THE SUITABILITY OF CURRENT ALTERNATIVE EDUCATIONAL APPROACHES IN RESPONDING TO THE RECURRENT AGGRESSION OF ADOLESCENT FEMALES.

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CHAPTER 1

INTRODUCTION

With the recent publication and subsequent popularity of books like *Odd Girl Out* (Simmons, 2002), *Queen Bees & Wannabes* (Wiseman, 2002), and *Sugar & Spice & No Longer Nice* (Prothrow-Stith & Spivak, 2005), authors have been drawing the public’s attention to the ‘hidden culture of aggression in girls’ for the last few years. Researchers on the other hand, have been exploring this issue through qualitative studies on female aggression for more than two decades (Lagerspertz, Bjorkqvist, & Peltonen, 1988; Crick & Grotpeter, 1995; Galen & Underwood, 1997; Artz, 1989; Owens, Slee, & Shute, 2000; Moretti, 2004; Pepler & Craig, 2005).

Behaviors associated with aggression include physical violence or assaults, pushing, scratching, verbal threats and insults, as well as more covert acts such as gossiping, practical jokes, back-biting, and the spreading of rumors (Lagerspertz, et al., 1988; Blorkqvist & Niemela, 1992; Crick & Grotpeter, 1995; Galen & Underwood, 1997; Archer & Coyne, 2005). Increasing reports of female bullying, assaults, verbal threats, and arrests for violent crimes reinforce the need to pursue this area of research in an effort to understand the
nature and function of girl aggression and to develop appropriate intervention strategies (Artz, 1998; Underwood, 2003; Moretti, Odgers, & Jackson, 2004; Prothrow-Stith, 2005).

Risk factors associated with female aggression include changing societal expectations that encourage girls to play aggressive sports and watch movies with ultra violent heroines (Prothrow-Stith & Spivak, 2005); sexual and physical abuse (Underwood, 2003; Moretti, et al., 2004; Pepler & Craig, 2005); the connection between academic problems, delinquent peer groups and the participation in risky behaviors (Chesney-Lind, 1998) the need to relieve boredom (Owens, et al., 2000); and the sense of power and status among peers (Artz, 1998; Bjorkqvist & Niemela, 1992). Although the possible causes are varied and widespread, recurrent female adolescent aggression affects all aspects of these girls’ lives as they experience increased incidents of victimization, both physically and sexually, mental health problems, peer and family conflicts, attachment issues, higher levels of depression or anxiety, and learning difficulties (Artz, 1998; Pepler & Sedighdeilami, 1998; Odgers & Moretti, 2002; Underwood, 2003; Jones-Bamman, 2004).

The educational system is not immune to these behaviors with escalating incidents of physical confrontations, verbal threats, and covert aggression among female students (Artz, 1998; Jones-Bamman, 2004). While the typical school level interventions - student codes of conduct, district discipline policies, and mediation - are capable of curtailing the majority of situations involving such
negative behaviors, there is a minority of the female school population which requires a more specialized approach that is beyond the traditional classroom. Frequently, these students would be considered at-risk for school failure, learning difficulties, dropping out, and potentially harmful acts against fellow students and themselves (Artz, 1998; Pepler & Sedighdeilami, 1998; Pepler & Craig, 2005). Referral to an alternative educational or at-risk program offers students “who are failing academically or may have learning disabilities, behavioral problems, or poor attendance, an opportunity to achieve in a different setting and under different and innovative learning methods....often characterized by flexible schedules, smaller teacher-student ratios, and modified curricula” (DeRocco, 2005, p. 3). Although the majority of the alternative program participants are male, “it has become clear that a sizable minority of girls are involved in other forms of aggression...which has for years persisted as a relatively invisible but destructive behavior” requiring the creation and implementation of gender-specific programming (Moretti, et al., 2004, p. 2). Unfortunately, since the pervasiveness of female aggression has been previously underestimated (Underwood, 2003), curricular components of alternative programs addressing this issue focus on the risk-factors and characteristics typically associated with boys’ aggression (Underwood, 2003; Moretti et al., 2004; Pepler, Madsen, Webster, & Levene, 2005). The assumption is “that all you had to do to make a program designed for boys work for girls is to paint the walls pink and take out the urinals” (Chesney-Lind, 1998, p. 1). Several
researchers believe this perception is flawed, maintaining the duplication of techniques used with boys fails to address the different needs, perspectives, risk-factors, and experiences of their female counterparts. (Artz, 1998; Underwood, 2003; Moretti et al., 2004; Prothrow-Stith & Spivak, 2005)

**Aim of the Study**

It is the intention of this project to examine the literature regarding aggression and consider the effectiveness of Alternative educational program curricula and intervention strategies attempts to address the specific needs and issues of the growing contingent of aggressive female students. This study will attempt to answer the following questions:

1. What is the form and function of adolescent aggression?
2. Who is the highly aggressive girl?
3. Are alternative educational programs currently responding to the needs of the highly aggressive girl?

In order to respond to these questions, it will be necessary to review the many variations of aggressive behavior, including the developmental trajectory of aggressive behaviors, and the purpose of these behaviors. Secondly, the characteristics and risk factors associated with highly aggressive adolescent females will be described based on the findings of current research. And finally, consideration will be given to the response of the school system
and community resources in meeting the needs of these at-risk girls.

**Research Methods**

The scope of this study includes the nature of aggression, characteristics of adolescent females considered at-risk, and educational programming targeting aggressive and antisocial behaviors. The two types of aggression will be examined, overt and covert, and defined as key terms in this study. The function and purpose of aggressive behaviors, both direct and unconventional, will be identified. Such behaviors will be considered in terms of a continuum of development for adolescent girls. The salient correlation with direct aggression and indirect/relational/social aggression will be considered and linked to the development of maladaptive behaviors of some adolescent girls. The final section of the study will examine the limited research on alternative programming with specific interventions for female aggression, using examples of school and intervention programs.

