a Toronto Star survey of 1,019 students, only 10 percent said they would report violence from a gang member to school authorities. One in five said they have felt frightened at school. One in ten admitted they carried a weapon to school for protection. The majority of teenagers interviewed said school officials and police weren't aware of most of the gang violence since gang victims are too scared to tell for fear of retribution (Shephard 1998, 1999). Following a series on youth gangs in October 1998, Shephard (1998) reports that hundreds of e-mails and phone calls poured in to The Toronto Star describing unreported incidents of school or gang violence. More than half of students who responded to the survey said gangs were present in their schools.
Experts say that gang indicators such as graffiti, tattoos and colour-coded clothing (e.g., blue bandanas for the Crips, red bandanas for the Bloods) should be outlawed in schools. Rob LeVine is a former law professor who is now involved with gang management issues in Los Angeles (Quinn, 1999). Addressing educational and government audiences in Toronto on the subject, he called for the implementation of anti-gang programs. Toronto is, he reported, "a ripe market" for gangs and schools need to start spreading the anti-gang and anti-drug message as early as Grade 3. In addition, there must be places where kids can spend time after school and partake in meaningful activities. Further, the connection between illegal drugs and gang activity must be underscored. Inner city children, especially, need to know they have choices and are risking a great deal to cross the line toward gangs. He also noted that kids need help getting out of gangs - which most of them want.

Recommendations in a City of Toronto report contain the following recommendations:

- Identify schools or district needing a community school liaison officer, equivalent to a police constable. At the time of the report, Etobicoke had one community officer for 15 to 18 schools and Scarborough had only two officers for 160 schools.

- Police, working in partnership with school boards, should examine the need to expand police involvement in school violence prevention programs.

- Youth recreational programming, targeting high-risk youth, should be a priority for parks and recreation departments.
Provinces should provide school boards with money to ensure organizations, including parks and rec. can operate their programs in schools (Shephard, 1999).

Stephens (1999) reviewed crime prevention programs and reported that gang monitoring has proven difficult in the United States. A study found that community workers, probation officers, and police were able to reduce gang violence so long as they didn't increase gang cohesion. If they do, gang crime increases. Community-initiated mentoring and after-school programs have shown promise of diminishing crime and substance abuse. Community programs such as Big Brothers and Big Sisters have been more effective than government programs since they have expertise and experience that government efforts lack.

Police Perceptions of Youth Crime and Meaningful Consequences

The following statistics were tabulated from responses by Canadian police officers (National Crime Prevention Centre, 1998):

- In larger urban centres (with populations of 100,000 or more) police officers indicated that youth crime ranged from serious to very serious.
- Police officers in smaller centres ranked it as somewhat serious to serious.
- Property crimes (shoplifting, vandalism, and break and enters) were perceived to be the most common form of youth crime in all centres surveyed.
- Assault was perceived to be the most common form of youth violence.
- 54 percent of officers surveyed felt that youth violence had increased over the past three years and that incidents were more serious than in the past.
In assessments of the criminal justice system's response to youth, police surveys of police officers tabulated the following results:

- Current responses work well for between 75 and 80 percent of young people, deterring further criminal behaviour. Informal responses such as cautions, warnings, taking young people home to their parents and participation in diversion projects were seen to be cost-effective and to work well.

- About 15 to 20 percent of youths who come into conflict with the law are at high risk of becoming serious and repeat offenders. Police indicated wide-spread dissatisfaction with current responses to these offenders.

- Police officers supported earlier and more intensive interventions for serious and repeat offenders, to get at the root cause of their behaviour and to develop appropriate, tailored responses.

- Police officers viewed custody as appropriate in certain cases to ensure that the public is protected and that young people receive the help they need.

- Consequences involving the loss of privileges or freedom such as strictly enforced curfews were found effective, as was holding young people publicly accountable for their actions.

- A multi-agency, interdisciplinary, community-based approach was seen as an effective way of providing such a range of services. Social, educational, recreational and employment opportunities were seen as key factors in promoting safe and healthy community environments for all citizens.
Restorative Justice

Restorative justice is administered through a cooperative effort by communities and government which has offenders repair the harm caused by their crimes (National Crime Prevention Centre, 1998). It forces them take responsibility for their actions, and for the harm they have caused, by providing redress for victims. The fundamental principle of restorative justice enables offenders to make amends to the victim and the community, but also to make positive changes in their lives. The restorative justice model involves the people most directly linked to an incident - the offender, victim and members of the community - in a problem-solving approach to dealing with the crime and its impact. The community can play an important role in helping to heal victims, and in holding the offender accountable to the victim. While full reparation may be impossible, the point of reparation is to acknowledge the offence and repay the debt as much as possible. The restorative justice approach may not be appropriate for every case, especially, for example, in situations of violence. But it does appear to help deter recidivism and prepare offenders for living constructively in the community. Some restorative justice programs take place in prison and can be useful as part of a rehabilitation strategy for an offender.

The following models provide an illustration of restorative justice concepts:

Victim-offender Mediation

Victim-offender mediation model involves a face-to-face meeting between victims and offenders in the presence of a trained mediator. There is an opportunity for the parties to express their feelings, and get answers to any questions they may have. In some
mediation, the goal is to develop an agreement so that restitution, whether symbolic or real, can take place (The Church Council on Justice and Corrections, 1996).

Family Group Conferencing

Family group conferencing involves a face-to-face meeting of the victim, the offender, and supports for both parties (often family members and community workers). A trained conference coordinator leads a discussion of the crime during which the offender is faced with the full impact of his or her behaviour on the victim, on people close to the victim, and on the offender's own family and friends. The conference condemns the behaviour but does so in the context of separating the behaviour from the agreement about how the offender may best repair the harm that has been caused.

Sentencing Circles

Most commonly used in Aboriginal communities, sentencing circles have their roots in the traditions of many First Nations peoples. They take place after the guilt of the offender has been determined in the court system and provide an opportunity for the community to have input into an offender's sentence. The ultimate goal of the sentencing circle is to come to a resolution about what the offender can do to fulfill his or her obligation and to be re-integrated into the social system. It is important to note that the goal of sentencing circles is not necessarily to find an alternative to incarceration.
Formal Cautioning

Police cautioning is a youth diversion model that involves the parents of the offender. The offender and his or her parents are brought to a police station where they are formally cautioned against further offences. Warnings are kept on file and are admissible in court as a record of offences. For this reason, cautions are only used when the youth admits guilt and would likely be convicted. Police cautioning is used extensively in England and Wales, where it has proved to be useful and cost-effective. It has also helped reduce the use of custody for young offenders.

Treatment, education and employment programs should be offered in correctional centres because many offenders' needs are generally related to cognitive deficiencies, substance abuse, low literacy levels, mental illness, sexual deviancy and antisocial attitudes. Programs should include preparation for reintegration into the community with training in basic skills such problem-solving and decision-making. Other areas such as parenting skills, anger and emotion management, living without violence, and leisure education might be included. Substance Abuse Intervention consists of a range of nationally run alcohol and drug programs. Family Violence programs target previous abusers and those at risk of becoming abusive. Sex Offender Treatment Programs focus on identifying the nature and pattern of the offender's behaviour and providing the offender with self-management and external control skills that reduce the likelihood of re-offending.

Literacy Programs are offered as a basic social need and as a tool for understanding other programs. It is instructive to note that approximately 63 percent of
new offenders in federal correctional institutions test at or below a Grade 8 level in language and mathematics so that adult basic education is also required. Vocational Education Programs address problem solving, critical thinking, commitment, self-control, responsibility, punctuality and respect (National Crime Prevention Centre, 1998).

**What Works - Intervention and Prevention Strategies**

**Welfare to Work Programs**

A study by the Educational Testing Service in the U.S. (the firm that directs the Scholastic Aptitude Test [SAT] for college admissions) details what is needed to prepare welfare recipients for 21st century careers. The report entitled *Getting Down to Business: Matching Welfare Recipients' Skills to Jobs That Train*, voiced the need to expand welfare-to-work services beyond transportation and child care to include education, careful job placement and subsidized training.

In making these recommendations, the authors challenged some basic tenets of many states’ new welfare programs: that recipients should take whatever jobs are available and that time on the job – whatever the job – will lead to higher earnings. A similar concept is evident in the Ontario Works program which stipulates that welfare recipients should take whatever job is available just to get off the system. The national welfare overhaul will add one million new job seekers to the labor force by 2006, the study says. In the same period, most new jobs will require skills beyond what most welfare recipients possess. The authors estimate less than 20 percent of jobs created in the next decade will require basic skills or below and subsidized training is therefore
Educational Testing Services (ETS) compiled its results from the National Adult Survey of Literacy (NASL), an assessment of the reading, writing and math capabilities of 26,000 American adults. NASL is financed by ETS, Congress and the U.S. Department of Education. This smaller study looked at data for 1,600 female welfare recipients within that larger group. Findings revealed that:

- Thirty-two percent of recipients qualify as competent or advanced; i.e., possess the fundamental skills that, with some additional education, would enable them to move out of poverty for good. These women would also benefit most from careful career placement, the report says, because they are most eligible for on-the-job training slots.

- Thirty-seven percent, have the skills to get a job, but not the competence to move up the career ladder. As a result, they are often stuck in jobs offering zero training. The report estimates these women, with a semester of education, could move into jobs paying $20,000 to $30,000 a year.

- The remaining third require a great deal more help. ETS estimates 31 percent of the welfare caseload possess skills no better than those of the average high-school dropout. The report finds that this group may need more than two full years of schooling before realizing any appreciable improvement in job readiness or competence (Nolan, 1999).
The Canadian Story

The OECD (Organization for Economic Co-operation and Development, 1997) has stated that people who are least able to profit from new opportunities tend to have less education and less work experience, or a combination of little education, obsolete skills and specific adjustment barriers. According to the OECD, low-wage jobs should be a transitory phenomenon to an individual's career; most individuals should move up the earning ladder as they gain experience and new skills. However, OECD statistics also indicate that low-wage earners tend to remain low paid. Some even experience earnings losses, which tend to last for a long time and have poor prospects of reversal.

Toronto, Ontario houses one-third of Canada's population within a 160 km. radius. One-sixth of Canada's jobs are in Toronto, making it the country's largest employment centre. Over 47 percent of Torontonians are newcomers and by 2001, newcomers will make up more than 50 percent of the population. Toronto has a high concentration of poor people and individuals with special training needs. Thirty-six percent of Toronto's children under the age of 10 live in poverty. The social assistance caseload in Toronto is both large and diverse. The number of recipients designated as having to participate in training programs is increasing steadily, and this is especially true for single parents (Phillip, 1999).

A report determining employment readiness (Going to Work, 1998) for Toronto welfare recipients in the single parent group noted the following statistics:

• 10 percent of the respondents fell at the top end - they are the most employment ready.
• the middle 75 percent of the respondents are likely to need a range of supports before being employment ready.
• 14 percent of the respondents fell at the low end - they are not likely to be ready for employment.

Of the group surveyed an average of 54 percent of the respondents had completed high school. Approximately 12 percent had completed grade 8 or lower. Of the respondents who did not complete high school major reasons cited were pregnancy, going to work, financial difficulties and family problems.

The Province of Ontario has initiated a mandatory high school attendance program for teen mothers on welfare at a cost of $25 million for child care and transportation costs (Mallen, 1999). The program called Learning, Earning and Parenting (LEAP) will require the participation of about 1,200 girls, aged 16 to 17. Along with high school, they will have to take 35 hours of instruction in how to be better parents. The goal of LEAP is not only to help teen parents get off welfare but also to break the cycle of dependency for themselves and their children. The program will offer an education bursary of $500 for each graduate towards the post-secondary education. The money can also be put in trust for the graduate's child. It will also be offered to about 7,000 other young mothers 18 or older who would normally be asked to participate in the workfare program.
Innovative Business and Industry Partnerships

The Welfare to Work Partnership is an American initiative which assists the business community in moving people from welfare to work. It has recruited more than 10,000 business partners of all sizes, represented in all states in the US, and distributed evenly between industries. These business partners pledge to hire at least one individual from welfare programs without displacing current workers. Eighty percent of the memberships are small businesses with 250 employees or less. The business partnership is dedicated to helping people move from lives of dependence to lives of independence.

The partnership alliance involves more than 30 national trade associations from industries which include manufacturing, retail, travel, healthcare, hospitality, restaurant banking/financial, construction, and human resources. The U.S. Chamber of Commerce, businesses, communities and government leaders from across the country have united to share the challenges of welfare to work and address workforce needs of the future.

The partnership's City Link Program targets high-poverty metropolitan areas throughout the US to motivate private sector businesses to hire and retain welfare recipients by partnering them with public and community organizations. The Partnership has also prepared and distributed guidelines for businesses who want to become involved. The Blueprint for Business is a step by step guide for hiring and retaining former welfare recipients. It contains information on how to find workers, how to utilize service providers and how to access tax credits. It also offers case studies of successful welfare to work programs at companies of all sizes. Businesses across the country describe it as a
critical tool towards making welfare to work a success. A *Service Provider Guide*
contains pertinent information on local service providers that help businesses find
work-ready candidates in their area. Any organization that trains, places and helps retain
former welfare recipients can be placed in the guide. Another publication called *The
Road to Retention* details the welfare to work lessons of 16 companies including Salomon
Smith Barney, Xerox, UPS, United Airlines, and Sprint. The companies in this document
found that with the right approach, their retention rates for welfare to work hires can be
equal to or higher than retention rates for non-welfare hires. With the help of IBM, the
Partnership assembled a national *Service Provider Database* of over 2,000 service
providers so business partners can locate the nearest one in their area. All 50 states are
represented in the database (Welfare to Work Partnership, 2000).

This private sector program with its powerful participative component, as well as
accessibility of information and resource support goes a long way towards helping
individuals overcome many difficulties in their lives. Research (Berman, Kurtines,
Silverman, et al., 1996; and Hinton-Nelson, Roberts & Snyder, 1996) indicates that when
people are in highly stressful situations, the presence (even if it is just perceived presence)
of at least one helping adult can be of great importance in terms of survival and impetus
to overcome difficulties.

**Canadian Initiatives**

Public policy formulation to overcome the many problems of disadvantaged
families has been produced by The Vanier Institute for the Family (1994).
Recommendations follow:

- Improve the capacity of families and family members to fulfill their responsibilities. Examples include parenting programs, health insurance, family-supportive workplace policies such as flextime or family leave provisions, family counseling, and employee and family assistance programs.

- Provide supplemental services and support to complement the work of families. These might take the form of child care, elder care, home care, respite care, school meal programs, or developmental programs for young children from disadvantaged backgrounds.

- Assist families through particular transitional stages. Programs such as the La Leche League, marriage preparation, prenatal counseling, Parents Without Partners, family mediation, and post-divorce counseling for adults and children are examples that have proven more effective at helping family members through difficult or new stages in the family life cycle.

- Strengthen the supports to family functioning provided by neighbourhoods and communities. Recreation facilities and programs, family resource centers, community development initiatives, self-help and mutual aid groups, and advocacy initiatives are among the many ways in which communities and their members effectively help families.

Profound economic and social changes are causing employers, communities and governments at every level to review how they go about helping people. The U.S.
initiative described above (The Work to Welfare Partnership) is a model involving
entrepreneurial and government policy makers helping individual citizens. It is encouraging to see people-helping-people initiatives that are both successful and cost-effective.

In Canada, a coalition called Campaign 2000 is lobbying for a "serious national strategy" to reduce child poverty and to address problems such as low wages and insecure employment, high jobless rates, inadequate social assistance, disintegrating social services, and inadequate child care and housing. This is a non-partisan, cross-Canada coalition of over 70 national, provincial and community partners comprised of NGOs (non-government organizations) and the non-profit sector).

Campaign 2000 partners are calling for investment in Canada's children as a defining mission for the new millennium. Among its membership are the Canadian Association of School Social Workers and Attendance Counsellors, Canadian Association of Social Workers, Canadian Child Care Federation; Canadian Council for Reform Judaism, Canadian Council of Churches, Canadian Housing and Renewal Association; Canadian Institute of Child Health, Canadian Labour Congress, Canadian Mental Health Association, Canadian Psychological Association, Canadian Teachers' Federation, Catholic Health Association of Canada, and Child Care Advocacy Association of Canada. They want the commitment of the country to provide an equal opportunity from birth for every child, and a healthy start. They have suggested budget benchmarks that are needed to create conditions of well-being for all children. They recommend that the federal government:

1. Present a five-year social investment plan for Canada's children with clear
national objectives and targets recognizing that children and their families require a mix of income, service, housing and labour market initiatives to enhance their states of well-being.

2. Redirect at least 1.5% of the projected GDP (gross domestic product) to federal investments in children and families to meet the core objectives. For this benchmark to be met, federal investments in children and families should "grow" by $16 billion from current levels by 2005. This would mean an average of over $3 billion in new investments each year for the next five years.

3. Pursue a 50% reduction in overall depths and levels of child poverty by 2005, and work with the provinces for the elimination of exceptionally high poverty levels for children during the early years.

4. Establish a foundation of early childhood development services available to all parents in every community across Canada including the universal availability of quality community child care services, family resource centres and an extended public education system to include the availability of full day kindergarten for all children.

5. Invest in affordable housing required to improve the health and economic well-being of families and to ensure the availability of an adequate supply of affordable housing throughout the country.

6. Substantially improve the base child tax benefit for all low, modest, and middle income families.

7. Freeze and lower tuition fees for post-secondary studies across Canada by
investment through provinces/territories.

8. Establish with provinces/territories a national commission to develop strategies to improve the availability of good jobs with living wages for family providers and adults in poverty.

Hundreds of other groups across the country work on the issue of child and family poverty, including children's aid societies, faith groups, community agencies, health organizations, school boards and low-income support groups (Canadian Council on Social Development, 1997).

Both the U.S. private sector initiative and the Canadian public policy initiative have merit and are examples of the commitment of concerned individuals and organizations to improve the lot of children and families. The research indicates that to successfully address the problem of antisocial behaviour in young people, it is necessary to target the combinations of risk factors which predispose young people towards antisocial development. As has been seen in previous chapters, the most successful strategies address the children themselves, their peers, and the family.

Community Issues

Violent behavior is the product of the interaction between individual development and social contexts (e.g., the family, school and neighborhood). Within a concentrated area, factors such as low socioeconomic status, high population turnover, race and ethnicity, and high housing density are strong influences for the development of antisocial behaviour. These conditions lower a neighborhood's capacity for social organization and
its ability to exert informal social control. Low socioeconomic conditions do not have a simple direct effect on neighborhood violence. However, residents living in low-income neighborhoods tend to experience more difficulty establishing the formal and informal social ties within the community necessary to control crime and violence. Neighborhoods characterized predominately by single-parent households tend to have fewer social resources and networks necessary for developing and maintaining local institutions, and for helping parents acquire the social capital necessary in deterring children from violence and delinquency. A community's ability to use informal social controls appears to be the key to understanding local levels of violence and disorder.