The study was based on published books, article collections, and journals using periodical search engines such as ERIC (EBSCO), ScienceDirect, ProQuest, Wiley Interscience Journals and Blackwell Synergy. Searches of these databases relied on the following keywords: girls, female, aggression, behavioral disorders, conduct disorder, at-risk, direct aggression, relational aggression, social aggression, adolescents, alternative educational programs, and alternative educational curriculum. Studies pertaining to gender
specific aggression, indirect and direct, alternative education programming, and aggression intervention programs were of primary relevance. Additional quantitative and qualitative studies on adolescent violence, peer relationships, educational statistics, and theories related to the development of aggression contributed to the varying perspectives presented in this study.

**Significance of Study**

The importance of this topic was first realized with the increasing enrolment of female adolescent students in the alternative educational programs servicing students in the Burnaby School District. Eight years ago, there was a female to male enrolment ratio of 1:10 in the district At-Risk program. Currently, there is 1 girl for just 3 boys participating in the program. Similar patterns were experienced by colleagues in all of the other alternative classes. Female students are being referred to the program and other similar offerings throughout the district for increased levels of aggression, school failure, attendance and truancy, conflicts with adults, and victimization of peers. Yet, there was no restructuring of these programs or the introduction of new intervention strategies to accommodate and better service the changing make-up of the student population. The author intends to use the information gained from this project to implement improved instructional and social development strategies within the classroom and to impact the district wide planning and structure of existing and future alternative programs.
The relevancy of this study lies in the belief that the behaviors and experiences of the aggressive adolescent female lay the foundation for continuing mental health and relationship difficulties in the future. To divert or alter such a trajectory in a positive way will require methods that are research based and that target girls’ delinquent, aggressive, and antisocial behaviors. Ideally, effective and appropriate interventions will result in short-term outcomes of decreased contact with a deviant peer group, improved relationships, reduced levels of anxiety and depression, a noticeable reduction of violent confrontations replaced with a reliance on problem-solving skills, and improved academic performance. Long-term benefits for providing a structured and successful intervention program will include reduced risky behaviors including unsafe sexual activity, drug and alcohol usage, and criminal activities, reduced displays of antisocial and delinquent behaviors, and successful high school graduation with occupational opportunities.
Definitions

1. Aggression: an act done with the intention to harm another person, oneself, or an object (Bjorkqvist, K. & Niemela, P., 1992, p. 4).

2. Indirect Aggression: a type of behavior in which the perpetrator attempts to inflict pain in such a manner that he or she makes it seem as though there is no intention to hurt at all (Bjorkqvist, K., Osterman, K., & Kaukiainen, A., 1992, p. 118).

3. Relational Aggression: behaviors that harm others through damage (or the threat of damage) to relationships or feelings of acceptance, friendship, or group inclusion (Crick, N.R., Werner, N., Casas, J., O’Brien, K. Nelson, D., Grotpector, J. et al. 1999, p. 77).

4. Social Aggression: the manipulation of group acceptance through alienation, ostracism, or character defamation directed towards damaging another’s self-esteem, social status, or both, and may take such direct forms as verbal rejection, negative facial expression or body movement, or more indirect forms such as slanderous rumors or social exclusion (Galen & Underwood, 1997, p. 589).

5. Alternative Educational Program: a nontraditional educational service, ranging from separate schools for students who have been expelled to unique classes offered in a general education school building (Tobin & Sprague, 2000, p. 178).
Limitations and Delimitations

1. While the information presented in this project might be relevant to more ‘traditional’ or common place female adolescents aggression, the focus will be more on the extreme end of the aggression continuum that warrant referral to alternate programming or additional specialized support within the student’s home school.

2. The analysis will not be considering theories of social development or behavior management strategies.

3. Although a brief review of the aggression trajectory will be included in the study, this information will be limited and brief.

4. Methods to measure and identify aggression in child and youth will not be discussed. Although various researchers have created an assessment tool, that information will not be included as part of this project.
CHAPTER 2

LITERATURE REVIEW

Types of Aggression

Historically, aggression research tended to focus on observable behaviors including threatening, arguing, and physical assaults and was typically associated with males. Consequently, the physical nature of aggression was the dominate component of the definition (Forrest, Eatough, & Shevlin, 2005). The lack of attention on female aggressive behaviors resulted from a low prevalence rate (Underwood, 2003), perceived female passivity (Forrest et al., 2005), minimal societal impact (Pepler & Craig, 2005), difficulty identifying more subtle forms of aggression, and researchers who were predominately male (Bjorkqvist & Niemela, 1992). With the research contributions of Lagerspetz et al. (1988), Cairns, Cairns, Neckerman, Ferguson, and Gariepy (1989), Crick and Grotpreter (1995), a more comprehensive meaning of aggression evolved referring to “an act done with the intention to harm another person, oneself, or an object” (Bjorkqvist & Niemela, 1992, p. 4). This broad
definition allows for the inclusion of direct and indirect forms of aggression (Crick & Grotpeter, 1995; Chesney-Lind, 1998; Moretti, et al., 2004; Stack, Serbin, Schwartzman, & Leningham, 2004). Although it is now universally accepted that either gender displays aggressive behavior, researchers contend that males and females engage in all types of aggressive activity although at different levels (Bjorkqvist & Niemela, 1992; Moretti et al., 2004).