Child rearing and controlling adolescents' behavior in socially disorganized communities are much more difficult than in better-organized communities. Participation in formal networks such as neighborhood associations, schools, and churches tends to be lower in disorganized communities. A community is powerless to influence policy decisions that affect neighborhood conditions and thus further weaken the community when there is a lack of external ties. Without strong formal and informal social ties and networks within a neighborhood, it is unlikely that strong ties to organizations and resources outside the neighborhood will develop. Research demonstrates how social disorganization affects neighborhood crime; however, the dynamic can also operate in the opposite direction. Violence in a community can change the population composition of a neighborhood, increasing social disorganization. Again, although not a simple relationship, the strongest predictors for school violence rates are local neighborhood crime rates. Research suggests that school violence is also influenced
by school policies regarding discipline, security, and dropping out, and by small group
interactions that develop within the school that encourage youths to respond violently to
routine provocations. The most effective school responses to violence are those that
develop the social resources of their students (Laub & Lauritsen, 1998). Summary format
of two universal, empirically-based programs follow. (See also Multisystemic Therapy in
Chapter Six).

**Bullying Prevention Program**

The Bullying Prevention Program (Institute for Families in Society, 1998) is a
universal intervention for the reduction and prevention of bully/victim problems. The
main arena for the program is the school, and school staff has the primary responsibility
for the introduction and implementation of the program. Program targets are students in
elementary, middle, and junior high schools. All students within a school participate in
most aspects of the program. Additional individual interventions are targeted at students
who are identified as bullies or victims of bullying. Core components of the program are
implemented at the school level, the class level, and the individual level. School-wide
components include the administration of an anonymous questionnaire to assess the
nature and prevalence of bullying at each school, a school conference day to discuss
bullying at school and plan the intervention process, formation of a Bullying Prevention
Coordinating Committee to coordinate all aspects of school's program, and increased
supervision of students at "hot spots" for bullying. Classroom components include the
establishment and enforcement of class rules against bullying, and holding regular class
meetings with students. Individual components include interventions with children identified as bullies and victims, and discussions with parents of involved students. Teachers may be assisted in these efforts by counselors and school-based mental health professionals.

The Bullying Prevention Program has been shown to result in:

- A substantial reduction in boys' and girls' reports of bullying and victimization,
- A significant reduction in students' reports of general antisocial behavior such as vandalism, fighting, theft, and truancy, and
- Significant improvements in the 'social climate' of the class, as reflected in students' reports of improved order and discipline, more positive social relationships, and a more positive attitude toward schoolwork and school.

A second successful intervention, which is utilized in four regions of the U.S. as part of the Fast Track multimodal program, is the PATHS (Promoting Alternative Thinking Strategies) school-based program (Prevention Research Centre, 1998). This is a comprehensive program for promoting emotional and social competencies and reducing aggression and behavior problems in elementary school-aged children while simultaneously enhancing the educational process in the classroom. The curriculum is designed to be used by educators and counselors in a multi-year, universal prevention model. Although primarily focused on the school and classroom settings, information and activities are also included for use with parents.

The PATHS Curriculum was developed for use in the classroom setting with all
elementary school aged-children. PATHS has been field-tested and researched with children in regular education classroom settings, as well as with a variety of special needs students (deaf, hearing-impaired, learning disabled, emotionally disturbed, mildly mentally delayed, and gifted). Ideally it should be initiated at the entrance to schooling and continue through Grade 5.

The PATHS Curriculum, taught three times per week for a minimum of 20-30 minutes per day, provides teachers with systematic, developmentally-based lessons, materials, and instructions for teaching their students emotional literacy, self-control, social competence, positive peer relations, and interpersonal problem-solving skills. A key objective of promoting these developmental skills is to prevent or reduce behavioral and emotional problems. PATHS lessons include instruction in identifying and labeling feelings, expressing feelings, assessing the intensity of feelings, managing feelings, understanding the difference between feelings and behaviors, delaying gratification, controlling impulses, reducing stress, self-talk, reading and interpreting, social cues, understanding the perspectives of others, using steps for problem-solving and decision-making, having a positive attitude toward life, self-awareness, nonverbal communication skills, and verbal communication skills. Teachers receive training in a two- to three-day workshop and in bi-weekly meetings with a curriculum consultant.

The PATHS Curriculum has been shown to improve protective factors and reduce behavioral risk factors for antisocial behaviour. Evaluations have demonstrated
significant improvements for program youth (regular education, special needs, and deaf) compared to control youth in the following areas:

- Improved self-control
- Improved understanding and recognition of emotions
- Increased ability to tolerate frustration
- Use of more effective conflict-resolution strategies
- Improved thinking and planning skills
- Decreased anxiety/depressive symptoms (teacher report of special needs students)
- Decreased conduct problems (teacher report of special needs students)
- Decreased symptoms of sadness and depression (child report - special needs) and
- Decreased report of conduct problems, including aggression (child report).

These programs have been evaluated extensively and are in wide use. One of the key aspects to preventive strategies is that they be universal programs, addressing total school populations, but with individual attention to special needs as required. In addition, parental involvement is an important component in prevention programs (Prevention Research Centre, 1998)

**Four Steps Which Work**

In terms of concerted neighbourhood/school prevention approaches, four areas are suggested as targets to help reduce both school and neighbourhood violence. These recommendations have been put forth by *Fight Crime: Invest in Kids* (1998), an organization launched in 1996 by a coalition of hundreds America’s leading police chiefs,
prosecutors, sheriffs, crime victims, and leaders of police officer organizations. Major funding for its operations is provided by a network of private foundations including the Rockefeller Family Fund, the Ford Foundation, the Packard Family Foundation, De Witt Wallace Reader's Digest Fund, and a more than a dozen others. The four program areas are based on empirical research and key studies are cited.

1. **Assure that all school-age children and teens have access to after-school, weekend and summer youth development programs to shut down the "Prime Time for Juvenile Crime".**

   In the hour after the school bell rings, juvenile offending suddenly triples and prime time for juvenile crime begins. On school days, the peak hours for such crime are from 3:00 PM to 6:00 PM. These are also the hours when kids are most likely to become victims of crime. (This is based on data reported to the FBI from eight states: Alabama, Colorado, Iowa, Idaho, North Dakota, South Dakota, South Carolina, and Utah). (Fox & Newman, 1997). They are the peak hours for teen sex, and being unsupervised after school doubles the risk that 8th-graders will smoke, drink alcohol or use drugs (Richardson et al, 1989).

   Quality youth development programs can cut crime immediately and transform this prime time for juvenile crime into a time of academic enrichment, wholesome fun and community service. They protect both kids and adults from becoming victims of crime, and cut teen pregnancy, smoking, and drug use, while they help youngsters develop the values and skills they need to become contributing citizens. For example:

   when a public housing project intensively recruited youths to join in a new after-school
program, arrests among its teen residents plummeted to one-fourth of their previous level, while those among the teens who lived in a nearby comparison project were actually going up by two-thirds (Jones & Offord, 1989).

High school freshmen boys randomly selected from welfare households to participate in the Quantum Opportunities after-school program were only one-sixth as likely to be convicted of a crime during the high school years as those not selected. Together, the boys and girls who participated in the program were 50% more likely to graduate high school on time (Taggart, 1995).

Young people who received a Big Brothers/Big Sisters mentor were half as likely to begin illegal drug use or to hit someone as applicants randomly assigned to a waiting list (Tierney, Grossman & Resch, 1995). Statistical analysis has shown that failing to provide programs like these can multiply by as much as four times a family’s risk that at-risk youth will become delinquent.

2. **Assure all babies and preschool children access to the quality educational child care programs proven to cut crime.**

Research studies, social service experience, and brain scans tell the same story: In the first few years of life, children’s intellects and emotions, and even their ability to feel concern for others — a prerequisite to “conscience” — are being permanently shaped. When parents are at work trying to make ends meet, programs providing nurturing, stimulating, educational child care for babies and toddlers can not only prepare children to succeed in school but also dramatically reduce crime (Yoshikawa 1994). For example,
in Ypsilanti, Michigan, low-income three-and four-year-olds randomly assigned to be in the High/Scope Educational Research Foundation's preschool program (see Perry Preschool Program in the Conclusion of this paper) were only one-fifth as likely to have become chronic lawbreakers at age 27, compared to similar children who did without this educational child care (Schweinhart, Barnes & Weikart, 1993).

In Syracuse, at-risk infants and toddlers enrolled in a quality child development program, with parenting support for their mothers, were only one-tenth as likely as similar children to be delinquent ten years later (Lally, Mangione, & Honig, 1988). In other words, failing to make sure that at-risk kids have access to quality child care and development programs like these can multiply by five to ten times the risk that they will grow up to lead a life of crime. When millions of struggling parents are forced to leave their children in inadequate child care, the country pays a terrible price.

3. **Help schools identify troubled and disruptive children at an early age, and provide children and their parents with the counseling and training that can help kids get back on track.**

When elementary school children display disruptive behavior, it is a warning signal that it is time to start looking for the causes of the problem, and to provide the proven social skills training, counseling, and other help for the children and their families that can lead them back to a healthier path. For example: a Montreal study showed that providing disruptive first-and second-grade boys with services like these cut in half the odds that they would later be in special classes, rated highly disruptive by a teacher or by peers, or
have been required to repeat a grade in school — all signs that the risk of future violence has been sharply reduced (Vitaro & Tremblay, 1994). Five years after randomly selected disruptive, low-achieving seventh-grade students completed a three-year program involving behavioral therapy and rewards, they were only one-third as likely to have a juvenile record as those who did not receive these services (Bry & George, 1980; Bry, 1982).

4. **Prevent child abuse and neglect by:**
   a) Providing enough well-trained child protective services staff to protect endangered children; and
   b) Offering all high-risk parents the in-home parenting-coaching programs that have been proven to cut in half both abuse and neglect and subsequent teen delinquency.

Being abused or neglected multiplies the risk that a child will grow up to be a violent teen or adult. With almost three million American children reported as abused or neglected in 1995, we need to make sure that child protective services staff have sufficient resources to identify and treat abused or neglected children. We also must act before children are hurt by expanding the programs proven to reduce cases of abuse and neglect. For example: the Prenatal and Early Infancy Project randomly assigned half of a group of at-risk mothers to receive visits by specially trained nurses who provide coaching in parenting skills and other advice and support. Rigorous studies show the program not only reduced child abuse by 80% in the first two years, but that fifteen years after the services ended, these mothers had only one-third as many arrests, and their children were only half as likely to be delinquent (Olds, 1997; 1998).
In summary, the *Fight Crime: Invest in Kids* coalition argues that when we fail to invest development dollars in children and youth, we pay far more later — not just in lives and fear, but also in greatly increased health, community and justice dollars. For example, economist Steven Barnett found that the High/Scope Foundation’s Perry Preschool study saved $150,000 per participant in crime costs alone. Even after subtracting the interest that could have been earned by investing the program’s funding in financial markets, the project produced a net savings of $7.16 — (including more than six dollars in crime savings) — for every dollar invested. Barnett estimates that the cost, including increased crime and welfare costs, of failing to provide at least two years of quality educational child care to low-income children is approximately $100,000 per child. That’s a total of about $400 billion for all poor children now under age five (Barnett, 1998).

A study by Professor Mark A. Cohen of Vanderbilt University estimates that for each high-risk youth prevented from adopting a life of crime, the country would save $1.7 million (Cohen, 1997). A recent Rand Corporation report shows that, even without counting the savings to crime victims and society, the resulting savings to government alone from effective early childhood programs exceeds by two to four times the cost of the programs (Karoly, 1998).

*Fight Crime: Invest in Kids* is a powerful coalition of law enforcement organizations and crime victims who have united in calling for universal crime-prevention investments in children. Virtually every major national law enforcement organization have adopted forceful calls for boosting critical crime prevention
investments like these. In a University poll, 86 percent of U.S. police chiefs agreed that “expanding after-school and child care programs like Head Start will greatly reduce youth crime and violence." Nine out of 10 chiefs agreed with the statement, "If America does not make greater investments in after-school and educational child care programs to help children and youth now, we will pay far more later in crime, welfare and other costs (Mastrofski & Keeter, 1999).

This chapter has reviewed influences for the development of antisocial behaviour in youth which pertain to the school and community. It has been found that multiple influences coalesce in complex configurations to produce both internalizing and externalizing disorders. These variables may operate directly or indirectly, in tandem or sequentially, to produce complex and difficult behavioural outcomes.

Following is chapter six which concludes the formal part of this research endeavour. It includes answers to the research questions, and a summary of policy issues and recommendations.
CHAPTER SIX - CONCLUSION

Introduction

This conclusion includes a brief recap of the seriousness of youth antisocial behaviour in the U.S. and Canada and a summary of empirical findings regarding the influences associated with its development. I respond to the research questions and outline several of the better intervention and preventive strategies based on empirical evaluation. Macro policy issues are briefly addressed from a systems perspective. Since antisocial behavior is systemically based both in family systems and in the larger societal systems surrounding families, interventions are also best addressed from a systems perspective.

Seriousness of Antisocial Behaviour

Antisocial behaviour is clearly an expensive problem which deserves full due process in terms of investigation, analysis and creative, strategic solutions. The data have shown that personal health costs and economic costs to society from the devastation of violence are immense. Across the U.S. the average cost of fatal and nonfatal violent injuries was $44,000 in 1992. The medical costs alone of the violence that occurred in the United States in 1992 totaled approximately $13.5 billion. In 1996, U.S. students ages 12–18 were victims of an estimated 255,000 nonfatal serious violent crime incidents (such as sexual assault, robbery, and aggravated assault) at school, and an estimated 671,000 such incidents away from school. That same year, students ages 12–18 were victims of an estimated 1.3 million nonfatal violent (serious violent crime plus simple assault) crimes at
school, and an estimated 1.4 million such crimes away from school. In 1996, the rate at which youth were victims of serious violent crimes was 33 crimes per 1,000 juveniles ages 12 to 17 years old, totaling about 740,000 such crimes victimizing juveniles. In 1996, the male youth serious violent crime victimization rate was 45 per 1,000, compared to 19 per 1,000 for females (Justice Statistics, 2000).

Canadian statistics are perhaps less dire, but nevertheless representative of a serious problem which needs to be addressed. In Canada, according to the Canadian Center for Justice Statistics, per capita assaults increased almost fivefold between 1964 and 1993, attempted murder increased nearly sevenfold, and murders doubled. Youths aged 12 to 17 represented 8 percent of the population aged 12 and over, but were charged in 23 percent of all Criminal Code incidents where an offender was identified (CCJS, 1997). Of the 117,773 youths aged 12-17 years charged with Criminal Code offences in 1996, 19 percent were charged with violent crimes. This rate is 9 percent higher than five years ago and 121 percent higher than in 1986 (CCJS, 1996). In Canada in 1995-96, 40 percent of the cases referred to the youth court involved reoffenders. As young offenders moved toward persistent re-offending, the number of charges per case increased (CCJS, 1996 b). During this same period, juveniles were twice as likely as adults to be victims of serious violent crime and three times as likely to be victims of simple assault. Overall, juveniles were at greater risk of violent victimizations in 1995 and 1996 than even the most victimized age group of adults. Younger juveniles ages 12–14 were more likely than older juveniles to be victims of simple assault (73 per 1,000 vs. 56 per 1,000) (CCJS, 1997).
Statistics Canada (1994-95) estimates that crime in Canada costs the justice system alone $10 billion a year. When personal and physical costs—such as costs associated with the pain and suffering of victims or lost productivity—are included, that amount rises to $46 billion. This figure does not include the cost of white collar crime, tax evasion or stock market manipulation. Also not included are costs for boards of education that must engage special educational services, security personnel, social workers, psychologists and administrative staff to deal with behavioural difficulties and their outcomes. Further costs are incurred when such children fail to attain adequate educational and skill development which often results in lifelong dependence on social assistance, as well as additional health and hospitalization costs due to greater morbidity.

Response to the Research Questions

What are the Key Variables Which Emerge as Influences in the Development of Antisocial Behaviour in Youth?

Decades of research have shown that antisocial behaviour in youths is multidetermined. Pertinent correlates include the following.

- *Family Relations*: adverse family situations and poor parenting (low nurturance and warmth, ineffective or harsh discipline/abuse); parental problems such as involvement with the criminal justice system, substance abuse and/or psychiatric conditions. When violence is routinely used in the family as a means of solving conflict, children are predisposed to aggression. That violence in the family is a serious problem is evident from the fact that at least three children die every day in
the U.S. from abuse and neglect. Between 1985 and 1995, the rate of child fatalities due to abuse and neglect increased 39 percent. In 1995, 1,215 children died of abuse and neglect: 85 percent were under the age of 5 and 45 percent never celebrated their first birthday (National Committee to Prevent Child Abuse, 1996). Family disorganization, lack of family cohesion, and poor parental supervision contribute to the development of aggression in children. General absence of support, rules, and positive expectations are known to contribute negatively to healthy child development and positively to aggression.

- **Individual Factors:** cognitive, language, and motor deficits; co-existing attention deficit hyperactivity disorder (ADHD), marked early aggressiveness, reading difficulties, poor performance on neuropsychological tests, genetic factors, difficult temperament, low self-esteem, lack of adequate life skills, lack of self-control, low verbal IQ, immature moral reasoning, cognitive bias to attribute hostile intentions to others, favorable attitudes toward antisocial behaviour, and poor social skills.

- **Peer Relations:** high involvement with deviant peers (gang membership), low involvement with prosocial peers are linked with antisocial behaviour. In associations between aggressive and non-aggressive children, it is the non-aggressive child who becomes more aggressive rather than vice-versa. Exposure to violence, either as a witness or as a victim is known to contribute to aggression.
• **School Performance**: Low achievement, poor academic performance, school dropout, low family support of education, low commitment to education, poor academic quality and weak structure of school. Youth who experience failure at an early age are more likely to become distracted and withdrawn from the academic environment. Schools which are unsafe, uncertain, dirty and without consistent rules contribute to problems with aggression and violence. This contrasts with schools that are safe, well-managed and have clear policies and rules regarding behaviour and general expectations. Poor school performance and a weak bond to school will increase the probability of misbehaviour in school which, in turn, provokes disciplinary reactions. This escalates through elementary and secondary school, leading to a higher level of adolescent delinquency and, eventually, to adult offending (LeBlanc, Vallières & MacDuff, 1993).

• **Neighbourhood Variables**: socio-economic disadvantage, high mobility, high disorganization, a criminal subculture (youth gangs, drug dealing, prostitution), low organizational participation among residents, low social support available from church, neighbors, and the like. Two major models explain why boys enter gangs. One model suggests that boys who already engage in antisocial behaviour enter gangs to join with people similar to themselves. The other model suggests that boys join gangs for such reasons as self-esteem, power, and protection. According to the latter model, it is through membership in the gang that youths are
encouraged to engage in antisocial behaviour. Both theories have some merit in explaining why youth join gangs and how antisocial behaviour may be escalated through gang membership. Prior conduct problems, association with deviant peers, low family income, and low levels of parental supervision were found to be predictors of gang entry (Lahey, Gordon, Loeber et al., 1999). In early adolescence, friendships with delinquent peers may lead to gang membership, but in general, gang entry may reflect a tendency for antisocial boys to associate with one another.