The overt indicators of aggression are considered to be assaultive behaviors such as fighting, kicking, punching, and scratching and hostile verbal acts consisting of threats, name calling, insults, hurtful teasing, and verbal intimidation (Bjorkqvist et al., 1992; Artz, 1998; Owens et al., 2000; Underwood, 2003; Pepler & Craig, 2005). According to Underwood (2003), these confrontational behaviors distinguish themselves from more covert aggressive acts because the victim knows the perpetrator and experiences some level of physical pain, threat, fear, and/or embarrassment. Physical and verbal aggression requires the involvement of at least two people. Most physical fights occur over a short period of time and the victim knows when the assault is over. These behaviors are more open and observable not only to the victim but also to onlookers who witness the exchange.

In contrast, covert forms of aggression are more difficult to characterize, consequently, researchers have generated three different terms to identify such conduct - indirect aggression (Lagerspetz, et al., 1988), relational aggression (Crick & Grotpeter, 1995) and social aggression (Cairns, Cairns, Neckerman, Ferguson,
Gariepy, 1989; Galen & Underwood, 1997). Bjorkqvist, Lagerspetz, & Kaukiainen (1992) originally defined indirect aggression as “a type of behavior in which the perpetrator attempts to inflict pain in such a manner that he or she makes it seem as though there is no intention to hurt at all” (p. 118). Aggressive behaviors associated with this construct include gossip, spreading rumors, backbiting, breaking of confidences, and social exclusion (Archer & Coyne, 2005; Xie, Cairns, & Cairns, 2005). Bjorkqvist et al. (2001) later modified the definition to incorporate more visible forms of hostility such as ignoring, dirty looks, and rolling of the eyes.

Relational aggression relies on the manipulation of social relationships (Underwood, 2003; Archer & Coyne, 2005: Xie et al., 2005), preventing the victim from satisfying “social needs for closeness, acceptance, and friendship” (Crick, Casas, & Nelson, 2002, p. 98) Indirect and relational aggression share many of the same characteristics, although relational aggression implies a more confrontational interaction by including threatens to terminate a friendship, or refusing to listen to someone (Archer, 2001; Underwood, 2003; Archer & Coyne, 2005; Xie et al., 2005, p. 108).

According to Galen and Underwood (1997) the objective of social aggression is to damage “another’s self-esteem, social status, or both, and it may take such direct forms as verbal rejection, negative facial expression or body movements, or more indirect forms such as slanderous rumors or social exclusion” (p. 589). Social aggression relies on the manipulation of the social
network, while indirect aggression can include acts where the perpetrator can commit a hostile act using vandalism and sabotage to achieve the desired outcome (Geiger, Zimmer-Gembeck, & Crick, 2004).

Although researchers have been unable to reach a consensus regarding which interpretation is more representative of covert aggressive behaviors (see discussion of issue in Archer 2001; Underwood, 2001; Underwood, Galen, & Paquette, 2001), the literature reveals a variety of possible outcomes when these strategies are utilized by a perpetrator (Cairns et al. 1989; Owens, et al. 2000; Underwood, 2003; Xie et al., 2005). According to Cairns et al. (1989) nonconfrontational behavior is a socially acceptable way for children and adolescents to express anger and manipulate their social network. Studies suggest that girls find indirect/relational/social aggression more emotionally stressful (Crick, 1995) and as painful as physical aggression (Lagerspetz et al., 1988; Galen & Underwood, 1997; Owens, et al. 2000; Xie et al., 2005). In a study of female high school students in Australia, Owens et al. (2000b) described a series of emotional responses and feelings associated with victims of relational aggression. Initially, girls are confused and try to downplay the impact of the offensive act through denial or by covering it up. Internalizing the emotions of the situation, the victim is hurt and experiences a loss of self-confidence, anxiety, paranoia and fear. Finally, the victim will seek to resolve or escape the situation by changing their social
group, leaving the school, using peers to help negotiate an end to the aggression, or in extreme cases, contemplate suicide.

Features of female relationships such as close intimate friendships (Bjorkqvist et al., 1992; James & Owens, 2004; Xie, et al., 2005), a willingness to disclose personal thoughts and feelings (Xie, et al. 2005), and the need to belong to a social group (Artz, 1998; Owens et al., 2000) make girls more susceptible to nonconfrontational aggressive behaviors (Owens et al., 2000; Underwood, 2003, Moretti et al., 2004; Pepler & Craig, 2005). Boys, on the other hand, typically enjoy a larger circle of friends that extends throughout their community; consequently, peer conflict tends to have less impact (Pepler, Walsh, & Levene, 2004).

Using qualitative and quantitative data from the Carolina Longitudinal Study, Xie et al. (2005) identified several functions of covert aggressive acts as inflicting harm, undermining others’ social status, and communicating social norms to peers. Owens, Shute, and Slee (2000) concluded that indirect aggression strengthens the cohesiveness of the social group by creating intimacy among group members, and reaffirms individuals as members of the group. It is also seen as a way of gaining attention and a form of entertainment, specifically “as a way of alleviating boredom and creating excitement in their lives” (p.28). Most importantly, the covert nature of this aggression, affords the perpetrator an opportunity to “successfully neutralize self-condemnation by diffusing and displacing responsibility when his or her identify can be obscured behind the fabric of social networks” (Xie et al. 2005,
p. 111), thus reducing the chance for retaliation and punishment (Lagerspetz et al. 1988; Cairns et al. 1989; Owens et al, 2000; Underwood, 2003; Pepler & Craig, 2005). According to Xie, et al. (2005) complete anonymity is only achieved about 10 to 20 percent of the time (p. 119), and approximately one-fifth of these covert situations escalate into physical or verbal aggression (p.120).