Henggeler (1991, 245) has summarized one potential pathway to antisocial behaviour. He notes that “sophisticated causal modelling studies in the fields of delinquency and substance abuse have been clear and consistent: a) association with deviant peers is almost always a powerful predictor of antisocial behaviour, b) family relations either predicts antisocial behaviour directly or indirectly through predicting association with deviant peers, c) school difficulties predict association with deviant peers, and d) neighbourhood and community support characteristics add unique variance or have an indirect role in predicting antisocial behaviour.”

It is known that early onset of antisocial behaviour has significantly poorer outcomes than later onset. Research has suggested that children as young as four or five years with troublesome externalizing behaviour have a 50 percent or greater chance of developing consistent behaviour problems (Bennett, Brown, Lipman, et al, 1999). Compared to children who show early onset of antisocial and aggressive characteristics,
boys with later onset tend to exhibit less violence, more attachment to their families, greater need for intimate relationship. The later-onset group may show some desirable leadership qualities, and usually have fewer pathological characteristics.

The early onset and late onset groups also exhibit differing personality profiles. Those with early onset tend to describe themselves as more alienated (feelings of being victimized and mistreated), less sociable (not needing or liking people), inept and reserved. Compared to others, both early onset and late onset groups describe themselves as more unconventional (in terms of moral values), aggressive, impulsive, vulnerable and prone to overreact.

Since early onset of aggression and noncompliance produces higher risk for chronic antisocial behaviour, efforts should be directed to childhood antisocial behaviour. If children continue with their antisocial behaviour in adolescence, and many of them do, then the likelihood of their becoming adult criminals is strong. Identifying young children with antisocial behaviour and working with them and their families are the best strategies in combating youth violence. The results of early interventions are very encouraging and the costs are minimal. On the other hand, the results of interventions when these children have become adolescents are not very encouraging and the costs are high. The above message should be conveyed to all parents, family physicians, pediatricians, teachers, day care workers, and to all who come in contact with young children. Childhood aggressive and antisocial behaviour must never be ignored (Moffitt, Caspit and Dickson, 1996; Shamsie, Nicholl & Madsen, 2000).
Stressors in High-Risk Families

The literature showed that educating parents and providing support for high risk families is a step in the right direction. Well functioning families provide the grounding for healthy childhood development. In these changing times, families are stressed in numerous ways, but most often in terms of time and financial resources. Beyond this, however, high-risk families face additional stressors. High-risk family factors commonly found in delinquency literature include:

- Neglect (low levels of parental involvement and supervision of child)
- Conflict (resulting from inadequate and/or inconsistent discipline style, and parent-child rejection)
- Parental characteristics (alcoholism, criminality, violence, lack of maturity)
- Disruption (unhealthy marital relations, parental absence, poor parental physical and emotional health, especially maternal psychiatric illness)
- Socioeconomic disadvantage, low maternal educational status and maternal lack of social support (Modlin, 1995; Vanier Institute of the Family, 1999).

Fatherless Families

Other commentators have highlighted the primary importance of what might be termed a metafactor in the realm of family systems. Sociologist David Blankenhorn in Fatherless America (1995, 73) wrote, “Despite the difficulty of proving causation in the social sciences, the weight of evidence increasingly supports the conclusion that
fatherlessness is a primary generator of violence among young men.” Galston & Kamarch, former U.S. government domestic-policy advisers, concur. Commenting on the relationship between crime and one-parent families, they argue that the relationship is so strong that controlling for family configuration erases the relationship between race and crime and between low income and crime. They note also that this conclusion shows up repeatedly in the literature (Hoff Sommers, 2000).

Although in the U.S. the poverty rate among blacks, for example, in general is higher than among whites in general, the poverty rate among families headed by black married couples has for years been consistently lower than the poverty rate among white, female-headed families, the latter living in poverty about twice as often as black intact families (U.S. Bureau of the Census, 1992). Further, although blacks in general have about twice the infant mortality rate of whites in general, black married women with only a high school education have lower infant mortality rates than white unwed mothers with a college education (Eberstadt, 1991).

It has been evident for some time that the traditional family system is undergoing rather profound change and these changes are impacting on children. Nearly one-third of all American children were born outside of marriage between 1960 and 1999. The divorce rate has increased between two and three times (Popenoe, 1999). In 1960, the chances of a marriage ending in divorce were below 20 per cent; today they are between 40 and 60 per cent. Close to 40 per cent of children in the U.S. are living apart from their biological fathers, up from 17 per cent in 1960. Children do not appear to be faring well under these changes. There is a sixfold increase in juvenile violent crime since 1960 and a fivefold
jump in child abuse and neglect since 1976. Depression, teen suicides and female eating disorders are on the rise. The percentage of children who are poor has also increased, due in large part to the retreat of the fathers from the lives of their children.

*Single-Parent Families*

Single parent families (especially those headed by women) have increased risk for assorted difficulties, but especially for poverty. A recent article in *The Economist* (2000, 27) details that:

Most striking ... has been the concentration of families headed by single women. Such families are the largest and fastest-growing segment of the poor, making up over half of all poor families in 1998, compared to 21 percent in 1960. The poverty rate is almost six times higher for one-parent families headed by women than it is for those with two parents. The breakdown of the traditional two-parent family does much to account for America's current poverty. Just over 30 percent of American children now live in single-parent families, and these account for almost two-thirds of the children in poverty. According to Isabel Sawhill, a poverty expert at the Brookings Institution, the child poverty rate would have remained virtually unchanged since 1979 if family structure had stayed the same. Instead, the rise of single-parent families brought with it a 25 percent rise in child poverty.

In 1970, single mothers accounted for 24 percent of those in the bottom income decile but this figure rose to 40 percent in 1995. Those at the very bottom had income under $15,158 in 1995. This group is largely single mothers. In 1970 single mothers
headed just over 7 percent of all families; by 1995, the figure topped 12 percent (Little, 1999). When poverty (which has been found to be related to higher stress levels and family dysfunction, lower academic standing for children, frequent residential moves, and poorer neighbourhoods) is added to the equation of single and/or teenage parenting (with potential parenting skills deficits), the likelihood of antisocial behaviour problems is correspondingly increased.

The rate of single parenthood has increased steadily in both the U.S. and Canada. In Canada, changes in family structure have resulted in almost one in three children being born outside traditional marriage. One in six children are living with a single parent, almost always the mother. Close to one in ten Canadian children aged 11 or younger are living in step-families, often with siblings to whom they are not related. Twice as many children (20 percent versus 10 percent) were born into common-law families in 1993-94 as was the case 10 years earlier (Gadd, 1998). In 2000, lone-parent families are up 138 percent since 1971 (Carey, 2000). More than half of lone-mother families report household income of less than $20,000, while less than one in 20 two-parent families report such low income levels. While the poverty prevalent among lone-parent families has been associated with an increased risk of problems in children, researchers have also pinpointed the lone-parent family structure as a risk factor on its own, over and above the effects of income.

In conjunction with single parenting, teen pregnancy has increased dramatically. In the U.S. the rate in 1994 was 116 per 1000 teens. The rate of teen pregnancy in Canada has risen by more than 20 percent since 1988; in 1994 there were 49.5 pregnancies per
thousand Canadians aged 15 to 19. Having a child before completing an education increases the likelihood of being on state care or welfare for a considerable length of time. Possible reasons cited for this trend include cuts in social services, cuts in sex education and rising poverty. In some cases teens may choose pregnancy as a way of qualifying for welfare and leaving dysfunctional homes and families. Rapid downturns in family income and job security have created additional stress and tension that kids have sought to escape from. To young women from very troubled families, teen parenting and welfare may appear to be an attractive alternative. These young women are often unaware of the actual long term challenges associated with single teen parenting and many are trying this “escape route.” (Johnson, 1996).

The U.S. Bureau of the Census reports that in 1960 children living with their mothers but not their fathers numbered 5.1 million. By 1996 the number was more than 16 million. Hoff Sommers (2000, 73) asserts that “As the phenomenon of fatherlessness has increased, so has violence.” She quotes Senator Daniel Patrick Moynihan who wrote in a 1965 study for the U.S. Department of Labor: “A community that allows a large number of young men to grow up in broken families, dominated by women, never acquiring any stable relationship to male authority, never acquiring any rational expectations about the future - that community asks for and gets chaos.”

The relationship between family troubles and internalizing and externalizing behavior disorders is established as early as two to four years old. The relationship is especially strong for aggression and conduct-type behavioral problems, but also for anxiety and depression. One study showed that for boys with multiple family stressors
(i.e., depressed, dissatisfied mothers; marital discord and parenting clashes; criminal and aggressive behavior at home and in the neighbourhood; and low income and overcrowding) the rate of behavior problems was 15 times higher than for boys with stressors in none of the areas. These children generally required the attention of a child and adolescent psychiatrist.

Problems are often evident in the earliest years; family stressors in infancy lead to behavior problems in preschool, which become clinical behavior disorders by the time the child reaches school age. Physicians and other professionals who work with young children are advised to explore factors in the child's life--inside and outside the family--that affect the adjustment of the child, parents, or both. This is particularly important because the same stressors that predispose to behavior problems, if not corrected, may also keep treatment from being effective. It is suggested, therefore, that psychological evaluations of young children need to be ecologically based, including intra- and extrafamilial factors that appear to cumulatively increase risk of behaviour problems. (Shaw, Winslow et al., 1998)

Consistent physical aggression by boys in elementary school predicts later antisocial acts, delinquency, and violent offending in the community. Marked aggressive tendencies which are evident in kindergarten will, for the most part, remain intact unless intervention takes place. Not only does early aggression predict later aggression, it also serves as a risk predictor for a variety of other negative outcomes including later delinquency, conduct disorder, school maladjustment and substance abuse (Olweus, 1993). Boys who fight persistently through the first part of elementary school, are highly likely to
continue to fight in later grades. Other aggressors emerge during the later elementary years and beyond, yet the majority of boys who fight appear already to be aggressive by age eight or nine.

The theoretical model that best explains the transmission and consistency of aggression across settings (such as the home and school) is the person-environment model. This model integrates children's family functioning and peer relationships outside the home. Early onset of problem behaviours and children's position on the developmental pathway are important markers that can help identify those youth at highest risk for violence. Interventions should address both the individual characteristics of children and the social contingencies that affect their aggressive responses. Three factors delineate boys most at risk of becoming violent delinquents as teenagers. Boys who are a) overactive, b) rarely anxious or worried and c) who seldom move to help or comfort another person are most likely to later behave in violent, antisocial ways (Tremblay, 1994).

As we have seen, social contingencies in the family which negatively affect children's developmental processes include parents' inadequate or harsh child rearing practices, disruptions in family functioning, antisocial parents, and aggressive interactions between siblings. Research suggests that violence in schools derives largely from factors such as those which are external to schools, but which may be precipitated or aggravated by the school environment. The weight of a large body of evidence is that children's aggression in the home influences their level of aggression in the school setting. Interventions in the home, therefore, appear to be more beneficial than school interventions, although both are recommended (Laub & Lauritsen, 1998).
I turn now to a consideration of the unique circumstances and correlates of serious violent juvenile offenders.

**Serious Violent Juvenile (SVJ) Offenders**

With serious violent juvenile (SVJ) offenders there is almost always evidence of early child aggression and the majority of the SVJ offenders of any race tend to be multiple-problem youth. They often have school problems (truancy, suspension, and dropout), substance use problems, and mental health problems. The strongest predictors of SVJ offending evident between the ages of 12 and 14 are as follows: lack of strong social ties, antisocial peers, nonserious delinquent acts, poor school attitude and performance, and psychological conditions such as impulsivity. The risk of juveniles engaging in SVJ offending is greatly enhanced when they join a gang or become drug dealers. The higher the number of risk factors, the greater the likelihood of a youth engaging in SVJ offending. SVJ offenders to whom the strongest predictor variables apply are 5-20 times more likely to engage in subsequent SVJ offending than those without such predictor variables. Chronic offenders account for more than half of all serious crime committed by juveniles and the vast majority of chronic offenders are SVJ offenders (Loeber and Farrington, 1998).

From childhood to adolescence SVJ offenders tend to develop behaviour problems in several areas: aggression, dishonesty, property offences, oppositional defiance, and conflict with authority figures. Longitudinal studies have illustrated a transmission pattern of antisocial behaviour and aggression which exhibits remarkable stability through three
generations (e.g., Hausmann et al, 1984). See also Appendix A, *Jack's Troubled Career: The Costs to Society of a Young Person in Trouble* for a snapshot of the repetition process.

In summary, as detailed above, influence categories related to development of antisocial behaviour in youth include: family relations, individual factors, peer relations, school performance, neighbourhood variables, stressors in high-risk families, fatherless families, and single-parent families. That families are highlighted so many times is an indication of the powerful role played by loving, nurturing environments in the creation of healthy, prosocial children. Conversely, adverse family situations and poor parenting play a major role in the development of antisocial youth. Families are the microcosm of society; our communal life broadens out to schools and neighbourhoods from this essential starting point.

Reduction of antisocial behaviour (i.e., crime and victimization) must focus on decreasing violence in families and in society. Research has clearly indicated that levels of aggressive behaviour, without intervention, tend to stay the same over time (Henggeller, 1989). This is supported by findings that indicate 70 to 90 percent of male adults who committed violent offences were highly aggressive as children (Farrington, 1991). Intervening to counteract developmental factors that favour violence can reduce the risk that children will become involved in violence as aggressors, victims, or bystanders who condone violence (American Psychological Association, 1993). In this question we have dealt largely with the etiology of antisocial behaviour development. Next, I review how these variables operate in concert.
How do the variables in each of the pathways (genetic/neurological factors, family systems factors, social contingencies) function?

Antisocial behaviour is influenced by combinations of factors from each of these categories as previously discussed. Among the most powerful individual influences for serious violent juvenile offenders, however, are genetic, neurological factors. These factors are linked with the most severe manifestations of antisocial behaviour; i.e., at an early age, cruelty to people and animals and later, violence and violation at a consistent and intense level. Such behaviour is called psychopathy and it is thought to be due to an inherited structural abnormality or a chemical imbalance of the brain. Psychopathy is characterized by a constellation of interpersonal, affective and behavioural traits that are strongly related to risk for violence and recidivism. Moir and Jessel (1995, 163) elucidate: “The psychopath baffles us, because his is a mental disease which wears the mask of sanity. The severe psychopath may seem to enjoy robust mental health. Psychopaths are not disoriented or out of touch with reality ...they are rational and aware of what they are doing, and the law accepts that their behaviour is the result of choice freely made. ...The psychopath intellectually knows that what he has done is wrong; it’s just that he does not care about it.”

The psychopath is distinguished from the general mass of aggressive and antisocial individuals via the following characteristics: a lack of guilt, remorse, or loyalty; callousness and lack of empathy; an incapacity to form deep or meaningful interpersonal relationships; a failure to learn from experience or punishment; profound egocentricity and superficial charm. The records of psychopathic personalities show persistent antisocial
and criminal behaviour, and a predisposition to aggression particularly under the influence of alcohol. Psychopaths also exhibit pathological lying, deceit and manipulation, and a failure to accept responsibility for actions. They tend to have a high need for stimulation/excitement and a proneness to boredom, poor behavioural controls and early behaviour problems, impulsiveness and irresponsibility as well as a parasitic lifestyle and lack of realistic, long-term goals (Moir & Jessel, 1995).

Few women fit the category (females with the disorder are three to four times rarer than the male). But when they do, they are likely to show the same indifference to the suffering of others and to exhibit even stronger antisocial attitudes, although they are less likely to resort to actual violence. Case histories have suggested that female psychopaths seek out their male equivalents to commit crimes. They appear also to be implicated in severe neglect (and murder) of their children.

The concept of psychopathy is important because it describes the most severe and costly form of antisocial behaviour. Recent investigations via MRI (multiple resonance imaging) have associated psychopathy with structural abnormalities in the brain: reduced prefrontal gray matter volume and reduced autonomic activity (Raine, 2000). If this is so, then ethical considerations must be brought to bear on how these individuals are dealt with in the criminal justice system. Most would agree that society needs to be protected from the Paul Bernardo's and Clifford Olsen's of this world, and the California Three-Strikes Law is one example of this protection. Consistent violent offenders are put away for life after three serious offences, on the grounds that rehabilitation efforts are not effective. At the same time, if neurophysiology acts as a compelling force in the lives of psychopaths,
surely as a consciously evolving civilized society, we have an obligation to further investigate these brain abnormalities to find solutions.

It is known that in the brains of aggressive psychopaths, the limbic system (the area that creates feelings and hence the ability to comprehend guilt, shame and remorse) is disconnected from the more “thoughtful” frontal lobes. In other words, the thinking part of the brain is not being informed by the emotional part, so it lacks the necessary moral education. This research from the realm of the physical sciences has produced PET (positron emission tomography) scans with abnormalities in the hypothalamus of the nonviolent pedophile. In contrast, the violent pedophile shows the same abnormalities as well, but also has abnormalities in the frontal lobes and the limbic system. Relative risk statistics on individuals from one study showed that psychopaths were approximately three times more likely to recidivate, or four times more likely to violently recidivate than were nonpsychopaths involved with the justice system (Hemphill, Hare & Wong, 1998).

Concerning additional biochemical bases for antisocial behaviour, it is noted that 89 to 95 percent of all crime is committed by men. The literature suggests this may be due to the fact that the male brain has a lower level of the neurotransmitter responsible for controlling impulsive behaviour - serotonin. In addition, males have higher levels of testosterone, which is associated with greater readiness to engage in aggressive behaviour.

Additional elements related to neurological factors include low birth weight which is further associated with the following: low socioeconomic status, having a mother who is unmarried, a teenager, poorly educated, malnourished, receiving poor prenatal care and a heavy smoker. Poor nutrition, low birth-weight, poor attachment to a caregiver and too
much stress can cause significant neurological damage leading to behavioural disorders that include learning disabilities and mental retardation, as well as emotional problems. Consumption of alcohol during pregnancy may also cause long-term neurological damage in children that can result in hyperactive behaviour, learning disabilities and an inability to interact normally in a social milieu (Standing Committee on Health and Welfare, 1992).

The central nervous system matures during the early childhood years. Interference with brain development may cause neurological damage which can lead to learning disabilities and extreme conduct disorder.

In summing up this section, evidence shows that neurophysiological abnormalities are associated with the most severe cases of antisocial behaviour, (i.e., psychopathy). Adoption studies, as noted in chapter three, have provided startling evidence of a biological connection with antisocial behaviour. Pharmacology and other avenues of treatment have shown limited promise, but it is clear that solutions are still required for the dysfunctions, the chemical and neurological failures of the damaged minds evidenced in psychopathic individuals.

**Mosaic 2000**

It is interesting--from a preventive perspective--to note that a psychological tool, finely honed by the FBI (Federal Bureau of Investigation) is being field-tested in schools in the U.S. and Canada. The Mosaic Profiling System has been widely used by U.S. government agencies to target potentially dangerous individuals. Mosaic 2000, as the school version is called, is a computer system that employs database comparisons.
(utilizing the above characteristics of psychopathy) to take some of the guesswork out of identifying "troublemakers." It contains questions crafted by 200 experts in law enforcement, psychiatry and other areas about student behaviour based on case histories of people who have turned violent. Questions address a variety of concerns--from the availability of guns to a student's abuse of dogs and cats. The questions allow a range of answers. Each evaluation is rated on a scale of one to 10, with 10 representing cases most similar to those that have escalated, and thus most in need of intervention. The programs are intended to help officials distinguish a real threat from "innocuous outbursts." They stress that the system is not a "big brother" approach. The official position is that information gathered for each evaluation is held at the school only, and is never communicated over the Internet. Gavin de Becker Inc. of California, co-developer of the program, reports that there is no central combining of cases. The company's web site states that every principal "already has a method for evaluating students who make threats--it's just that most of those methods are unorganized, idiosyncratic, and cannot be expressed or documented." Mosaic-2000 is intended to bring uniformity, structure, expert opinion, and validity to high-stakes evaluations (Gavin de Becker, 1999, National School Boards Association, 1999). Andrew Vita, associate director for field operations of the Bureau of Alcohol, Tobacco, and Firearms--also a developer of the program--argues that school officials need Mosaic and other tools to deal with an ever more complex threat in which relatively good students with access to guns may erupt because they feel victimized by bullies or by the school system.

Three New Brunswick schools and several in downtown Toronto are providing
data for the research, which is partly financed by the National Crime Prevention Centre in Canada. The FBI is also putting together a handbook that will list characteristics most often associated with violent kids (Morris, 1999). A fruitful topic for further research might be the case management process for the elementary school students identified by the system as high-risk youth.

The next variable reviewed with a focus on its complex functioning process is family systems.

**Family Systems**

The following areas related to family systems will be touched on: problems such as abuse and aggression, witnessing violence in person or in the media, disruptive family life, school difficulties and the effects of ADHD. I begin with ADHD, a disorder which affects not only the child who suffers with assorted symptoms, but the entire family as well.

*Attention Deficit Hyperactive Disorder*

ADHD (Attention Deficit Hyperactive Disorder) is related to a biological predisposition which may be further modulated by environmental factors. For instance, in their family interaction patterns, ADHD children may, on account of their neurological deficits, promote dysfunctional behavioural interactions that exacerbate their predisposition. Research has suggested that ADHD may involve a bi-hemispheric
dysfunction, characterized by reduced dopamine and excessive noradrenergic functioning (Malone, Kershner, & Swanson, 1994)

Children with ADHD—about five percent of the population—are impulsive, easily frustrated and have trouble sitting still, paying attention and completing tasks. Of itself, ADHD does not directly cause antisocial behaviour, but it is linked in the literature with learning and language problems, aggression, disruptive behaviour, and depression or anxiety. ADHD makes children vulnerable to failure in two important arenas of developmental mastery—school performance and peer relations; failures in these areas then predispose children to the development of antisocial behaviour. School performance problems result from ADHD symptoms: poor organization, impulsivity, hyperactivity, inattention and distractibility. ADHD frequently coexists with other learning, behavioural, emotional, and developmental problems, further complicating identification and treatment. When ADHD is not diagnosed, its associated behaviours may lead to interpersonal difficulties with parents, teachers and peers, as well as school failure. Rejection, loneliness and low self-esteem may then lead the child to seek acceptance from “out groups” such as antisocial peers. When parents are stressed out and ignorant of the symptoms of ADHD and how to handle them, they may respond in a harsh or punitive fashion, thus setting the stage for oppositional defiance in the child. Parents must be involved in the treatment of ADHD so that a “goodness of fit” can be created between the hyperactive child and the family. When parents are informed about the parameters of the disorder, and understand that their child is not trying to be “bad” or “difficult,” then their love and support can go a long way towards offsetting potential problems. These children
also need understanding teachers and extra support in the school system.

Given the current controversy with alleged over-prescription of Ritalin, (DeGrandpre, 1999; Maté, 1999) careful diagnosis and professional help are essential. The American Pediatric Association recommends the DSM-IV criteria (see chapter three) which specify that symptoms must be present in two or more of a child's settings - school, work, home - and that the symptoms must adversely affect the child's social or academic functioning for at least six months.

Also related to antisocial behaviour are beliefs which legitimize aggressive behaviour and the lack of social and informative skills, both of which are formed initially through family relationships. Antisocial behaviour is associated with the tendency to attribute hostile intentions to others and the lack of effective social problem-solving skills (Asher & Coie, 1990; Dodge, 1985; Kazdin et al, 1987.)

*Television Violence*

Concerning the impact of violence on television coming into the homes of families everywhere in the world, it is noted that the average youngster in the United States aged 2-5 years is watching about 27 hours of television per week or almost four hours a day. A typical child will watch 8,000 murders and 100,000 acts of violence on television before completing elementary school. Young violent offenders report that, as children, they were watching an average of 6 hours of television per day. In two surveys of young male felons imprisoned for committing violent crimes like homicide, rape and assaults, 22 percent to 34 percent reported having consciously imitated crime techniques learned from television
programs. Those with a more savage history of violence were more likely to report such imitation. During one day of television viewing in 1992, the Center for Media and Public Affairs reported that there were 1,846 scenes containing violent episodes with serious assaults occurring in 21 percent of the scenes. Gun play was featured in 20 percent of the scenes followed by isolated punches and pushing which each appeared in 15 percent of the scenes. Menacing threats with weapons were made in 12 percent of the scenes observed.

More than 3,000 studies worldwide in the last 40 years have looked at the impact of television violence, and the consensus is that there is a 3 to 15 percent likelihood of increased violent behaviour among those viewing excessive television violence. Damage caused by television violence goes beyond prompting increased aggression among some viewers. It also increases fearfulness among young viewers and tends to desensitize viewers to violent behavior (Illinois Center for Violence Prevention, 1998).

Dysfunctional Family Systems:

Dysfunctional family systems are characterized by poor communication, low cohesion, poor parent-child relations, coercive parenting practices, punitive and inconsistent discipline, violence, low supervision. Single-parent families, as we have seen, are at greater risk, as are families with high levels of adversity (marital problems, maternal depression). These are powerful elements which exert strong influences for the development of antisocial behaviour. A child in these circumstances is at risk to a greater or lesser degree depending on the severity of the difficulties in the family system. The family systems pathway is most influential in children's early years when the self-concept--
including self-esteem and locus of control-- is developing and the child is totally dependent on caregivers for basic needs and nurturing. Multiple family system stressors negatively affect children's adjustment and are correlated with aggression and conduct-type behavioural problems (Shaw, Winslow, et al., 1998).

Profound, consistent problems have been demonstrated in families where the mother was a heavy drinker, even if the marriage was intact. Children in such families are more emotional, more anxious, more hyperactive and more aggressive. The older children in such families commit more property crimes than the children of mothers who drink less. Girls of mothers who drink heavily are more prone to verbal aggression, while boys are more apt to be physically aggressive. Having a father around in the family tends to lessen the tendency for boys to be so aggressive, but teachers rated children in such families higher on scales for conduct disorder, aggression and hyperactivity. Children of heavy-drinking mothers are a risk group, even if the mother did not drink during pregnancy. These findings hold even when such factors as the mother's depression, marital status and socio-economic status are taken into account (Mitchell, 1999).

Family Violence

Family violence is another key indicator for the development of antisocial behaviour. Beliefs which legitimize aggressive behaviour and the lack of social and informative skills, both of which are formed initially through family relationships, are also associated in the literature with antisocial behaviour. Research has found that the tendency to attribute hostile intentions to others and the lack of effective social problem-

Violence in the family of origin is inextricably linked with later violence and aggression in males especially. A retroactive look into the family lives of about 1000 Canadian federal male offenders who have been convicted and sentenced to two or more years of incarceration revealed data illustrative of the cycles of violence in family systems (Cyr, 1994). One in three inmates had been violent with their partner or child to the extent that there was a formal response by the legal system. Over half of the offenders had perpetrated physical or sexual abuse of their female partner which required medical attention. In one-third of the cases where the offender had physically or sexually abused a child, a physical injury requiring medical attention was inflicted on the victim. Almost one-half of the offenders had themselves been a victim of abuse (physical, sexual, and/or emotional abuse or neglect) as children/adolescents, or had witnessed family violence. A greater number had experienced abuse (physical, sexual, psychological, neglect) from their fathers, although some were abused by their mothers. In two-thirds of the cases where they witnessed physical abuse as a child/adolescent, the victim was their mother (or adult female).

This summary is just a partial reflection of the abundant evidence in the literature review, which shows that individuals who are victimized as children are more likely to be perpetrators of family violence as adults. Experiencing or witnessing abuse as a child is strongly related to adult perpetration of violence and abuse. Childhood victimization continues to have a demonstrable impact on later criminal and violent behaviours through
young adulthood and beyond. Physical abuse and to a lesser extent, neglect victimization, are particular risk factors for subsequent violence in males especially. Females are more likely to internalize the problems, with resulting depression and anxiety. Exposure to parental discord (such as conflict, disharmony and lack of agreement between partners) heightens the risk for conduct disorders and leads to increased risk of early offending.

When families experience stress, marital conflict, or frequent transitions (moving, children reaching adolescence, remarriage, divorce, prolonged illness, substance dependence, unemployment, etc.) family life is disrupted and appropriate discipline and supervision of children can break down. Ineffective parenting skills can lead to abuse and neglect and the use of harsh corporal punishment. Physical abuse predicts violent behaviour more than any other form of abuse. Sibling violence may cause poor school performance, depression, eating disorders, petty crime such as shop lifting to get the parents' attention, and running away from home. Support and assistance must be provided both to victims and to perpetrators of both parental and sibling violence and abuse.

I review next the role of social contingencies in the development and manifestation of antisocial behaviour in youth.

*Influences Related to the School and Community*

In terms of this final category--social contingencies--it is perhaps not surprising to note that the psychological isolation of antisocial youth, which is often first experienced as varying degrees of rejection, begins in a young person's home life. There is a strong connection between parental discipline and peer relations. Dysfunctional or abusive ways
of relating to others, which are learned in families, are often repeated in a child's or adolescent's relations with friends and classmates. Peer rejection then becomes the outcome of aggressive styles of interaction because peers are less likely to tolerate negative behaviour. There are significant differences, however, between younger children and adolescents. In childhood, complete rejection by peers is a common result of aggression. In adolescence, however, aggression can create status and power, and antisocial peers cluster together for support and a feeling of belonging. Research and clinical experience is showing however that the phenomenon of gang involvement which hitherto had been more of an adolescent phenomenon is now affecting younger children; there are versions of the gang called the Crips: Crips, Junior Crips and Baby Crips (the latter being as young as grade one children).

A distinction is made between two forms of antisocial behaviour: early versus later starters, or life-course-persistent versus adolescent-limited antisocial behaviour (Moffitt, 1994). Youth manifesting adolescent-limited antisocial behaviour are socialized to it primarily by their peers, while children manifesting life-course-persistent antisocial behaviour are socialized to this behaviour pattern by their families and primary caregivers. Neighbourhood dynamics which include deviant peers and youth gangs exert powerful influences for the development of antisocial behaviour, particularly for adolescents. Failure in school, socioeconomic disadvantage (e.g. poor community environment) and an antisocial peer group (or gang) form a powerful pathway which can exert strong influence for the development of antisocial behaviour.

Gangs tend to value exaggerated displays of masculinity, risk taking, and
autonomy. Violence is often part of the collective identity of a gang and its members. The status of young males based on toughness and fighting skills is part of gang life. The gang is ripe for violence since there is frequent and repeated interaction among individuals, bystanders are readily present, status is valued and restricted, there is low external social control, and violence can help individuals deal with issues of masculinity and status.

It is interesting to note that in the U.S., youths under the age of 18 years account for approximately 30 percent of all arrests for index offenses, including 19 percent of violent crimes and 35 percent of property crimes (Federal Bureau of Investigation, 1996). Further, such arrests greatly underestimate the prevalence of youth criminal activity (Elliott et al., 1987; Loeber et al., 1998) for many offenders are never apprehended. Serious and chronic juvenile offenders account for over 50 percent of the total volume of youth crime in a community (Farrington et al., 1986; Loeber et al., 1998; Moffitt, 1993).

If there is a value to identifying pathways, it must lie in the significance of awareness to identify problems early and to design intervention efforts appropriate for each of the particular pathways. These statistics, which do not count the suffering of victims and the unfortunate outcomes of a life of crime for perpetrators, would seem to indicate that there is work to be done. Crime in Canada has traditionally been dealt with through reactive measures — the apprehension, sentencing, incarceration and potential rehabilitation of offenders. This approach, while important, is expensive ($46 billion annually) and seems not quite sufficient in terms either of intervention or prevention.

The next section deals with these latter issues. It considers avenues through which we address the development of antisocial behaviour and their relative effectiveness.
Are there factors which prevent the development of antisocial behaviour and is it possible at any point to reverse a developmental course through intervention?

To first answer these questions briefly from a general perspective: yes, there are numerous effective preventive measures and there are successful intervention strategies. It is known, however, that once aggression is established, it tends to be stable. It is difficult, but not impossible, to change and success is dependent both on how early the intervention is made, and how effective a strategy it is. Multisystemic therapy is a newer intervention which is showing great promise. This will be addressed later on in the chapter.

First, I look at preventive strategies in terms of time frames from a developmental perspective: preschool years, elementary school years and junior/middle/secondary school years. Allusion to the child, the family and peers will be made as much as possible. Insofar as reversing the course of antisocial behaviour is concerned, this seems to be a more difficult matter. Research findings conclude interventions must target indications of antisocial behaviour as early as possible since there is a marked increase in aggression between first and second grade (Tolan, Guerra & Kendall, 1995). It has been pointed out that if children manifesting severe antisocial behaviour patterns are not successfully intervened with by the end of third grade (age 8), then the disorder should be regarded as chronic (Kazdin et al., 1987). This will be discussed in more detail subsequent to the presentation of intervention/prevention strategies for the following time frames: prenatal, infancy, early childhood, preschool years, elementary years, adolescent years.
Prenatal: Prepare Parents, Provide Supports to Parents

The health and well-being of the unborn child is affected by the experiences of the expectant parent(s) to meet the needs of the developing baby and the social and economic situation of the parents. Health is promoted with adequate nutrition, abstention from smoking, alcohol and drugs, and physical safety and well-being. Good prenatal care decreases the likelihood that newborns will experience difficulties such as birth weight, fetal alcohol syndrome or brain damage. This in turn, means better birth weight for babies, less likelihood of fetal alcohol syndrome or brain damage (possibly resulting in learning difficulties or hyperactivity). Community-based support programs and outreach to high-risk parents via school programs and mentoring with an experienced parent are recommended.

Infancy: Facilitate Secure Attachments, Prevent Child Abuse

It is known that parent-child bonding is affected by parents' isolation, maturity levels, understanding of child development and early child care, and socio-economic factors. In Canada, in 1994, more murder victims were under one year of age than any other single year of life (Brantingham & Easton, 1996). A high percentage of individuals who have committed violent offences have histories of abuse during childhood. Accessible and nurturing parents help infants to form secure and healthy attachments. Secure attachments promote the safety of the child, strengthen resiliency traits, and serve as a protective factor for children as they grow up. Preventing abuse means preventing neglect, emotional, verbal physical and sexual victimization, and exposure to the
victimization of others. Home visits and supports can decrease isolation, and provide education. Home visits have shown significant reductions in child abuse and parent/child attachment failures (Fuddy, 1992, Landy et al, 1993.)

*Early Childhood: Increase Family Cohesion, Improve Parenting Skills*

Children establish foundations for basic trust, empathy, self-esteem, resiliency and caring and respectful relationships in the early years of childhood. Cohesive families communicate effectively and resolve conflicts in nonaggressive ways. Children benefit when authority resides with the adults in the families. Consistent limits, discipline which is non-coercive and non-aggressive, the modelling of collaborative problem solving processes and age-appropriate supervision are important for healthy, prosocial development. Compulsory family studies programs starting in elementary school and continuing through high schools are important recommendations which address this issue. Others include the availability and affordability of quality child care, early identification of, and response to, high risk families with respite care, relationship and family counselling and family education programs.

*Preschool Years: Encourage cognitive and social development to decrease aggressive behaviour*

Essentially this involves decreasing violence and learning social competence and responsibility. Learning to deal effectively with frustration and anger and being able to express feelings constructively helps to prevent aggression in the home. Children who
witness violence and coercion in their families learn that threats and intimidation seem to be effective ways of solving conflicts. They learn about abuse of power and control in relationships. Boys who witness their mothers being assaulted may repeat the violence themselves. Violence in the media reinforces these learned views by desensitizing children to violence and by the frequent portrayal of women in victim roles and men in aggressor roles. Public awareness and education about the effects of media violence on children and active discouragement of violence in play and sporting activities are recommended. School programs to help children "unlearn" aggressive behaviours and develop caring and respectful ways of relating are also suggested. Early intervention in the cases of children demonstrating persistent aggressive behaviour will require coordinated efforts from health, social service and education sectors.

*Elementary Years: Improved Behavioural, Social and Academic Outcomes*

Academic, social and behavioural successes in the primary grades tend to predict adjustment and productivity in later years. Children who display antisocial behaviour frequently experience lack of success in school. They often begin school at a relative disadvantage to their peers; exhibiting aggressive behaviour, impulsiveness, inattentiveness and defiance. Family violence can negatively affect a child's ability to concentrate and cope with frustration at school. Programs that assist students and families with language barriers, literacy, settlement issues and parenting training provide examples of positive community interventions. Social skills programs, anti-bullying programs, education programs to reduce prejudice and hostility, peer-helper and conflict-resolutions
programs and before-and after-school child care programs are examples of school-based interventions. The early school grades, in particular, appear to be strategic times for identification of special needs and supports to facilitate children's academic and social competence.

Adolescent Years: Build Academic and Social Skills, Reduce Aggressive Behaviour and Unhealthy Community Environments, Facilitate Transition from School to Work or Further Education.

The values, attitudes and beliefs that guide the actions of adolescents have been acquired from the primary settings in which they grew up. Encouraging the use of appropriate and non-violent discipline is suggested to engender the development of self-control. Effective discipline means setting age-appropriate boundaries and limits and utilizing consequences consistently and without force when family rules are broken. Parents who are able can teach and model negotiation and problem-solving strategies. Others can be guided towards parenting training for themselves first. Schools can address prosocial skill development of children to offset rejection problems experienced by troubled young people.

Youth who are aggressive tend to be rejected: close to 67 percent of highly aggressive boys are rejected by peers, whereas only 20 percent of non-aggressive boys are rejected. The general pattern is for children who are both rejected and aggressive to be highest risk for conduct problems (Coie, Underwood & Lochman, 1991). Peer relationships are important to all children. Healthy emotional and social development is
fostered by inclusion in social and recreational activities with peers.