In order to effectively take advantage of these potential outcomes, researchers suggest that the perpetrator must be able to put his/her intentions to harm another person in a favorable light. At the same time, s(he) has to interpret the reaction of others and accommodate his/her behavior for the social manipulation not to backfire” (Kaukiainen, Bjorkqvist, Lagerspetz, Ostermen, Salmivalli, Rothberg, & Ahlbom, 1999, p. 88). Using a peer estimation technique with 526 adolescents, Kaukiainen et al. (1999) found that the effective use of covert aggression required a high level of social intelligence (Salmivalli, Kaukiainen, & Lagerspetz, 2000; James & Owens, 2004), or the ability to understand the complex network of social relationships (Xie et al. 2005). Bjorkqvist (1994), cited by Owens et al. (2000), revealed that there was a correlation between the use of indirect aggression and the level of social intelligence demonstrated by the perpetrator. It was determined that 15 year old girls have higher levels of social intelligence than 11 year old girls, consequently they are more apt to rely on social aggression as an effective strategy.
Developmental Trajectory of Aggression

Tremblay et al. (1995), (cited in Pepler and Craig, 2005; Xie et al. 2005), found physical aggression is most prevalent during the toddler years for both boys and girls. Alternative forms of aggression become more common as children develop communication skills, the ability to understand and interpret the social environment, self-control and anger management skills, and less coercive problem-solving methods (Cairnes et al. 1989; Bjorkqvist et al., 1992; Crick & Grotpeter, 1995; Owens, Shute, & Slee, 2005; Pepler, 2005). Children and adolescents replace physical aggression with verbal and indirect/relational/social strategies in order to cause harm, manipulate their peer group, or gain power and status (Lagerspetz, et al., 1988; Cairns et al., 1989; Bjorkqvist, Osterman, and Kaukianen, 1992; Galen & Underwood, 1997; Pepler & Craig, 2004). Bjorkqvist et al. (1992) suggests that there is very little disparity between genders relative to verbal aggression, indicating that boys and girls are “equally skillful” (p. 60) at using this form of aggression.

Originally, research supported the view that both genders use a variety of aggressive strategies; however, boys consistently relied on more physical forms, while the majority of girls depended on covert methods to achieve their social objectives (Lagerspertz, et al., 1988; Cairns et al., 1989; Bjorkqvist et al., 1992; Crick & Grotpeter, 1995; Owens, et al., 2000; Salmivalli et al., 2000: Moretti, et al. 2001). However, Merrell, Buchanan & Tran (2006), in their comprehensive review of literature on relational aggression,
cite several recent studies (Goldstein, Tisak, & Boxer, 2002; Henington, Hughes, Cavell, & Thompson, 1998) reporting boys exhibit more covert aggression than girls, as well as studies (Crick, Bigbee, & Howes, 1996; Xie, Farmer, & Cairns, 2003; Galen & Underwood, 1997) indicating that girls and boys do not differ in the frequency of indirect/relational/social behaviors during the elementary and middle school age range.

Relying on peer reports, Salmivalli and Kaukiainen (2004) compared aggressive strategies of boys and girls between the ages of 10 and 14 years. The study suggests that boys use physical aggression substantially more than girls; however, there was only a slight difference between levels of verbal aggression, and virtually none in terms of indirect/relational/social aggression. Peets and Kikas (2006) found similar results in their study of the frequency of physical, verbal, and indirect hostility, prompting them to conclude that “boys, compared to girls, tended to manage their anger and conflict by using all the aggressive strategies more frequently, which indicates that aggression, regardless of the forms it takes, belongs to the behavioral repertoire of boys rather than girls” (p. 75).

Who is the Highly Aggressive Girl?

Moffitt, Caspi, Rutter, and Silva (2001) theorizes that while males “are socialized towards aggression, females are socialized away from it, and therefore an aggressive female is deviant, whereas an aggressive male is conforming” (p. 152). In the
literature, these ‘deviant’ girls’ disregard for societal expectations are associated with high rates of overt and covert aggression, violence, smoking, drug and alcohol usage, unprotected sexual activity, early school leaving, and minor criminal activity (Odgers & Moretti, 2002; Stack et al. 2005), and earn the girls a label of violent (Artz, 1998), at-risk (Pepler & Sedighdeilami, 1998), delinquent (Leve & Chamberlain, 2005) and high-risk (Odgers & Moretti, 2002; Odgers, Moretti, & Pepler, 2003). Moretti et al., (2001) characterize this minority group of females as “heavily engaged in controlling and manipulating their social networks, and at the same time, are quite ready to lash out physically towards others” (p. 119).

In the book *Sex, Power, and the Violent School Girl*, Artz (1998) combined data from the *Survey of Student Life* and the information garnered from her interviews with six adolescent girls, to provide a detailed glimpse into the world of the violent girl. She describes an environment where girls are struggling for a sense of belonging, have a low self-esteem, and experience high levels of stress and anxiety brought on by fear of victimization and paranoia that others are conspiring against them. Although friends are important, these relationships are more alliances of power and cooperation that could be broken and escalate into conflict at any time. The girls report significant problems at school, academic and social, as well as difficulties at home with their parents and siblings. Attention from boys is very important, generating a competitive atmosphere within the social environment. Position,
dominance, and power within the social hierarchy is paramount and when “girls become involved in controlling and containing their social context through relationally aggressive acts, social situations may escalate to the point that girls are provoked or believe it is necessary to engage in overtly aggressive and assaultive acts” (Moretti, et al., p. 122).