Special education services can assist ADHD-identified children and those with learning disabilities and ESL (English as a Second Language) to achieve academic success. A 1993 study highlights the relationship between school experience during early and late adolescence and criminality. Poor school performance and a weak bond to school will increase the probability of misbehaviour in school that, in turn, provokes disciplinary reactions. This escalates through elementary and secondary school, leading to a higher level of adolescent delinquency and, eventually, to adult offending (LeBlanc, Vallières & MacDuff, 1993).

Healthy community environments and the prevention of youth homelessness and youth crime are tied together. Schools and communities can provide substance abuse programs, early pregnancy prevention programs, and gang prevention programs. Tremblay et al. (1996) found that being part of a gang puts boys at higher risk of becoming heavily engaged in delinquency and lawbreaking. Facilitating involvement in schools and school transitions via co-op programs are recommended to increase job market skills.

Preventive initiatives must also address the overarching issues of child poverty, abuse and neglect. It is important to provide effective prenatal care for all expectant mothers and support following birth to facilitate attachment. Early identification of risk factors/problems and supports/clinical services would help to promote healthy family adjustments. Particularly for families who require assistance, accessible and affordable child care and education helps prevent abuse. Parental skills-training programs promote positive parenting and also decrease family violence. From an educational perspective,
school-based problem-solving and social skills training programs for children are known to add to numerous positive outcomes. Initiatives to address violence in families, schools, communities, and the media are becoming increasingly essential. In addition, support for families new to the country who are experiencing language barriers and settlement issues are beneficial. Links between family, school and community that are mutually supportive improve success and achievement at school. When children have opportunities to experience a variety of community activities, it promotes a sense of well-being and belonging which aids prosocial development. The school curriculum and structure must establish norms against substance abuse and all violence as well as graduated consequences for violation. Initiatives to deal with isolation of any kind, either in rural or remote communities, are positive preventive strategies which may enable children and families to develop a sense of themselves as part of a wider, caring community. The next section touches on overall recommendations from a public health and human resource development perspective.

**Recommendations**

**Public Health Approach**

Traditionally, youth violence has been addressed by justice or sociological domains and not as a concern for the public health system. In recent years a public health approach has been seen as an important resource to prevent youth violence. This approach emphasizes primary prevention which begins with the identification of behavioural or
environmental risk factors. The next step involves a proactive education of the community about, or to protect it from, these risks. Advocates for this approach argue that public health principles and strategies have reduced the number of deadly traffic accidents and the number of deaths attributed to tobacco use. The public health model includes five essential features:

1. Community-based methods for problem identification and the development of solutions across entire population groups
2. Health-event surveillance for gathering data to establish the nature of the health problem and to track relevant risk factors and the trends of its incidence and prevalence
3. Epidemiological analysis to identify risk factors and associated co-factors associated with the health problem
4. Intervention design and evaluation
5. Outreach/education/information dissemination.

A major value of the public health approach is that it enables individuals to think about youth violence not as an inevitable fact of life, but as a problem that can be prevented. It empowers people and communities to reduce the risk factors leading to violent behaviour (Hamburg, 1998).

Perhaps the single most important risk prevention strategy is the early identification of aggressive children. Countless studies have shown that serious early aggressive tendencies remain stable over time and in fact, tend to escalate. As seen in table 2, youth antisocial behaviour can be charted on a developmental pathway that
contains incremental stages for delinquency and violence. On this pathway individuals begin with minor offenses and work their way up to more serious offenses. The earlier the minor offenses begin and the more pathways penetrated, the more likely the individual will eventually become a serious violent juvenile offender. Successful early intervention programs involve the home and the school, with the home being the most critical element. In the early school years, symptoms of problems may first become evident. The problems are often first identified when a trained professional becomes involved and observes children’s difficulties in a social learning environment. Frequently these difficulties have their roots deep in the family system and in unresolved problems in the lives of the parents themselves, perhaps going as far back as their own childhoods. An important prevention strategy, therefore, involves identifying at-risk parents such as young teens, addicted individuals, those with a record of family violence and/or criminal offences, and those with mental health problems. Children in such families are at risk for maltreatment and neglect, which lead to a host of internalizing and externalizing disorders such as aggression, substance abuse, dropping out of school, early sexual involvement, and teen pregnancy. Exemplary public health approaches toward reducing juvenile offending target risk factors, protective factors, and immediate situational influences, as summarized below.

- Preventive interventions should target known risk factors within comprehensive community-based programs, particularly in disadvantaged neighbourhoods.
- Important early preventive measures include home visitation of pregnant women
and particularly teenage parents, parent training, preschool intellectual enrichment programs, and interpersonal skills training.

- Important targets for later prevention are reductions in gangs, victimization, gun availability, and drug markets.
- Universal screening to identify children in preschool or kindergarten/grade one with risk characteristics associated with violent or persistent offending is recommended.
- Essential components of effective service in reducing re-offending for high-risk individuals should be identified from comprehensive literature reviews.
- Conceptual models which specifically apply to the study of antisocial youth should be identified from the literature.

In summary, early onset of problem behaviours and children's position on the developmental pathway are important markers that can help identify those youth at highest risk for violence. Public health interventions are most effective when they address both the individual characteristics of children and the social contingencies that affect their aggressive responses.

**Social and Human Resource Development**

Piecemeal approaches to preventing antisocial behaviour exert little long term positive impact on the problem. The literature is conclusive that early and *systemic* intervention is by far the most effective strategy both in terms of outcomes and costs. The best strategies address a combination of personal, social and situational factors which
place children and youth at risk.

The main task of social and human resource development lies in creating nurturing, safe, and supportive social and home environments for children. This may entail cultural differences, but in general it is clear that the quality of childhood is intricately related to the health of society. Systemic human resource development issues include providing young women and men (particularly those at risk) with the knowledge, skills and support they need to raise healthy children. Working towards the reduction of teenage and sole-support parenting by comprehensive education and community involvement is a step in the right direction. At-risk families benefit from prenatal care and support, parenting skills, assistance for infants and children with developmental problems, childcare, recreation, and community development and support.

Violence prevention programs in schools are best geared to children's development levels: early childhood and preschool (ages 2-5), middle childhood and elementary school (ages 6-11), early adolescence and junior high/middle school (ages 12-14), and middle adolescence and senior high school (ages 15-18) (Samples & Aber, 1998). In each stage there are key developmental tasks regarding handling aggression and violence to be mastered. Schools and early child care venues provide an important environment for overall developmental success. School-based initiatives are strategically beneficial, particularly when phased according to appropriate developmental needs, as seen in the following overview.

*Early childhood* is seen as a critical stage in the development of aggressive violent behaviours. The development of self-regulation appears to be important during the
preschool years. It is also causally linked to other processes that lead to aggressive-violent behaviour. Caregiver-to-child ratios and the quality of these adult/child interactions are key environmental influences in the development of self-regulation. Resilient children, i.e., those who succeed despite significant adversity, share certain traits. These traits are shaped and strengthened in experience in their early learning environments. Trust, for example, develops in infancy when the child forms a secure attachment to an emotionally responsive caregiver. Competence, another such trait, depends on the support, encouragement and opportunities provided by older youths or adults. Individuals, settings and activities can serve as protective factors for children. Home visits can help reduce child abuse and violent behaviour in children and adolescents. The Hawaii Healthy Start Program (Samples & Aber, 1998) involved professionally supervised volunteers delivering a home visiting program on a state-wide basis. Mothers and children requiring more intensive support were made a priority. Among the results was a decrease in child abuse of 50 percent, reduction of violent behaviour in children and adolescents, lower school failure rates, and fewer children coming into care.

During middle childhood, the key tasks include the development of children's normative beliefs about aggression and the development of children's interpersonal negotiation skills. School contextual factors that can influence development at the middle childhood stage are: interpersonal relations with peers and classmates, teachers' perceptions of children's aggression, and the probability of exposure to antisocial youth. Bullying, which is based on the assertion of power through aggression is common in elementary schools. Researchers' observations of children on playgrounds and in
classrooms confirm that it occurs frequently: once every 7 minutes on the playground and once every 25 minutes in class (Craig and Pepler, 1997). For victims, repeated bullying can cause psychological distress and many related difficulties (Besag, 1989; Olweus, 1993). Bullying does much to create a climate of fear and victimization. Bullies acquire power over their victims in many ways: by physical size and strength, by status within the peer group, by knowing the victim's weaknesses, or by recruiting support from other children, as in group bullying (Olweus, 1991). With repeated bullying, the bully's dominance over the victim is established and the victim becomes increasingly distressed and fearful. An understanding of factors such as these enables the design of prevention and intervention efforts that decrease bullying. The literature shows that bullies tend to be hyperactive, disruptive, impulsive, and overactive. They are generally aggressive toward their peers, teachers, parents, siblings, and others. Bullies tend to be assertive and easily provoked. They are attracted to situations with aggressive content and have positive attitudes about aggression. Bullies are usually physically stronger and often have a need to dominate others. Bullies have little empathy for their victims and show little or no remorse about bullying (Olweus, 1993). Bullying usually involves more than the bully and victim 85 percent of bullying episodes occur in the context of a peer group. Peers tend to give positive attention to the bully, rather than the victim. (Craig and Pepler, 1997)

It is important that teachers, parents and other children to intervene to stop bullying. One Canadian study showed that intervention by adults took place in only four percent of bullying incidents observed in a school yard (Craig and Pepler, 1997). When bullying becomes established, the victims are not able to extract themselves from the
situation and victimization is perpetuated. Studies show that victims talk more often to parents than to teachers. As their children's most important advocates, parents must support their victimized children by working with the school to ensure their children's safety.

For the next development level—early adolescence—a key task is the development of a stable peer group. Whether that peer group is primarily prosocial or antisocial in orientation significantly affects the probability of aggressive and violent behaviour. As children enter adolescence, bullying declines somewhat and sexual harassment, both between boys and girls and within same-gender groups, increases. Unwanted sexual harassment, including comments, looks, gestures, and name-calling, is reported by 48 percent of 12-year-old children (McMaster et al., 1997). Although equal numbers of boys and girls report experiencing this form of bullying, more boys than girls acknowledge that they have sexually harassed other students. In culturally diverse geographic locations, children may be bullied because of their race or ethnic background. In Toronto, 14 percent of children report that they have been bullied because of their race (Pepler, et al., 1994). Within schools, anti-racism and anti-sexism initiatives are often considered together with anti-bullying programs under the umbrella of equity. The central feature of the intervention is a clearly stated code of behaviour with consistent and supportive follow-through. It takes considerable time to bring about both attitudinal and behavioural changes among the staff, students, and parents in the school community.

A key task of middle adolescence is the formation and consolidation of an identity, including a personal identity and racial ethnic identity. Early childhood interventions
employing an ecological violence prevention approach may help reduce violence by promoting overall social competence and providing hope for improving children's competencies in other developmental areas. There is evidence of the potential for childhood violence prevention programs to function as primary prevention initiatives for later delinquent/antisocial behaviour; particularly when these programs begin early and involve parents. Protective factors against problem behaviours such as delinquency, aggression, criminal offending and violence include: good self-esteem, trust, optimism and a sense of hope, a sense of self-reliance and independence, the ability to handle stress, sociability, the ability to experience a range of emotions, positive coping skills such as problem solving, appropriate development for one's age, less tendency to blame self for family violence, childhood competence, including things like doing regular chores, having a part-time job, and participating in both school and extracurricular activities (National Crime Prevention Centre, 1995).

Schools can play an important role in countering difficult home environments for at-risk children. Evaluation research indicates that school-based violence prevention efforts may serve as primary prevention for children, particularly when the intervention targets several key stages of development. School-based violence prevention programs are not enough, however, to change the tide of violence on school grounds. Changes in school policies and the way schools deal with the growing number of violent incidents are also necessary (Samples & Aber, 1998).
Multisystemic Therapy (MST)

For youth who are already breaking the law, multidimensional intervention in the community appears to be more effective than incarceration in preventing future criminal activity. Research concludes that multisystemic treatment for high-risk youth, delivered in the youth's environment and focused not only on the youth, but also on his/her family, peers, schools and neighbourhood, reduces recidivism. Such an approach reduces the need for supports from agencies and levels of government and costs less than the alternative of incarcerating these young people. There is also evidence that, even when young people are incarcerated, the prevention of recidivism is more likely if there is significant family and individual follow-up during incarceration and after release.

Multisystemic Therapy (MST) is an intensive family- and community-based treatment that addresses the multiple factors known to be related to delinquency across the key settings, or systems, within which antisocial youth are embedded. The multisystemic approach views individuals as being nested within a complex network of interconnected systems that encompass individual, family, and extrafamilial (peer, school, neighborhood) factors. Intervention may be necessary in any one or a combination of these systems. MST targets chronic, violent, or substance abusing male or female juvenile offenders, ages 12 to 17, at high risk for out-of-home placement, and the offenders' families. It strives to promote behaviour change in the youth's natural environment, using the strengths of each system (e.g., family, peers, school, neighborhood, indigenous support network) to facilitate the change.

The major goal of MST is to empower parents with the skills and resources needed
to independently address the difficulties that arise in raising teenagers and to empower youth to cope with family, peer, school, and neighborhood problems. Within a context of support and skill building, a specially trained therapist places developmentally appropriate demands on the adolescent and family for responsible behaviour. Intervention strategies are integrated into a social ecological context and include strategic family therapy, structural family therapy, behavioural parent training, and cognitive behaviour therapies. MST is provided using a home-based model of services delivery. This model helps to overcome barriers to service access, increases family retention in treatment, allows for the provision of intensive services (therapists have low caseloads), and enhances the maintenance of treatment gains. The usual duration of MST treatment is approximately 60 hours of contact over four months, but frequency and duration of sessions are determined by family need.

Evaluations of MST with serious juvenile offenders have demonstrated:
1) reductions of 25-70 percent in long-term rates of rearrest
2) reductions of 47-64 percent in out-of-home placements
3) extensive improvements in family functioning
4) decreased mental health problems for serious juvenile offenders.

MST has achieved favorable outcomes at cost savings in comparison with usual mental health and juvenile justice services, such as incarceration and residential treatment. At a cost of $4,500 per youth, a recent policy report concluded that MST was the most cost-effective of a wide range of intervention programs aimed at serious juvenile offenders. (Henggeler, et al., 1998).
A survey of Canadian Police officers revealed that police felt that current responses of the juvenile justice system work well for between 75 and 80 percent of young people, deterring further criminal behaviour. In particular, informal responses such as cautions, warnings, taking young people home to their parents and participation in diversion projects work well and are cost-effective. About 15 to 20 percent of youths who come into conflict with the law, however, are at high risk of becoming serious and repeat offenders. Police indicated wide-spread dissatisfaction with current responses to these offenders. Police officers felt that earlier and more intensive interventions were required for serious and repeat offenders, to get at the root cause of their behaviour and to develop appropriate, tailored responses. Multisystemic therapy may be of value for this particular group. Police officers did not argue for more punitive sentences than those currently given, but felt that better enforcement of some existing sentences is required. They viewed custody as appropriate in certain cases to ensure that the public is protected and that young people receive the help they need (National Crime Prevention Centre, 1998).

Literacy and Crime Prevention

Research done in Canada (MacLeod, 1994) and internationally shows that two of the factors that contribute to crime are low literacy and high drop-out rates from school. Unemployment and poverty are two additional factors that help crime thrive. People with low literacy levels have limited job opportunities and may find themselves in a cycle of poverty that is difficult to break. About 22 percent of adult Canadians 16 years and over fall in the lowest level of literacy. They have serious difficulty dealing with printed
materials and most likely identify themselves as people who have difficulties reading. Another 24 to 26 percent fall in the second lowest level of literacy. Such people can deal only with material that is simple and clearly laid out and material in which the tasks involved are not too complex. They read, but not well. It is known that many of the people who come in contact with the law have trouble reading and writing. For example, 65 percent of people entering prison for the first time cannot read or write well. Low literacy skills, which often go hand-in-hand with frustration and low self-esteem, make it harder for people who have been convicted of offences to make choices that do not involve criminal activity. For those who are in prison, literacy training boosts self-esteem and can help lead to more constructive opportunities. Literacy training can also help young people who are at risk of coming in conflict with the law with improved opportunities to make changes in their lives. Libraries located in high crime areas are finding that literacy can become part of a broader goal to stimulate individual and community development. Libraries can be places for people to meet, learn, talk and explore choices and opportunities.

Helping Children who Witness Violence

The literature is unequivocal about the negative effects for children of witnessing and experiencing violence in their homes and in the wider community. Providing support and treatment can help reduce a wide range of problems experienced by these children, as well as their own greater potential for future criminal and violent behaviour. In 52 percent of the violent relationships in which children witnessed such violence, women feared for
their lives, and in 61 percent of violent marriages witnessed by children, the violence was serious enough to result in the woman being injured. For example, almost one half (45 percent) of partner abuse cases resulted in physical injury to the woman. The most common injuries were bruises (90 percent), followed by cuts, scratches and burns (33 percent), broken bones (12 percent) and fractures (11 percent). Almost 10 percent of women stated that they suffered internal injuries and miscarriages. Weapons were used by 44 percent of violent spouses; this included 38 percent of women with a current or previous partner who had thrown something at them that could hurt them, 19 percent who were hit with something that could hurt them, and 16 percent who had a knife or gun used against them. Witnessing violence of this sort has serious long term consequences and a direct impact on the development of antisocial behaviour.

Research on wife assault has concluded that witnessing violence against one's mother will increase the likelihood that a female child will, as an adult, be involved in an abusive relationship herself. Further, there is indication that a male child will, as an adult, repeat the violence toward his own spouse. Given the strong relationship between witnessing violence as a child and later use of violence, it should be of concern that 39 percent of women in violent marriages reported that their children had witnessed violence against them.

Police intervention, mandatory laying of domestic assault charges, increased prosecution by the crown, and availability of social service shelters for women and children represent attempts to address this very serious problem. Violence in families is perpetuated through generations and will continue unless perceptions are changed.

**Reducing Inequality and Child Poverty**

A range of factors has been identified as contributing to antisocial behaviour and juvenile delinquency. These include poverty, unemployment, inadequate parenting, parental criminality, lack of success at school, and family discord, violence or disruptions. The relationship between poverty and crime is indirect and to a certain extent, unpredictable, but it is known to exacerbate many of the other risk factors associated with antisocial behaviour.

Poverty rates vary with family type, gender, age, employment, education, housing and the population size of the area of residence. Among families with children, rates vary with the number and age of the children. The 1995 poverty statistics were relatively high, with the overall poverty rate for Canadians at 17.4 percent. The number of poor Canadians has grown to 5.1 million people. For families in Canada, the 1995 poverty rate was 14.4 percent, with the total number of poor families at 187,000. For unattached individuals, the rate was 36.1 percent, with 1,399,000 individuals living in poverty. The poverty rate for female lone parents under age 65 with children under 18 was 57.2 percent. Female lone parents under age 25 had a poverty rate of 83 percent. Female lone parents who did not graduate from high school had a rate of 82.4 percent, compared with a rate of 47.5 percent for single parent mothers who did graduate. Female lone parents with children under seven had a poverty rate of 82.8 percent. Rising poverty
rates among families mean rising poverty rates for children. The child poverty rate for 1995 was at 20.5 percent, the second highest rate since 1980. This represented over 1.4 million children living in poverty. 