Odgers and Moretti (2002), suggest that frequent use of relational aggression by girls is a “marker” for the use of more severe types of physical aggression within their social relationships. The strongest correlation occurs with the combined use of social and persistent physical or verbal aggression, and future internalized problems including depression and anxiety as well as externalized maladaptive behaviors such as delinquent and antisocial behaviors, conduct disorder, criminality, and teen parenthood (Odgers & Moretti, 2002; Moretti et al. 2004; Pepler & Craig, 2005). Moreover, Stack et al. found that highly aggressive girls experience a pattern of “violent, neglectful, or coercive interpersonal relations in successive stages of the life course (e.g., bullying and coercive peer relations; dating and spousal violence; child neglect and abuse; elder abuse). It is also seen in terms of associated health risks (e.g., smoking, substance abuse, early and unprotected sexual activity) and violation of legal and social conventions (e.g., traffic infractions and other nonviolent crimes, school dropout, early parenthood, unemployment, and welfare dependency)” (p. 276)

Researchers suggest that girls, who are deviant and more aggressive compared to their peers, will demonstrate increased
delinquent activities as teenagers (Moffitt et al., 2001; Underwood, 2003). In the book *Sex Differences in Antisocial Behaviour: Conduct Disorder, Delinquency, and Violence in the Dunedin Longitudinal Study*, Moffitt, et al. (2001) use data from a longitudinal study of over 1000 children between the ages of 3 and 21 years of age to propose two constructs - life-course persistent and adolescence limited antisocial behaviors- to describe this phenomenon.

The development of antisocial behaviors associated with ‘life-course persistent’ originates in young children with “inherited or acquired neuro-psychological variations, initially manifested as subtle cognitive deficits, difficult temperament, or hyperactivity” (p. 208) Ineffective parenting, attachment issues, and poor social relationships could possibly trigger the onset of aggression and antisocial behaviours. Subsequent rejections from a peer group, poor school performance, or association with deviant peers become recurrent experiences that will continue into adulthood. (Underwood, 2003) Approximately 1 percent of the female population participating in the study fit the criteria for life-course persistent (Moffitt et al., 2001).

The onset of adolescence-limited antisocial behavior begins in early adolescence with the onset of puberty. Moffitt et al. consider the impact of the family and environmental conditions for this kind of adolescent onset as “simply average” (p. 207) downplaying it as a risk factor. Teenagers with this type of developmental pattern “may engage in particular forms of antisocial behavior (such as drinking, smoking, or violating curfews)
as one way of demonstrating their maturity, autonomy from parental demands, and the connectedness with older peers” (Underwood, 2003, p. 195) For these youth, their criminal and delinquent behaviors will desist as they mature and become adults. Of the 450 female participants in the Dunedin Longitudinal Study, only 78 were identified exhibiting behaviors associated with the adolescence-limited model (Moffitt et al. 2001).

The longitudinal study of 97 adjudicated female adolescents by Lanctôt, Émond, and Le Blanc (2004) produced similar results to the Dunedin Longitudinal Study. Relying on self-reporting, participants commented on their involvement in various delinquent activities including violence, weapon possession and use, threats and intimidation, and indirect violence (encouraging others to start a fight) during three testing periods - mid-adolescence, late-adolescence, and early adulthood. Almost three quarters of the girls (73%) of the girls had committed a violent act in the year prior to the first testing period (p. 79). With the onset of adulthood, however, only 36 percent of the girls had been involved in violence in the preceding year (p. 79). This decrease in violent behavior was accompanied by a decline in the variety of acts committed, as “31% of adjudicated female were involved in a high variety of violent conducts (at least five types of violent behaviors) during mid-adolescence, this proportion dropped to 4% at the beginning of adulthood” (p. 82).

Moffitt et al. (2001) and Underwood (2003) suggest that female delinquent behaviours, including violence and acts of
assault, are prominent by the age of 14 while in contrast, boys tend to become involved in delinquent activities later in adolescents, generally by 16 years of age (p.139). The Xie et al. (2005) study of data from the Carolina Longitudinal Study revealed that the participants identified as the violent-crime group showed normative levels of aggression throughout childhood with a marked increase of aggressive behavior by grade 9, approximately 13 or 14 years of age (p. 127). Youth Court statistics for Canada support the findings of these researchers, showing females with the largest proportion of cases at age 13 (9%), age 14 (18%), and reaching the highest level by age 15 (24%). During the following years, female criminal activity will decline. In contrast, males accounted for 7 percent, 13 percent, and 20 percent at the same respective ages (Robinson, 2004) and continue to increase with the move towards adulthood.

One of the current debates in literature relates to appropriateness of the diagnosis of conduct disorder (CD) for an aggressive adolescent girl. According to the Diagnostic and Statistical Manual of Mental Disorders-fourth Edition (DSM-IV, American Psychiatric Association, 1994) a person diagnosed with CD must demonstrate three out of the following four behaviors: violation of rules, deceitfulness (lying or stealing), destruction of property, and aggression to people and animals within a 12 month period. In the article Aggressive and Antisocial Girls: Research Update and Challenges, Odgers and Moretti (2002) propose that the existing symptoms are based on social norms violations, and since
these norms differ between the genders, the value of this diagnosis and its current symptoms are in question. Keenan and colleagues (2005) state that “the prevalence, correlates, and prognosis of CD in girls has not been adequately assessed in a population-based representative study” (p. 30). To correct this situation and ensure that girls are being properly diagnosed, Odgers and Moretti (2002) propose a revision of the existing concept of CD to include the presence of co-occurring mental health problems along with the external behaviors of the original definition.