Reducing child poverty stands out as a significant factor in reducing crime internationally. Reducing poverty is a matter of social development: improving literacy and skills levels through education and training. Because many of today's occupations require post-secondary education and more advanced skill development, there is more intense competition for lower skills level jobs (National Crime Prevention Centre, 1998).

**Reducing Access to Guns and Weapons**

Children are increasingly feeling the need for protection and are arming themselves with various weapons to go to school. What has led to this attitude? According to a U.S. Department of Justice Report in 1993, fully 12 percent of sixth through twelfth grade students surveyed reported that they were victims of physical attack, robbery, or bullying in school, while more than half of such students witnessed such incidents and 25 percent were worried about becoming the victims of such incidents. Also, in 1993, 42 percent of students in grades six through twelve reported knowing of weapons in school, with a higher percentage of African-American students having knowledge of weapons compared to white or Hispanic students. In 1989 scarcely 15 percent of students claimed there were "street gangs" in school, however by 1993, 35 percent of the students said that there were "fighting" gangs in those schools (Shepherd & DeMarco, 1996).

A survey of Canadian schools (Walker, 1994) which involved questioning police
officers and educators on the extent of weapons use found that knives of all descriptions, including illegal switchblades, were the weapons of choice. Firearms were rare but present in some schools, and the use of firearm replicas is on the increase. The intensity of school violence is increasing, even at elementary school level. Violence in schools is greatest in urban centres with populations over 500,000, but the use of weapons in schools crosses all socio-economic boundaries. Students gave a variety of reasons for carrying weapons: personal protection, as a status symbol, to gain the approval of a peer group or to intimidate or injure other students. Educators are often reluctant to report the use of weapons in schools, fearing sensationalized media coverage of their school. Schools are increasingly involving students and parents in zero tolerance policies. A united common front, clear policy direction and specific enforceable consequences are viewed as partial solution to this problem. Alternative school and community programs - such as conflict resolution and anger management classes - are also positive initiatives that have the potential to positively impact on youth at risk

**Limited Successes of the Current System**

Miller, Cohen & Wiersma (1996) pointed out that the high costs of the current system must be considered in the context of its limited successes. They have indicated there is evidence that deterrence approaches, such as boot camps, zero tolerance programs, and other punitive exclusionary policies, may actually increase crime and marginalization. Excluding disruptive youngsters from schools may drive them towards crime, gangs and drugs. Attempts to control crime require a measured response if they are to be successful.
Statistics from the National Crime Prevention Council detail that despite small reductions in recent years, the crime rate in 1994 was 8 percent higher than the previous decade. The rate of violent crime increased by an average of 4 percent every year from 1978 to 1993, and is now 400 percent higher than in the 1960s. In 1993, approximately 24 percent of all adult Canadians had been the victims of at least one criminal act within the preceding 12 months. A further decline of 1 percent in the crime rate in 1995 still left the rate 6.8 percent higher than ten years before (National Crime Prevention Council, 1996).

The report *Youth Gangs on Youth Gangs* (Matthews, 1993) indicated that youth who are involved in violence and gangs are getting younger. It is not uncommon to find students in Grades 1 or 2 committing serious acts of violence. Gangs were once seen as the domain of boys but girls are now becoming more involved in gangs or group assaults and are using weapons such as guns and knives. The presence in schools of guns, gun replicas and other weapons is increasing and in some schools is common. School boards are reporting an increase in verbal and physical assaults on teachers and vandalism of teachers' cars and other property. Students are reporting that they don't feel safe at school or while walking to school. Extortion and drug dealing are becoming a routine part of the school day in some larger Canadian cities.

Because the current system emphasizes the control of crime, it focuses narrowly on people who commit crimes. It largely ignores the plight of the most vulnerable and the impact of poverty on our most disadvantaged communities. Donziger (1996) suggested that the trend toward ever-increasing imprisonment in the United States and Canada has coincided with a major reduction of social programs. The United States now has the
highest rate of child poverty in the industrialized world. Given the evidence that high rates of child poverty contribute indirectly to crime, the cutting of social programs will not help reduce crime, and may make the problem worse. Donziger (1996) argues that saddling more people with criminal records by increasing arrest rates may reduce their future ability to get jobs. This creates a vicious cycle of marginalization, unemployment and crime. In fact, he has suggested that prison itself is a vector for violence in three main ways.

Prisons are very violent places. To survive, inmates must learn survival skills which are themselves violent. Putting more men (and women) in prisons separates parents from their families. Maintaining family links appears to reduce the likelihood of reoffending. If men or women spend a lot of time in prison, they are less likely (and less able) to establish a steady work pattern in the community. Removing more people from the community may therefore actually help create some of the conditions that contribute to crime.

Social development approaches to crime prevention offer reduced costs and increased benefits over the long term. Social development appears to be a much better investment than approaches that work to control crime instead of preventing crime. For example, the Rand Corporation estimates that if we took $1 million and invested it in prison space for career criminals, this investment would prevent 60 crimes a year. If that same amount was used to monitor 12- and 13-year-old delinquents, it would prevent 72 crimes a year. Further, if that million dollars were invested in incentives for young people to graduate from high school, 258 crimes a year would be prevented (Greenwood et al., 1996).
In contrast to large and wieldy government meta-programs, numerous smaller community-based enterprises seem to offer the most promise of making positive differences. For example, the St. Lawrence Youth Association, a community-based program for high risk youth in Canada, found that for every dollar spent in the community, $1.50 was saved in residential corrections costs. The Los Angeles County Delinquency Prevention Program, which prevents recidivism through short-term crisis intervention and family support, produces savings of somewhere between six and thirty times the $300 U.S. spent annually on behalf of each of the program's 10,000 participants. The Jobs Corps program in the U.S., which provides more than 62,000 youth each year with basic education, vocational skills and a range of supportive services, significantly increased earnings and educational attainment, while reducing welfare dependency and the incidence of serious crime among graduates. It has been estimated that for every $1 U.S. of investment, a total of $1.45 U.S. in long-term savings and tax contributions is reaped by society (National Crime Prevention Centre, 1998).

In both the U.S. and Canada, there is a high level of public discontent with the justice system. Policy makers are dealing with growing criminal justice expenditures, growing victimization through crime, and growing public dissatisfaction with the juvenile justice system. The Parental Responsibility Act, legislation which was introduced in Ontario on April 4, 2000, would force parents of youths under the age of 18 who commit property crimes to prove they made reasonable efforts to control their child when sued for damages by victims in small claims court. If they fail to do so, judges can fine them up to $6,000. The legislation is an attempt to reduce the estimated 20,000 annual property cases
(almost half of the annual total) involving young offenders. Under the exiting law, the onus is on the victims to prove that the parents of the delinquent child were negligent. Under the new law, the onus would be on the defendants to provide they did all they could to control their child. The province of Manitoba has a similar law that has been in place for two years and judges in that province have awarded compensation only three times during that period (National Post, April 5, 2000). While such legislation is well-intentioned, research and experience would suggest that by the time youths are engaged in this kind of behaviour, parental control may be missing entirely or negligible. In addition, when young offenders are from welfare families and sole support mothers, there may be less likelihood of families paying compensation to victims.

While high levels of discontent do not automatically translate into high levels of support, communities must deal with their current realities at the same time as they adopt strategy to curb the development of antisocial behaviour. Clear and accurate information must be made available about how long it will take to see the benefits, and who will see those benefits. For example, a mental health service may resist putting up the money for a new program if it is the justice system that will reap the benefits in terms of savings.

A long-term and comprehensive vision of crime prevention would therefore include combining programs that have short-term benefits with others that represent longer-term investments. In addition, a workable and effective evaluation approach that would provide cost/benefit and/or cost-effectiveness information should be made publicly available. Costs (including costs across services, indirect costs and direct costs) over a specified time frame must be comprehensively measured. A workable program would
focus on one or two clear action priorities at a time and monitor progress with comprehensive evaluation strategies that can be widely implemented so that the public and policy makers have strong evidence available on which to base decisions.

**Exemplary Social Development Programs**

Variations of family strengthening and preservation programs seem to offer the most promise in terms of prevention. The following program is designed to serve low-income, at-risk pregnant women bearing their first child and is based on prenatal and infancy home visitation by nurses. This program is guided by a strong theoretical orientation, and consists of intensive and comprehensive home visitation by nurses during pregnancy and the first two years after birth of the first child. While the primary mode of service delivery is home visitation, the program depends upon a variety of other health and human services in order to achieve its positive effects.

Nurse home visitors work with families in their homes during pregnancy and the first two years of the child’s life. The program is designed to help women improve their prenatal health and the outcomes of pregnancy; improve the care provided to infants and toddlers in an effort to improve the children’s health and development; and improve women’s own personal development, giving particular attention to the planning of future pregnancies, women’s educational achievement, and parents’ participation in the work force. Typically, a nurse visitor is assigned to a family and works with that family through the duration of the program.

This program has been tested with both White and African American families in
rural and urban settings. Results showed that nurse-visited women and children fared better than those assigned to control groups in each of the outcome domains established as goals for the program. In a 15-year follow-up study of primarily White families in Elmira, New York, findings showed that low-income and unmarried women and their children provided a nurse home visitor had, in contrast to those in a comparison group:

- 79 percent fewer verified reports of child abuse or neglect
- 31 percent fewer subsequent births
- an average of over two years' greater interval between the birth of their first and second child
- 30 months less receipt of Aid to Families with Dependent Children
- 44 percent fewer maternal behavioural problems due to alcohol and drug abuse
- 69 percent fewer maternal arrests
- 60 percent fewer instances of running away on the part of the 15-year-old children
- 56 percent fewer arrests on the part of the 15-year-old children and
- 56 percent fewer days of alcohol consumption on the part of the 15-year-old children.

The cost of the program was recovered by the first child’s fourth birthday. Substantial savings to government and society were calculated over the children’s lifetimes. In 1997, the two-and-a-half-year program was estimated to cost $3,200 per year per family during the start-up phase (the first three years of program operation) and $2,800
per family per year once the nurses were completely trained and working at full capacity. Actual costs of the program will vary depending primarily upon the salaries of local community-health nurses. A combination of local, state, and federal funding sources have supported this program: Medicaid, welfare-reform, maternal and child health, and child abuse prevention dollars (Olds, Mihalic, & O’Brien, 1998).

Another example of a social development program is the Perry Preschool Program. It provides high-quality early childhood education to disadvantaged children in order to improve their later school and life performances. The intervention has been designed to combat the relationship between childhood poverty and school failure. Its main raison d'être is to promote young children’s intellectual, social and physical development. By increasing academic success, the Perry Preschool Program heads off difficulties related with involvement with antisocial peers, teenage pregnancy, welfare use, and early offending patterns. Also important, it improves employment opportunities and wages. The Program is aimed at low socioeconomic families who have children, ages 3 and 4.

It is designed as a two-year intervention that operates 2.5 hours per day, 5 days per week, for seven months per year, and includes weekly home visitations by teachers. Its success is largely due to the following components:

- A developmentally appropriate curriculum that views children as active, self-initiated learners.
- Small classrooms of 20 children and at least two staff to allow for a more
supervised and supportive learning environment.

- Staff who are trained in early childhood development and education, who receive supervision and on-going instruction, and who actively communicate with parents.
- Sensitivity to the non-educational needs of disadvantaged children and their families, which includes providing meals and recommending other social service agencies.
- Ongoing monitoring and evaluation of both teachers’ activities and children’s behaviours and development.

Evaluations have demonstrated a wide range of successful outcomes for Perry Preschool children, compared to those who did not receive intervention, including:

- Less delinquency, including less contact with juvenile justice officials, fewer arrests at age 19, and less involvement in serious fights, gang fights, causing injuries, and police contact.
- Less antisocial behaviour and misconduct during elementary school and at age 15.
- Higher academic achievement, including higher scores on standardized tests of intellectual ability and higher high school grades.
- Fewer school dropouts at age 19 (33 percent vs. 51 percent), and higher rates of high school graduation.
- Greater commitment to school and more favorable attitudes about high school.
- Higher rates of employment (50 percent versus 32 percent) and income, and
greater job satisfaction.

- Greater economic independence and less reliance on public assistance, including welfare usage.
- Fewer pregnancies and births for women at age 19.


The final example, a social development intervention from Montreal, Quebec, was designed to provide preventive treatment for boys who displayed early problem behaviour. It provided training for both parents and youth to decrease delinquency, substance use, and gang involvement. The program targeted white, Canadian-born males, ages 7-9, from low socioeconomic families, who were assessed as having high levels of disruptive behaviour in kindergarten. It combined parent training with individual social skills training; parents received an average of 17 sessions that focused on monitoring their children's behaviour, giving positive reinforcement for prosocial behaviour, using punishment effectively, and managing family crises. The boys received 19 sessions aimed at improving prosocial skills and self-control. The training was implemented in small groups containing both disruptive and non-disruptive boys, and it utilized coaching, peer modeling, self-instruction, reinforcement contingency, and role playing to build skills.

Results of the program have demonstrated both short- and long-term gains for youth receiving the intervention.

For example at age 12, three years after the intervention:
Treated boys were less likely to report the following offenses: trespassing, taking objects worth less than $10, taking objects worth more than $10, and stealing bicycles.

Treated boys were rated by teachers as fighting less than untreated boys.

29 percent of the treated boys were rated as well-adjusted in school, compared to 19 percent of the untreated boys.

22 percent of the treated boys, compared to 44 percent of the untreated boys, displayed less serious difficulties in school.

23.3 percent of the treated boys, compared to 43 percent of the untreated boys, were held back in school or placed in special education classes.

At age 15, those receiving the intervention were less likely than untreated boys to report:

- Gang involvement
- Having been drunk or taken drugs in the past 12 months;
- Committing delinquent acts (stealing, vandalism, drug use)
- Having friends arrested by the police.

These are clear benefits for high risk youth with results which were sustained. This program helped with school difficulties, which in turn has a positive impact on preventing antisocial behaviour development (Tremblay, Masse, Pagani, et al., 1996).

The three programs summarized (a prenatal visiting program, preschool intervention and early school intervention) exemplify approaches which have worked well. Besides these individual efforts, however, a larger public education process needs to run as
a parallel process so that communities can proactively address local difficulties.

Public Education and Public Policy Considerations

Accurate information about risks and protective factors for antisocial behaviour development should be made widely available - to the public through the media, to universities and teacher training institutions, to agencies and government bodies who work with disadvantaged families, and to policy makers and politicians. Antisocial behaviour affects Canadians and Americans in every walk of life and we all pay for the costs of crime.

Comprehensive communication programs such as those provided by the National Council on Crime Prevention and the Canadian Council on Social Development help to build awareness of the extent of the problem of antisocial behaviour. They offer excellent information and options for various groups to contribute toward solutions. The shared vision and commitment of strategic partners can strengthen programs that help reduce antisocial behaviour (e.g., teachers, day care workers, anti-poverty advocates) in order to make them part of a comprehensive strategy. Governments can make literacy, job training and job development priorities in a crime prevention strategy to give young people at risk of committing crimes the choices, opportunities and hope to build lives free of antisocial behaviour.

Approximately 63 percent of new offenders in federal correctional institutions test at or below a Grade 8 level in language and mathematics (National Crime Prevention Council, 1998). Governments, the private sector, and community agencies can provide
structured behavioural, or skills oriented, training. Chapter five details two such programs; a private sector program from the United States and a government-based Canadian program. Given the primary importance of early childhood experience, policy makers, communities and the volunteer sector can work together to strengthen families and communities.

Local and governmental priorities should include early identification and intervention for children and youth in danger of family violence, addressing needs of vulnerable groups including visible and ethno-cultural minorities. In addition, social development and crime prevention in ethno-cultural and visible minority communities (e.g., Aboriginal justice initiatives) can be made priorities. Literacy programs, youth training and employment opportunities programs are valuable. Public awareness and collaboration efforts should include the broad dissemination of information to aid local communities to develop and implement innovative ways to make neighbourhoods safer.

That cooperation and collaboration is possible is evident from a recent report by David Crane entitled Huge Price for Ignoring Care in Early Years. Crane is the economics editor for the Toronto Star and he is particularly committed to early childhood development. His coverage as well as other coverage concerned The Early Years Report, authored by Dr. Fraser Mustard and Margaret McCain, a former lieutenant-governor of New Brunswick. This 1999 report, which was commissioned by the Premier of Ontario, is going into its third printing following a circulation of nearly 20,000 copies to places such as Central and South America, the Caribbean, Africa, India and Europe. The World Bank, the Inter-American Development Bank and UNICEF are all using the report.
Fraser, who is considered one of Canada's leading experts in health policy, has given seminars in Washington and Australia, and well as various parts of Canada, outlined the findings and recommendations of the report. At the world bank meeting, Mustard joined World Bank president James Wolfensohn, Inter-American Development Bank president Enrique Iglesias, and U.S. Secretary of Health and Human Resources, Donna Shalala, in developing a strategy for early years in developing countries. At this same meeting, financier George Soros outlined how his meeting with Mustard had led his foundation to allocate $150 million for early years projects in Eastern Europe. A newly launched Australian government policy called *The Stronger Families and Communities Strategy* was influenced by the Mustard-McCain report. In Ontario, the premier has appointed a task force to implement the report's recommendations and has allocated $30 million to be used to help set up community-based early-years parenting and development centres.

Crane supports Mustard's view that Canada would get a much bigger dividend from redirecting the increasing funding for health care into early childhood development. When Mustard spoke at a recent breakfast meeting of business leaders in Ottawa, the owner of a hockey team pledged $50,000 to a community *Success by Six* Program (Crane, 2000). *Success by Six* is a United Way initiative which mobilizes people from voluntary groups, government, education, labour and business. It began with the United Way in Minneapolis, Minnesota in 1987 and has been since adopted by more than 200 U.S. cities. Edmonton and Toronto have started *Success by Six* programs and Montreal has a variation of the program called 1,2,3, GO! The Montreal group has calculated that there are 300 to 400 people working on the projects, with only about 15 percent of them getting
paid. This is surely a tribute to volunteerism and community collaboration. In Toronto, Success by Six awarded funding to eight groups that provide services in four areas: pre- and post-natal care, parenting programs, parent-child resource centres, and home visiting. The Success by Six program is based on the groundbreaking work in the Perry Preschool Project in Michigan which studied children from birth to age 27. This research showed that for every dollar spent on measures to improve the quality of life for young children, as many as $7 are saved later in costs for education, health, social services and the criminal justice system. (Vanier Institute for the Family, 1999).