Typically, CD affects 5 percent to 10 percent of girls (Zoccolillo, Paquette, Trembay, 2005) but according to an earlier study by Zoccolillo and Rogers (1991), cited by Leschied, Cummings, Van Brunschot, Cunningham, & Saunders (2001), 90 percent of aggressive girls would be accurately categorized with a CD diagnoses. (p. 205). Moreover, aggressive girls currently receiving the designation of CD are “more likely to suffer from comorbid conditions of attention-deficit hyperactivity disorder (ADHD), anxiety disorder, depression and substance use disorder than their male counterparts” (p.109). In addition, girls are more likely to meet the criteria for post-traumatic stress disorder (PTSD) more often than boys. Keenan et al. (2005) relate these findings to the ‘gender paradox’ where the gender (girls) “with the lowest prevalence of a disorder appears more at risk to develop another, relatively rare comorbid condition than the gender with the higher prevalence of a disorder” (p. 36). Zoccolillo (1993), cited by Underwood (2003), recommends adjusting the DSM-IV criteria for girls by requiring only
two instead of three symptoms and add rule violation as an additional symptom. Based on the results from a study examining the frequency of conduct problems in girls growing up in a high-risk environment, Keenan, Stouthamer-Loeber, and Loeber (2005), concluded that it is necessary to adjust the diagnostic criteria for CD for gender-specific behaviors, creating a list of symptoms that are not “constrained by stereotypical assumptions” (p. 42) about what is deemed deviant or unusual behavior. In contrast, Moffitt et al., (2001) is supporting the continuation of the current definition as there was very little gender difference between study participants of the *Dunedin Longitudinal Study* diagnosed with CD and the occurrence of comorbid disorders.

**Risk Factors**

The highly aggressive adolescent girl is located at the far end of the aggression continuum, propelled there by a variety of adverse experiences during the developmental stages. According to Rutter (1990), cited in Pepler and Sedighdeilami (1998), risk factors “which reside both within individuals and their environment, lead directly to disorder” (p.8). Moffitt et al. (2001) suggest that aggressive and antisocial girls and boys are exposed to similar risk factors including antisocial peers, ineffective parenting, hyperactivity, family violence, and academic problems. Sexual and physical abuse, early onset of puberty, and depression however, are risks that are typically seen as more common or unique for females (Odgers, Schmidt, & Reppucci, 2004). Odgers and Morretti (2002)
believe that high-risk girls are more likely to experience multiple risk factors occurring at the same time and at increased levels than their male counterparts. Consequently, one risk factor “may have relatively little impact, but in conjunction with a host of other risk factors, and at certain points in development, it may exert a powerful influence on adjustment” (Odgers & Moretti, 2002, p. 107).

The family is one of the more influential factors in the developmental trajectory of aggressive girls. Family histories collected by Levene et al., (2005) as part of an intervention program for aggressive and antisocial girls, are typical of what many girls experience at home including marital conflict, single parent homes, harsh discipline, ineffective parent practices, and strained mother-daughter relationships (Leschied, et al. 2000). Many aggressive girls have direct experience with physical, verbal and sexual assault or have witnessed domestic violence within their home environment. Separation and loss of family members, especially a parental figure, was common in the interviews. Artz (2004) described the aggressive girls’ families as “networks based on battles for control and dominance where fathers fought with mothers, some mothers fought back almost on a daily basis, parents fought with children, and siblings fought with each other” (p. 107). Because many of these family relationships resist any permanent damage from a serious altercation, Pepler and Craig (2005) suggest that girls are able to openly “express aggression and [are] less likely to suffer for their transgression of sex-role
norms” (p. 16). In fact, Levene et al. (2005) suggest that aggressive girls could test out deviant strategies on brothers and sisters as a way to improve effectiveness and ease of use.

Researchers have consistently shown a strong correlation with girls’ aggressive antisocial behaviors and experiences in abusive and traumatic homes (Artz, 1998; Chesney-Lind, 2001; Pepler & Craig, 2005; Prothrow-Stith & Spivak, 2005). Information garnered from the Survey of Student Life study (Artz, 1998) indicated that 20 percent of the aggressive girls that participated in the study were afraid of being physical abused at home (p.45) and almost 25 percent had been sexually abused (p. 239). Chesney-Lind (2001) cites a 1990 American Correctional Association report claiming 60 percent of incarcerated girls had been victims of sexual abuse, while 54 percent had experienced some form of physical abuse (p.38). Artz (1998) suggests that the aggressive behavior displayed by some at-risk girls could be considered as a protective or defensive measure to avoid subsequent revictimization. Pepler and Craig (2005) propose that abusive experiences within the home may negatively effect a girls’ ability to “form trusting relationships and may provide models of ineffective parenting, which they carry forward to their own motherhood” (p.15).

Two risk factors associated with increased levels of aggression in girls, attachment (Underwood, 2003; Moretti, Dasilva, & Holland, 2004; Pepler & Craig, 2005) and rejection sensitivity (Downey, Irwin, Ramsay, & Ayduk, 2004) correlate with the sense of security children and adolescents experience in their close
relationships. Referring to Bowlby’s (1969, 1973, 1980) "Attachment Theory," Moretti, et al. (2004) suggest children growing up with a caregiver who is responsive to their needs, provides a safe environment, remains physically close and attentive are more likely to develop prosocial skills, view relationships as positive, and recognize their own self-worth. Denied this sense of security, children are instilled with a fear of abandonment, uncertainty and experience feelings of rejection, and disengagement. Inwardly, insecurely attached children become hyper-vigilant looking for signs of abandonment, intensely anxious, angry, and harbor low self-esteem. Outwardly, they try to coerce the attention and engagement of parents, friends, and peers through “heightened expressions of need which may include, but are not limited to, extreme anger, threats, and acts of aggression and violence” (p. 46).

The Rejection sensitivity model (Downey et al. 2004), suggests a history of rejection creates a defensive response in people to anticipated or perceived rejection triggering hostile behavior, and a need for revenge or retaliation. Ultimately, these behaviors may contribute to the end of the relationship. Brooks, Whiteman and Finch (1993), cited by Pepler and Craig (2005), believe that attachment and rejection issues are more relevant to female aggression than male. Moretti et al. (2004) interviewed 105 male and 65 female adolescents with severe behavioral problems and found 40 percent of the girls and only 15 percent of the boys were “preoccupied” with attachment issues (p. 50). Researchers
(Moretti et al, 2004; Downey et al. 2005) caution that girls might engage in more antisocial, risky or delinquent behaviors in an attempt to forestall rejection and maintain an important relationship. Consequently, these girls will be at more risk for injury, criminal activity, substance abuse, or victimization.

Within the school environment the aggressive girl is exposed to a number of risk factors. Research suggests strong links between learning difficulties, the display of aggressive behaviors (Artz, 1998, 2004; Pepler & Sedighdeilami, 1998; Pepler & Craig, 2005; Stack et al. 2005) and delinquency (Chesney-Lind, 1998). Pepler and Sedighdeilami (1998) reported aggressive girls experienced cognitive deficiencies that made school work difficult and accounted for higher levels of frustration, reduced self-esteem and self-confidence, and increased tendency to be disruptive in class. Academic difficulties are made worse with behavior problems including restlessness, lack of motivation, truancy, and fighting (Levene et al., 2005, Pepler & Craig, 2005). Parental interviews reveal aggressive girls participating in arguments or disagreements with teachers and administrators resulting in suspensions or expulsion (Artz, 1998, 2004; Levene et al., 2005). Stack et al. found about 40 percent of boys and girls identified as aggressive are likely to fail a grade or receive support through the special education department (p. 261). Citing the results of the *Ontario Child Health Study*, Pepler and Craig (2005) found that elementary girls received support more than their male counterparts, by high school however, girls were receiving just 7 percent of the support
compared to 32 percent of the boys (p. 20-21). The lack of school intervention could explain why more physically aggressive female students drop out of high school (Pulkkinen, 1992). Pepler and Craig (2005) propose that the aggressive girls' lack of academic success coupled with behavioral difficulties will increase the chance of rejection and marginalization within the school setting.

**Alternative Education Programs**

Based on her interviews with six key 'informants’, Artz (1998) determined that most of the violence the girls participated in or were subjected to took place at school, “in school corridors, school yards, on the way to and from school, in front of the corner stores, and in the shopping malls closest to the schools (p. 189). Results from the *Survey of Student Life* (Artz, 1998) reinforces the view of the school as a potentially violent or dangerous place with 48.9 percent of the students indicating that they felt less safe in junior high school then in elementary school (p.32). With the perception of an education system where children and adolescents feel afraid, policy makers and educators counter by creating strict ‘Code of Conduct’ and other punitive measures based on a policy of zero tolerance (Lloyd, 2001; Aron & Zweig, 2003). The aggressive acts, peer conflicts, and disruptive behaviors typically associated with at-risk adolescent girls, and boys for that matter, would typically contravene many of these disciplinary policies. When behaviors are recurrent and difficult to manage in a traditional school environment, placement in an alternative educational program may
be considered when previous attempts - suspensions, parental meetings, and district level interventions – prove to be ineffective at modifying the student’s behavior.

According to the *Survey of Alternative Schools and Programs* sponsored by the National Center on Educational Statistics, there were 10,900 public alternative programs for at-risk students in the United States, with an enrollment of 612,000 children and adolescents during the 2000-2001 school year (Kleiner et al., 2002). Lange & Slettan (2002) suggest that there were actually over 20,000 alternative options throughout the country.

In their study of alternative educational strategies, Tobin and Sprague (2000) defined alternative education as “nontraditional educational services, ranging from separate schools for students who have been expelled to unique classes offered in a general education school building” (p. 178). Lehr and Lange (2003), citing the Department of Education of the United States, define an alternative educational school as “a public elementary/secondary school that addresses needs of students that typically cannot be met in a regular school, provides nontraditional education, serves as an adjunct to a regular school, or falls outside the categories of regular, special education or vocational education” (p. 59). Others researchers (Lange & Slettan, 2002; Aron & Zweig, 2003; Hosley, 2003; Foley & Pang, 2006) classify alternative programs according to Raywid’s (1994) three categories:
Type I Program – Academic

- Students choose to attend.
- Innovative with instructional strategies that attract, engage, and motivate students.
- Focus on credits necessary for graduation.
- Flexibility with self-paced curriculum
- Change the school program and environment in order to alter the student’s behavior patterns, performance, and achievement.
- Small school, small staff, reduced enrollment providing opportunity for 1:1 instruction.
- Examples include magnet schools, charter schools, career and job oriented schools, drop-out recovery programs, after-hours schools, and storefront instructional programs.

Type II Program – Discipline/’Last Chance’

- Highly structured and punitive.
- Student placement determined by district or school as a ‘last chance’ before expulsion.
- Based on behavior modification or remediation.
- Limited curriculum focusing on essentials (e.g. Math, English, Science and Social Studies).
- Aim is to segregate, contain, and reform disruptive students.
- Short-term placement with option to return to traditional school once behavioral expectations are met.

Type III Program – Therapeutic

- Students need academic or social/emotional remediation or rehabilitation.
- Short-term therapeutic setting
• Target specific student population (e.g. substance abuse) and provide required services (e.g. counseling, social services, and/or academic remediation)
• Student chooses to attend or not to participate.
• Focus is on fixing the student (p. 27).

Aron and Zweig (2003) equate the Type I program with what has traditionally been created by the public education system for students considered at-risk. Several researchers (Lange & Slettan, 2002; Aron & Zweig, 2003; Hosley, 2003), including Raywid (1994), acknowledge the trend of some school districts to design programs by blending components of each category, creating a ‘hybrid’ that is better able to respond to the diverse needs of the student population.

In the United States, alternative programs were available to secondary students in 88 to 92 percent of the districts, at the middle school level in 46 to 67 percent of the districts, and to elementary age students in 10 to 21 percent of the districts (Kleiner et al., 2002). Hosley (2003) discovered a 3:7 gender split between females and males participation in a study of alternative programs in Pennsylvania, while Foley and Pang (2006) found 40 percent of the students enrolled in Illinois programs were girls. Ethnic composition was predominately Caucasian students (62.86%) followed by African American (31.2%), Hispanic (15 %), Native American (3.68%) and Asian (1.64 %) (Foley & Pang, 2006).