Childhood development research concludes that the early years in a child's life are the time of the greatest development, and the period when adults have the most profound influence on how productive, resilient, compassionate and confident their children will be as adults. The family is the microcosm of the community, and the community reflects the larger levels of organization, including the city and the country in which it dwells. All levels of social organization are built upon relationships. If there is love and harmony within the local families, there will be love and harmony within the community. The community is only as strong and productive as are its constituent members. The day of partnership and alliance is upon us and these new phenomena can fuel the engine which drives the renewal of community and the inclusion of its most vulnerable and at-risk families and children.
Postscript

In My Own Voice - The Journey Continues

It seems a small miracle that research has progressed to the stage where the wealth of information contained in this thesis is available to anyone patient and persistent enough to do the digging. What's more, it has been a source of continuing wonder that the world's best scientific journals are so readily available via the Internet from the peace and quiet of our homes and offices. For the opportunity to do this work and for the facilitation of it via on-line access to the world, I have been incredibly grateful. I marvel at the power of research to improve lives, often where once there had been no hope. I have been tremendously impressed with the contributions of the universities, the associations, and the branches of government that collected and analyzed important data with far-reaching implications.

Numerous bright and dedicated souls stand out for both their clinical and research contributions. It seemed to me that those with close connection to both theory and practice have added untold dimensions of understanding to particularly knotty problems. For example, the literature on SVJ (serious violent juvenile) offending has often been quite pessimistic. Because of the tenacity of a number of researchers in the field, however, we now have increased knowledge of the etiology and progression of SVJ offending and the multiple factors involved. I've been grateful for the opportunity to hear a number of these renowned psychiatrists and psychologists in person at conferences, and I've been inspired by their dedication to these difficult problems.

Partly as a response to the impressive work I found, and partly due to straightforward protocol, the researcher in me attempted to complete the study with requisite scientific rigour. I therefore endeavoured to analyze the data with dispassionate, scrutinizing eyes and all the rational intelligence I could bring to the process. It rounds
things out somewhat to comment now on a personal and feeling level. It was particularly
dismaying—and periodically daunting—to see the extent of abuse and neglect in Canada
and the U.S. I am told by practitioners in the field that the official statistics are but a
fraction of the reality. My heart went out to thousands of nameless, helpless children
living in dreadful, and sometimes despicable, circumstances. For their parents, some of
whom were once victims themselves or who may be dealing with overwhelming multiple
life stressors, we can only hope for (and work towards) healing and other solutions. For
the single moms and particularly those who are still teenagers, we must provide long term
monitoring, care and support.

Certainly we need to increase awareness among young women especially, of the
long-term difficulties associated with the single parenting route. I saw first hand that some
young teens saw it as a positive option, and a relief from the rigour and discipline of high
school. I have vivid memories of numerous young women returning as veritable heroes to
East-West High School with their babies - often beautifully outfitted in the latest designer
baby outfits, new strollers and a batch of baby equipment, usually provided by Social
Services. The girls would arrive during class time and soon there would be a good-sized
gathering in the hall. We could hear the “ooo's and aahh's” from the classroom, and
shortly after a number of students were asking to be excused for a washroom break! In
contrast to our students in their uniforms of khaki pants and black or white golf shirts,
these young women looked like country club patrons, with wonderful attire, shining
jewellery and spectacular hairdos to boot. They didn't miss school much. My little
admonishments to the class afterwards could hardly compare with “the splendour” they
saw.

At East-West, my heart went out especially to the learners with ADHD and
learning disabilities. Theirs is a lonely and a hard road. Literacy issues hit home in a
major way. I soon learned in my Computer Science classes, that individual coaching was the only way. Many students could not read words like "file," "save," or "delete." I took me just a short while to figure this out. At first they were so worried that when I would say click on "file," they would click frantically all over the place. I soon learned to point at the word, say it, and locate it spatially for them - i.e. first row, second level down.

One day I was in the library and found a new program called The Academy of Reading on the resource centre computers. It looked interesting and I immediately volunteered my free time to learn it and help any students who wanted to try it. In no time the librarian and I were a team for part of the day when I was not assigned to the regular on-calls. Thanks to her good management, several classes were soon booking time on it. The system was based on phonics, with auditory and visual cues. This reading program turned out to be a huge boon; now each kid in a class of 25 had a personal tutor - the computer. I remember one particularly wild and aggressive 16-year-old whose whole demeanor changed in one year - the computer had given him 18 mastery awards. He could sound words and understand text for the first time in his life. Although I found some teachers tend to resist the incursion of computer-based learning, it was clear that this reading system was a powerful and practical solution for many of our kids. We completed a study and found that it was successful in improving the reading ability of every kid who tried it. It is now a core program component. I share this story because it is my belief that technology-based solutions will prove especially helpful with our high-needs learners. For many the growing ability to understand what they saw in print became a glowing light in a dimly lit world of lack and limitation.

It was this harsher world that I began to understand with a new clarity and certainly with a great deal of compassion. I began to look at the concept of violence from a larger perspective, and from a position which involved these young people who I knew and
loved. When they were apprehended for stealing a car or whatever, I grieved their misfortune with them, at the same time as I hoped their brush with the law would help to move them to more productive pathways. It seemed clear that as complex as many of their individual issues were, they shared the common underpinning of a simple truism: violence begets violence. Whether it was the violence of living in abject conditions, the violence of isolation and failure in the school system, or the physical and emotional violence of abuse and neglect, all shared a part in causing enormous suffering. I saw real and palpable suffering in these young lives. I also heard the “gangsta rap” blasting and thundering from the kids' car radios and I found it hard to take. I found their rough language and aggression hard to take also. I think it was more than just the generation gap.

I would like to share now a few “snapshots” from the last year or so. All of these snapshots registered personally in various ways and some are imprinted in my memory.

Snapshot:
Savage Spawn

I am leafing through the May 2000 issue of the Globe and Mail’s Report on Business Magazine. The cover story is entitled Rich, Famous and Furious: Comic-book artist Todd McFarlane built an entertainment empire armed with only a pencil - and the chip on his shoulder. McFarlane, a working-class Calgary kid, was apparently impacted as a child when his dad suffered through a series of job losses. Today he is a multimedia “gazillionaire” whose copies of the grisly comic book, Spawn, are distributed in 16 languages. Spawn is a savage CIA operative who is murdered and then returns to Earth as a demonic executioner. In the last six years, he has sold 150 million copies of Spawn, peddled 40 million toy action figures, and produced a motion picture that grossed more
than $100 million. His five private companies do $50 million worth of business annually; his personal wealth is estimated at 130 million (all U.S. dollars).

One of McFarlane's newest products is a plastic toy called Death Row Marv. He's a scarred convict strapped to a rudimentary electric chair. "Hit the switch and let the fun begin," reads the ad copy - "Pretend it's your boss." Last year, three McFarlane toys made the pre-Christmas Warped Toy List. First place went to Hatchet, described by The Hartford Courant as "a bloody disembowelled corpse. The figure comes with a combination axe/spear weapon, a shovel, a bendable spine and a handful of bloody hearts and intestines. There is also a small plastic face that can be hung on the figures's belt." In fifth place was McFarlane's Tormentor, billed as "a savage brute with no soul who lives to inflict torment, pain and terror on others." These toys are purchased for five-year-olds.

McFarlane maintains that violence depicted in a comic book or on a toy figure has no connection to violence in the streets: "One is pretend, the other is real." The man himself is a study in polarities: "Like the animated antiheroes that have made him a household name among adolescents everywhere, he is torn by duality. He is a Canadian competing in cutthroat America. He deplores the use of arms in American society, but he sells violence. He is successful, yet perpetually enraged. He is 39, going on 12. 'I'm more at peace when I'm fighting', McFarlane confesses." (Hutchinson, 2000, 34, 32).

Violence is big business.

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I am heartened to subsequently see a couple of months later that the Attorney General's office in British Columbia has labelled a brutal video game called Soldier of Fortune as an adult film. This effectively bans sales to anyone under 18 years of age. It has been defined as an adult motion picture "because its depictions of violence against persons and animals are brutal and portrayed realistically and explicitly. ... The object of
the plot is to create an environment where the participant can maim or kill as many assailants as possible with the level of viciousness that the participant chooses to employ. A player who kills adversaries is rewarded with weapons and ammunition including knives, shotguns, missile launchers, flame throwers and machine guns. Depending on which weapon is used, the participant can enact gory violence that results in the horror of evisceration, decapitation, dismemberment and victims burning to death (Lunman, 2000).

Snapshot

Two Different Worlds

I am sitting peacefully by the waterfront in Georgian Bay at a lovely camp ground. Our tents are a stone's throw from the water's edge. The shoreline is marked with the rugged beauty of gray shale, part of the great Canadian Shield. Because of this and the acid rain problem, you can see right to the bottom when you are swimming in 10 or 15 feet of water. It's one of my favourite places. With me are about ten others - family members and friends. We gather here a couple of times during the summer to swim in the clear water, to enjoy campfires and each other. It is July 2; a glorious Sunday morning has dawned. Coffee and a wonderful breakfast of bacon, eggs and hash browns has been prepared for the entire group by my brother-in-law, Zig. Someone has picked up a Toronto tabloid, The Sunday Sun, and it lies on the picnic table in the common area surrounded by our tents.

The headline in double-size black lettering reads, “CITY UNDER SIEGE.” Beneath it, the subheading is underscored, “and Our Kids Are Caught in the Crossfire.” The accompanying picture covers half the front page. It shows the beautiful face of a young black boy. In his baseball cap and cotton T-shirt with small silver chain, he could be your average neighbourhood kid enjoying the summer. Where he stands, however, is in
front of the Tadmore Variety store in the Jane-Finch area of Toronto, the scene of a robbery and senseless act of gratuitous violence. Shameel, 13, has lost his eye. One bright eye is bleakly balanced by one permanently closed lid on his cherubic face.

On Easter weekend, two men had pulled up in a dark coloured car to the convenience store, gotten out and started firing handguns at a group of teens. Shameel and several others ran into the store and out the back, but one gunman anticipated the move and ran behind the store to cut off their escape. Shameel was trying to hide when the gunman came up to him. This gunman held a pistol to the head of a terrified 13-year-old boy and pulled the trigger. The story details that the bullet barely missed his brain and that Shameel dodged death by millimetres.

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How do we define death? I myself “died a little” that idyllic Sunday morning at the campground, miles from the heart of a troubled Toronto neighbourhood. Perhaps Shameel and his mother did too. How many times? We can only guess. Has anybody heard? Is anybody there? Shameel's mother appealed to the community for information about the robbers. No one came forward. There is a powerful law of silence at work with these things. Just as there was at East-West High.

Snapshot:

Food for Thought

I am at the World Future Society Conference in Houston, Texas with Colin. Scanning the program, one workshop catches my eye. It is entitled A System for Preventing Violence in Teenagers Who Have a Violent History. In the session I learn that Appleton Central, an alternative school in Wisconsin, has met with success in changing violent behaviour through a food program quietly donated by a company called Natural
Ovens, researchers and bakers of nutritive breads. A free nutritious breakfast and lunch program, replacement of pop and snack machines with water coolers, and integrated staff and students in the dining room are part of the process. The breads served are made with flax seed, a good source of Omega 3 fatty acids which are known to enhance learning ability, among other good things.

The superintendent (Dr. Tom Scullen) reports that there are some tough economics involved: the school has lost $100,000 this year in funding because retention and academic standing have increased so much that it is no longer eligible for alternative funding. Dr. Scullen has plans to eliminate pop and candy bar machines in other schools, but has to phase them out carefully because kids like them and parents appreciate the income they provide for school activities. There are huge compensations, however. I learn that for the first time in her 18 years of teaching and administration, the school's principal has had four zeros on her annual report: zero deaths, zero expulsions, zero weapons on campus, zero drugs on campus.

The armed police officer (Dan Tauber) stationed in the school now does quiet counselling for kids who lose it from time to time. This is in contrast to pre-intervention times when he was continually breaking up fights and was often required to physically remove out-of-control kids from classrooms. Tauber has lost 30 pounds on the new food program and works out in the gym with the kids these days. He is a young, good looking, powerful role model and friend/mentor for these tough kids. They're all doing it together.

Also presenting in this session is Dr. Antonia Demas (1999) who has written a food science curriculum for inner city grade one kids. She talks passionately about a cooking program which has been wonderfully successful in establishing a nature/nurture connection for children hitherto deprived of both. Basic food science and nutrition are integrated with food history using recipes with rich sensory appeal from around the world.
They are a natural fit for the multicultural nature of the student bodies. Everybody cooks together and everybody eats together. The kitchen is “portable” and can be used in any classroom; often it is donated by a local business. Dr. Demas donates the last copy of her splendid book to me. I am thinking, as I look this over at home, that it would be as good for urban parents as it is for kids. I'd love to see Shameel and his mom enjoying one of these homey, communal, comforting meals with their friends. Getting healed and getting whole is a community issue; we are never separate from our environment. More often than not, there is little community in our highest-risk inner city neighbourhoods.

Snapshot:

**Urban Blight and Urban Parenting**

At another conference session focussed on reaching urban parents for parent training, I learn about neighbourhood characteristics in one area outside of Houston. Dr. Beth Manke, Professor of Psychology at the University of Houston, outlines conditions in a deprived neighbourhood centre where her students do community service for partial credit. Her study finds that:

3/4 of the families live in neighbourhoods that have:

- at least 3 abandoned buildings
- extensive graffiti
- bars on most business and home windows
- no playgrounds, parks or recreational centers
- more than 4 liquor stores, pawn shops and adult oriented businesses

Neighbourhoods were defined as 1/2 mile radius from parents' homes. The community is characterized by high crime, extensive loitering, little recreational opportunity and little prosperity. Parents are reluctant to get involved in parenting programs; they are more
worried about the safety of their children and themselves. It sounds quite a bit like Shameel's neighbourhood.

Snapshot:

Psychopathy

In a courtroom in downtown Toronto, Austin Cooper, a rather seasoned and normally imperturbable senior lawyer, breaks down as he reads aloud the transcript of a video tape taken by Paul Bernardo and Karla Homolka. When he gets to the part where Karla says to Paul: “I loved it when you f----- my little sister,” he just loses it. In the midst of the crowded downtown courtroom, tears flow copiously down his ashen cheeks. His voice has broken and the lump in his throat is so big he cannot speak. The judge grants a fifteen minute recess for everyone to collect themselves. The abhorrence of this case has already caused one lawyer to withdraw as counsel; she was close to nervous breakdown and required counselling assistance.

Bernardo and Homolka are well known: Bernardo is a serial rapist who was responsible for numerous brutal sexual assaults over a period of years. He and his wife, Karla, were responsible for the abduction, confinement, rape, torture and murder of two young teenage girls. They videotaped the gruesome proceedings. The quote which causes Austin Cooper to weep, is about yet another rape and murder - that of Karla's sister on Christmas eve in the basement of their family home.

Snapshot:

Violent Children and Guns

Colin presents me with a slim volume entitled Savage Spawn: Reflections on violent children he has just found prowling around in a used book store. Its author,
Jonathan Kellerman (1999), is a child clinical psychologist and professor of pediatrics of the University of Southern California. Kellerman's stories are riveting and his is a sobering message. I start the book and read it cover to cover in a single sitting. Among his stories is a review of the Jonesboro massacre. Two children (Mitchell Johnson and Andrew Golden, aged 13 and 11) set off a fire alarm, run for cover and fire 134 rounds into a group of students and teachers as they emerge from the building. Four little girls and a teacher are killed. These young killers have dressed in camouflage garb, stolen a van, filled it with a tent, sleeping bag, tools, food and an enormous quantity of ammunition and stolen weapons. Their arsenal consists of a .30-06 Remington rifle, a Ruger .44 Magnum rifle, a Universal .30 carbine, a Davis Industry .38 special two-shot, an FIE .380 handgun, a Ruger Security Six .357 revolver, a Remington model 742 .30-06 rifle, a Smith & Wesson .38 pistol, a Double Deuce Buddie two-shot derringer, a Charter Arms .38 special pistol, a Star .380 semiautomatic, six knives, and two speed loaders (Kellerman, 1999, 2).

Kellerman notes that years of clinical experience have led him to conclude that "psychopathic tendencies begin very early in life, as young as three, and they endure. ...There are no actual data regarding rates of rehabilitation as they relate to age, but clinical experience has taught us that the older the child, the less pliable his behavior. The optimist in me wants to say, Never give up on anyone. But the chances of eliminating entrenched psychopathic behavior in an adolescent are extremely low, if not zero" (p 48).

It seems that the behavioural and environmental signs indicating major problems in these two children were startlingly clear and present. One child even announced a couple of days prior to the massacre: "I've got a lot of killing to do." Nevertheless, in spite of numerous signs that perhaps should have set bells loudly ringing, one more senseless slaughter of innocent victims has been gruesomely enacted. The suffering is immense.
Snapshot

The FBI

At the World Future Society Conference, I see that two criminologists with FBI connections are presenting a session entitled *High Tech Criminal Profiling: The Future of Predicting Violence*. The session turns out to be a real disappointment. We get a tedious, historical and rather dreary look at how the profiling process has evolved. There is no information on the kinds of variables used, the Mosaic technology, or recent research findings on psychopathy. Finally, the presenters open for questions from the floor. I am glad to have the opportunity to ask about the Mosaic Profiling System, and Mosaic 2000. A fascinating scenario ensues. The two presenters get into a nervous and elaborate verbal tap dance, sidestep the subject entirely, and then they sashay quickly off the platform. So I am none the wiser about how these profiling systems work.

It may be remembered that Mosaic 2000 is being used in the U.S. and in Canada to assess risk for violence of elementary school students. After what I have seen about psychopathy in the literature review, in the popular press, and to a lesser extent via personal interface, I am thinking that this system has important value. At the same time, there arise significant questions about how the information will be managed. What do we do, in other words, when the technology tool tells us that the little six year old in Ms. Brown's grade one class is a budding psychopath? And perhaps the question more accurately is, "What does the FBI do ..." since it is the FBI who will have the information. Presumably it will be made available to the relevant educational institution, but even then, what will be the protocol?

This issue of FBI assessment, which is a fairly recent development, is to my mind one of the more critical elements of this thesis. At the very least, I believe it is essential that proper diagnostic processes occur so that treatment and intervention can be made
available for identified children and their families. Ethical issues and privacy issues, of course, surface immediately. Most of us will agree that taking steps to eliminate the horrific crime associated with psychopathy is a good thing. Many will also want to know that the information garnered from Mosaic 2000 is safeguarded, but further that responsible medical and professional bodies are involved in a formal public partnership with the FBI on this matter. As a start, the Centre for Disease Control in Atlanta may be one body which can bring a public health perspective to the process. I think this area needs further investigation and should be brought also to public awareness in general.

On this note, I complete the thesis. There is an inkling in my mind, however, that the journey has just begun. There is much work to do. There are many young people who can be helped, legions of desperate parents who need advice and assistance. There are teachers who need training, Boards of Education which need information, Ministries of Education which will want to review policies in the light of the FBI assessments, and so on. The journey continues.....

A few closing thoughts on a lighter note. I feel blessed to live within an easy drive of the great inland sea that is Lake Ontario. The boardwalk along its shoreline in Eastern Toronto is constructed of wide wooden planks which are nicely worn to a rounded, softened finish. They run for several miles alongside a curving sandy beach where the water deposits smooth grey pebbles and the odd bit of driftwood. This waterfront has been my home and hearth, in the wider sense of the words, for the past few years. Many a time it has restored my soul. On a few special occasions, it has bestowed moments of breathtaking beauty. I have often thought that if the troubled children and their moms and dads who live in our inner city ghettos had a little more beauty, a little more love, a little more wonder and joy in their lives, we would not have a phenomenon called antisocial behaviour. It simply wouldn't exist.
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Appendix A: Jack's Troubled Career

The following article is summarized from the National Crime Prevention Centre's web site:
The Dollars and Sense of a Comprehensive Crime Prevention Strategy for Canada
Building a Safer Canada: Community Based Crime Prevention

Jack's Troubled Career: The Costs to Society of a Young Person in Trouble

In most cases, the problems present in youngsters who become chronic and persistent offenders are evident by the age of three. Costs to both society, young offenders and victims add up over the years. The following fictional case outlines these costs to age 18.

Jack's First Three Years:
The scenario includes parenting problems exacerbated by alcohol abuse and spousal abuse. Of necessity, Jack receives regular visits by child welfare authorities during his first three years of life.

Costs: Child welfare services for three years at $2,300. Total = $6,900

Jack Aged Three to Five:
Jack's behaviour is becoming difficult to manage and he is showing evidence of both physical and psychological difficulties including impulsive and aggressive bullying behaviours. Social workers and the family doctor and child psychiatric services recommend subsidized child care.

Costs: Three years child welfare services at $2,300 a year, child care at $12,000 a year, and health and psychiatric services at $2,000 a year. Total = $48,900

Jack Aged Six to Ten:
Jack's home situation is worsened by the separation of his parents. His mother is now living with a partner who competes with Jack for his mother's affection and abuses him in the process. Jack is taken into the first of a series of foster homes. Unsettled, his behaviour problems return and he has difficulty getting along with his foster parents and their children. He is moved to five different foster homes over a 5-year period, disrupting his education and requiring the additional assistance of guidance counsellors and child psychiatric services to help his adjustment.

Costs: Five years child welfare services at $2,300 a year, foster care at $7,300 a year,
guidance counsellor services at $2,000 a year, health and child psychiatric services at $2,000 a year, and court services for one appearance at $1,000.
Total = $69,000

Jack Aged 11 to 14:
Jack's precocious acting-out behaviours at age 11, particularly with girls, prompt child welfare and educational services to recommend a group home placement. A series of delinquent acts in the community precede Jack's being charged at age 12 for incidents of shoplifting, vandalism, and mischief in a local shopping mall. Youth Court orders him to provide the mall with restitution services and Jack remains in the care of the child welfare services.

Jack's rarely sees his mother but when he does, it usually results in a period of disturbed behaviour in the group home and at school. By the age of 13 Jack is selling drugs at school and collecting payments by using aggression and force. When he seriously hurts a boy, charges are laid. For the second time, Jack is found guilty in court. He is placed on probation for a year, while continuing in the care of the child welfare services. With help, Jack completes his probation successfully, but at 14 years, he is now a physically mature young man with a serious anger problem.

Fortified by drink and drugs, Jack is AWOL from the group home, leading a group of friends in a car theft. He is caught, and the court sentences him to an open custodial placement and a year of probation supervision. At the custodial youth centre he meets other youths with backgrounds like his own. The court recommends psychological and psychiatric assessments, and he is found to be backward for his age, but no professional treatment is provided in the open facility.

Costs:

Four years of group home care at $36,500, special education services at $2000 a year, child welfare supervision at $2,300 a year; probation supervision for one year at $1,200; police contacts before age 12, $1,000; three police investigations at ages 12 to 14 at $1,500 each; four court sessions at $1,000 each; four police attendances at court at $250 each; two psychological and psychiatric assessments at $2000 each; three months open custody $19,250. Total = $198,150.

Jack Aged 15 to 17:

On completing his open custody sentence at 15 years of age, Jack returns to the same group home but attends school rarely. Again under probation supervision, but quite unsettled, he breaks into a local pharmacy to steal drugs with his friends. Apprehension by the police results in a further
remand in a detention facility for six months, followed by probation supervision. He has now made his fifth and sixth appearances in Youth Court.

Jack escapes from the facility, steals a car, and during a chase by police, crashes into another vehicle, killing the driver. At this court appearance, his seventh, he is sentenced to a secure custody facility for two years, with supervision to follow. Upon release at 18, Jack impregnates his girlfriend and the cycle of difficulties is about to repeat itself.

Costs: special education services, about $2,000; two psychological and psychiatric assessments at $2,000 each; three years for child welfare supervision at $2,300 a year; one year for group home care at $36,500; three appearances in Youth Court at $1,000; two police investigations at $1,500 each and three police court attendances at $250 each; two years of probation supervision etc. at $1,200; six months open custody at $38,500; one year closed custody at $91,500.
Total = $188,550

Grand Total for Jack’s Career to Age 17 = $511,500

The Moral of the Story

This shortened version of Jack’s story illustrates the how early difficulties in a child’s life predispose to antisocial behaviour and a multitude of attendant costs. Jack’s own life was a painful one, and his offences caused untold pain for others, which is not easily calculated in terms of dollars and cents. This story shows how important it is to invest early in helping young people and their families.

Compiled by H. Philip Hepworth, Senior Adviser, National Crime Prevention Centre, Department of Justice Canada. For a full version of this text, supporting references and other worthwhile information, see the publications of the National Crime Prevention Council of Canada (NCPC) at: http://www.crime-prevention.org/english/publications.
Appendix B: Canadian Crime Statistics

Crime Measurement: Two Sources of Information

Level of Crime
This is the level of crime reported to the police and is generally based on information from the Uniform Crime Reporting Survey (UCR), collected by the Canadian Centre for Justice Statistics (CCJS) at Statistics Canada. It is important to note that changes in the data-collection procedures over time may have affected the statistical picture of growth and change in crime over time.

Level of Victimization
This is the level of crime reported by victims in surveys, but not reported or known to the police. The information usually comes from random sampling of respondents over 15 years of age via the General Social Survey (GSS) by Statistics Canada.

Crime in Canada
In 1996, police reported 2.6 million federal statute incidents to the UCR (Uniform Crime Reporting Survey) (down 14.4% from 1993), of which most (90%) were Criminal Code incidents.1

In the 1993 General Social Survey, about one quarter (24%) of adult Canadians reported that they were victimized at least once in the 12 months before the survey. 2

Similarly, according to the 1996 International Crime Victimization Survey (ICVS), 25% of the adult population in Canada reported being victimized in the previous year.3

The police reported that the crime rate decreased for the fifth consecutive year (-1.6%) in 1996. Despite these recent decreases, the 1996 crime rate was 26% higher than 20 years ago. 4

Overall, self-reported rates of victimization have either remained the same or have decreased between 1988 and 1996. This apparent discrepancy may be due in part to increased public awareness of certain acts as crimes (e.g., spousal assault and school violence). 5,6

The reported crime rate grew until 1992 with decreases occurring in 1983, 1984, 1988, 1989 and has then declined from 1992 onwards. 7

A substantial number of victimizations are not reported to the police. Notably, it is estimated that 90% of sexual assaults and 68% of non-sexual assaults are not reported. 8,9

Important proportions of all offences (some studies suggest as high as 50%) are the work of between 5% and 10% of offenders. These are the persistent offenders. 10

A study of young offenders convicted in Canada’s youth courts in 1993-94 found that about 40% were repeat offenders. About one quarter of the repeat offenders were persistent re-offenders with three or more prior convictions. 11.
Fear of Crime

Although there has been a slight change or even a reduction between 1988 and 1996 in the percentage of people who reported being a victim of crime, almost half of all Canadians reporting in 1993 thought that crime had increased. Only 4% thought that it had decreased.12.

One in four Canadians feels unsafe walking in their own neighborhood at night. Only 10% of males reported feeling unsafe, whereas 42% of women reported feeling unsafe.13 The International Crime Victimization Survey found similar figures in 1996. 14.

Property Crime

Property incidents involve unlawful acts committed with the intent of gaining property, but do not involve the threat or use of violence. Theft, breaking and entering, fraud and possession of stolen goods are examples of property crimes. In 1996, there were 1.5 million property crime incidents, which accounted for 59% of Criminal Code incidents (not counting traffic offences).15.

For the most part, the rate of property crimes has remained quite stable since 1980. Overall, the only significant increases were in 1990 and 1991, coinciding with the economic recession. The rate of property crimes has dropped back to a level of about 5.2 for every 100 people in Canada.16.

Thefts of $5,000 and under comprised about half (53%) of the property incidents, and over one quarter (29%) of total Criminal Code incidents in 1996. 17.

One quarter of property incidents were break-and-enter offences. The targets of most of these incidents were residences (61%).18.

Of youth aged 12-17 charged in 1996, over half (56%) were charged with property offences. Nearly half of those were for theft under $5,000. 19.

Of the 117,773 youths aged 12-17 years charged with Criminal Code offences in 1996, 19% were charged with violent crimes. However, the rate of youths charged with violent crime fell 3.9%, marking the first notable annual decrease since 1986, the first full year in which ages for youth were standardized across the country according to the Young Offender Act. Nevertheless, the rate remains 9% higher than five years ago and 121% higher than in 1986. This difference over the last 10 years is largely due to increases in charges for assault level 1. 20.

Of 11 western industrialized countries taking part in the ICVS 1996, Canada’s victimization rates for violent offences, household burglaries theft, motor vehicle offences, and bicycle theft, were close to the average for those countries. 21.

Violent Crime

Violent criminal incidents include homicide, attempted murder, sexual assault, physical assault, abduction and robbery. The violent crime rate declined by 2.2% in 1996, marking the fourth
consecutive annual decrease. Prior to these declines, the violent crime rate increased for 15 straight years. Much of this increase is directly attributable to a large increase in the rate of common assaults (level 1), the least serious form of assault, which accounts for 6 in 10 violent crimes. Compared to 1986, the 1996 violent crime rate is 24.4% higher. If the category of assault level 1 is excluded from total violent crime, the increase drops to only 6.7%. 22.

Youth Crime

"Youth" refers to young persons aged 12 to 17 inclusive, as defined by the 1984 Young Offenders Act. In 1996, about 4.9% of youths aged 12-17 years were charged with Criminal Code offences. Since the 1984 Act, youths apprehended by the police are far more likely to be referred to the courts. 23.

While falling 3.6% in 1996 Criminal Code offences by youth remain 9% higher than in 1991 and 121% higher than in 1986. Youth crimes are predominantly committed by males, who accounted for 80% of the youth court caseload in 1996. The percentage of female offenders before the courts has risen from 18% in 1992-93 to 20% in 1995-96. 24.

Most crimes committed by youth are not violent. While the number of violent offences is small compared to other offences, the proportion of violent crime has been increasing, largely due to an increase in minor assaults. There was, however, a decline in violent crime by youth in 1996. 25.

A recent Calgary study revealed that even though persistent offenders represented only 3.2% of the total number of young offenders, they were involved in 14.1% of the criminal occurrences. 26.

A longitudinal study of 10,000 boys born in Philadelphia in 1945 found that less than 7% of the sample were responsible for nearly 70% of all crimes attributed to the 10,000. 27.

Many young offenders do not reoffend. In 1995-96, 40% of the cases referred to the youth court involved reoffenders. Persistent offenders accounted for 10% of the caseload with a conviction (11% of the male caseload versus 5% of the female caseload). As young offenders move toward persistent re-offending, the number of charges per case increased. 28.

Victimization: Who, When and Where?

Overall, the rates of personal and household victimization are higher in urban areas than in rural areas. The 1993 GSS reports that 27% of urban residents reported that they had been victims of crime in the previous year, compared to 17% of rural residents. 29.

Lifestyle and socio-economic status may place some people at a higher risk of victimization than others. In both rural and urban areas, those with the highest rates of personal victimization included women, young people, people who are not married, students, and those who are involved in 30 or more outside evening activities per month. 30. People in households with incomes lower than $15,000 reported the highest violent victimization rates. Those with the highest income had the highest personal theft and household crime victimization rates. 31.

The rate of household crime is highest for people who live in semi-detached or row houses or
duplexes, compared with apartments or single dwellings, and for those who own their own dwelling. 32.
The highest number of violent victimization incidents occurred between 6:01 p.m. and midnight. More personal victimization occurs in the summer than any other time. 34.

**Relationship between Criminal and Victim**

Strangers commit only 29% of violent crime. Over two thirds (73%) of victims of violent crime in 1994 knew their assailants (in cases where the victim-accused relationship was known) - 41% were acquaintances of the accused, 26% were family members and 6% ex-spouses. 35. Over three-quarters of the victims of both minor assaults (83%) and sexual assault (78%) knew their assailants. Spouses accounted for 18% of accused persons in minor assaults, while strangers made up 17%. Of sexual assault victims, 35% were assaulted by a casual acquaintance, 22% by a stranger, 11% by a parent, 13% by another family member, 8% by a close friend, 6% by a business acquaintance and 5% were unknown. 36. While most violent crime victims knew their accused, the accused was a stranger to the victim in over three-quarters of robbery incidents. Robbery was the only violent crime where the majority of accused were strangers. 37.

Over the period of 1974–1992, a married woman was nine times more likely to be killed by her spouse than by a stranger. 38 Nineteen females were killed in 1996 by current or former boyfriends. In all, about 40% of all female victims in 1996 were killed by a male with whom they had an intimate relationship at one point in time, either through marriage or dating. 39. Other family related homicides in 1996 included: 47 victims killed by a parent (35 by a father/stepfather and 12 by a mother), 25 by one of their children (up from nine in 1995), seven by a sibling and 24 by another relative. Of the 47 children killed by parents, the majority were male (61%), while almost three-quarters (72%) were less than six years old.

**Justice Spending**

Government spending on the justice system reached $9.9 billion in 1994-95. Consistent with government spending in other areas, justice expenditures in 1994-95 represented a current dollar increase of 35% and a constant dollar (inflation adjusted) increase of 13% over 1988-89. 40. Spending on policing services accounted for the majority of justice costs (58%), while corrections accounted for 24% (19% on adults and 5% on youths), followed by court (8.4%) and legal aid (6.5%). 41.

**References**

3. CCJS, Juristat, "Criminal Victimization: An International Perspective,"
Appendix C - Reference Guide

Indications of Four Categories of Difficulties for Children

* See DSM IV (Diagnostic & Statistical Manual) - 50% of categories need to be manifested for a six month period.

Oppositional Defiant Disorder (ODD) *
- Lost temper
- Argued with adults
- Actively defied or refused to comply with adults’ request or rules
- Deliberately annoyed people
- Blamed others for their mistakes or misbehaviour
- Were touchy or easily annoyed by others
- Were angry or resentful
- Were spiteful or vindictive

Conduct Disorder (CD) *
- Bullied, threatened, intimidated or coerced others
- Initiated physical fights
- Hit, kicked, bit or used a weapon (e.g. stick, stone or toy) to hurt another child
- Were part of a male gang or clique which threatened, bullied or coerced others
- Were part of a female gang or clique which threatened, bullied, coerced, isolated, or ostracized others
- Willfully destroyed school property or the property of others
- Confronted and stole other children’s things
- Invaded the personal space of other children
- Were physically cruel to people or animals

Attention Deficit Hyperactivity Disorder (ADHD)*
- Worried and anxious in general, or avoids former interests
- Sad or depressed on a regular basis
- Hyper-vigilant (alert and “on edge”) and easily startled
- Difficulty concentrating, “spaces out,” or has given up
- Regularly complains of stomach aches or headaches
- Secretive and withdrawn
- Clings to adults
- Irrational fears or guilt, or bad memories or bad dreams regularly
- Bossy with peers, quick temper or argumentative

Child Abuse
- Worried and anxious in general, or avoids former interests
- Sad or depressed on a regular basis
- Hyper-vigilant (alert and “on edge”) and easily startled
- Difficulty concentrating, “spaces out,” or has given up
- Regularly complains of stomach aches or headaches
- Secretive and withdrawn
- Clings to adults
- Irrational fears or guilt, or bad memories or bad dreams regularly
Appendix D:
Summary of Characteristics Correlated with the Development of Antisocial Behaviour in Youth

Consistent with a biopsychosocial approach and a systems perspective, the following combination of physiological and environmental factors have been found to be influential in the development of antisocial behaviour in young people.

Children
- Marked early aggressiveness
- Cognitive, language, and motor deficits suggestive of brain damage, documented instances of head trauma, poor performance on neuropsychological tests
- Co-existing attention hyperactivity disorder (ADHD)
- Reading difficulties
- A history of physical and sexual abuse
- Exposure to frequent, high-level episodes of extreme violence
- Lower levels of intelligence (below 90)
- Difficult temperament, low self-esteem, lack of adequate life skills, lack of self-control

Characteristics of Fathers
- History of imprisonment
- Drug and alcohol abuse
- Psychopathy
- High reactivity to stress
- Alienation
- Aggression

Primarily within the Family:
- Adverse family situations and poor parenting (low nurturance and warmth, poor early attachment, ineffective or harsh discipline and abuse)
- Neglect - low levels of parental involvement and supervision of child
- Conflict resulting from inadequate and/or inconsistent discipline style (parent-child rejection)
- Violence towards spouse or other children
- Additional indications of family chaos such as psychiatric conditions and/or parental promiscuity
- Criminality, incarceration and substance abuse (alcohol and/or drugs, especially cocaine)
- Low IQ (90 or below, low educational status.
- Parental characteristics (alcoholism, criminality, violence, lack of
Disruption (unhealthy marital relations, parental absence, parental physical and emotional health, especially maternal psychiatric illness)

- Metafactors such as socioeconomic disadvantage (indirectly correlated)
- Disruption (unhealthy marital relations, parental absence, poor parental physical and emotional health,
- Socioeconomic disadvantage, low maternal educational status and maternal lack of social support

**Neighborhood and Community**
- Criminal subculture (e.g., drug dealing, prostitution)
- Low organizational participation among residents
- Low social support available from church, neighbors, and the like
- High mobility
- Association with deviant peers

**Individual Adolescent Characteristics**
- Low verbal IQ
- Immature moral reasoning
- Cognitive bias to attribute hostile intentions to others
- Favorable attitudes toward antisocial behavior
- High involvement with deviant peers - low involvement with prosocial peers
- Poor social skills
- Poor academic performance, low commitment to education, dropout

**Protective Factors**
- A mother who is well looked after during pregnancy
- Married to a nonviolent father - intact, loving family
- High IQ - intelligence is strongly negatively correlated with violence, even in children with low arousability and troubled backgrounds
- High arousability - high resting heart rates. Youngsters at high risk for criminality because they have criminal fathers are more likely to avoid crime if their resting heart rates during childhood were high. When bright boys from intact homes do turn bad, the link with underarousal is especially strong (Raine, 1997)
- Resilient temperament, strong coping skills
- High self-esteem
- Strong family ties and positive relationships with teachers, or other significant adult figures
- Clearly established rules and expectations
- High socio-economic status