Studies indicate that alternative schools are designed for students who are at-risk of school failure (Raywid, 1994; Lange &
Sletten, 2002; Lehr & Lange, 2003). The phrase “at-risk of school failure” can apply to a wide range of students including “students with disabilities, students from minority backgrounds, those who are pregnant or parenting, those who have been suspended or expelled, and those who are most disenfranchised from the traditional high school experience” (Lehr & Lange, 2003, p. 60). Day (1996), cited in Tobin and Sprague (2000), suggests that the counselling and support services offered in alternative programs can assist children and adolescents chronically abused or victimized by peers in learning to be more assertive. Common reasons for placement in an alternative educational program include dropping out or risk of dropping out, behavioral and antisocial difficulties, academic challenges, attendance and truancy issues, violence, alcohol and drug abuse, weapons possession, and mental health issues (Tobin & Sprague, 2000; Kleiner, Porch, Farris, 2002; Lange & Slettan, 2002; Foley & Pang, 2006).

School districts that submitted information to NCES for the Survey of Alternative Schools and Programs indicated that about three-quarters of the districts allow students to return to regular schools, a quarter allow some students the opportunity to return but not all, and finally one percent deny all students the chance to transfer back to their original school (Kleiner et al., 2002). Students have to demonstrate improved behavior and attitude, along with better grades, improved basic skills (reading, writing, and math), and more motivation in order to qualify for this option. Students with a history of attendance issues or truancy have to show
consistent school participation before traditional school enrollment would be considered (Aron & Zweig, 2003).

Forced placement in an alternative program has become common place as schools expel, transfer or refer difficult or disruptive students (Tobin & Sprague, 2000; Aron & Zweig, 2003; Lehr & Lang, 2003). For some students, however, the alternative school is seen as an attractive alternative to the traditional educational system. A volunteer move to an alternative class can break the cycle of poor school performance, isolation, and learning difficulties that many students experience. Lehr and Lange (2003) suggest that student’s motivation, learning outcomes, and academic success in the program will be affected by the placement method. Many school districts are claiming that enrollment in alternative programs exceeds capacity, requiring students to go on a waiting list until there is an opening (Kleiner et al., 2002). Tobin and Sprague (2000) and Aron and Zweig (2003) maintain the increased demands on alternative options arises from zero tolerance policies, increasing school violence, more students experiencing academic difficulties, changing governmental education policies, and a better understanding of violent or antisocial behaviors.

Tobin & Sprague (2000) identified positive program characteristics effective in responding to the needs of students as a low ratio of students to teacher, a highly structured classroom, positive reinforcement of appropriate behavior, the creation of a trusting, accepting, and supportive relationship with an adult in the
school, functional behavioral assessments, instruction in anger management, problem solving and social skills, conflict resolution, effective academic instruction, and parental involvement. Raywid (1994) suggests adding an engaging curriculum that compels students to learn and a leadership structure that enjoys a certain level of autonomy encouraging collaboration between staff and students. While some of these components, such as highly structured classroom and effective academic instruction, are present in existing traditional schools, other characteristics, including low student-teacher ratio, are specific to alternative programs.

Castleberry and Enger’s (1998) interviews with 173 alternative education students, emphasize similar characteristics as those identified in the studies. The opportunity to work one-to-one with a teacher was used to explain student success in the alternative programs. Teachers were described as good listeners, helpful, caring and respectful. The student-teacher relationship fostered a “family atmosphere” (p. 108). The small class or program size afforded the students an opportunity to maintain contact with teachers, develop a sense of community, improve their concentration and establish relationships with peers and adults. The curriculum was self-paced and students were able to get help when necessary. Student statements confirmed that the program expectations were clear and that program staff “expected the best from them” (p. 109).
Studies of alternative education programs stress the importance of working collaboratively with community resources when responding to the academic, social/emotional, health and career needs of each student. (Aron & Zweig, 2003; Foley & Pang, 2006) According to the NCES Survey of Public Alternative School Programs (Kleiner et al., 2002) over 72 percent of the alternative programs utilized what is typically considered a ‘wraparound’ approach by working collaboratively with five or more community resources. The involvement of community agencies such as the juvenile justice system, mental health resources, law enforcement, child protection services, drug and alcohol rehabilitation programs, crisis intervention centers, career planning and placement services, and hospitals is seen as critical to the success of any alternative educational option. Carney and Buttell (2003), cited by Foley and Pang (2006), noted that students receiving this kind of comprehensive approach showed improved school attendance, reduced suspensions, fewer assaults and violent behaviors, less police involvement, improved employment opportunities, and less running away from home.

Aron and Zweig (2003) suggest that many alternative education programs are unfairly stigmatized as a “dumping grounds for ‘problem’ youth, and yet because they represent a departure from the standard approach to schooling, many alternative education programs are known for their innovation and creativity” (p. 20). Alternative programs frequently incorporate educational research and youth development theory into practice.
Moreover, the small size and reduced student population allow for the adaptation of material or curriculum in order to address the needs of all the students independent of race, academic ability, age or gender. Raywid (1994) believes that many reforms and practices that have been adopted by traditional schools including theme based instruction, school community, engaging learners, empowering staff, and student/teacher choice, found their origin in the creative and progressive classrooms of alternative educational programs.

With such diverse student population, program designs, and instructional approaches, researchers have found it difficult to ascertain how effective alternative programs are in meeting the needs of the students (Van Acker & Talbott, 1999; Tobin & Sprague, 2000; Lange & Sletten, 2002). Aron and Zweig’s (2003) review of alternative education, suggest that alternative schools are rarely studied on a national scale, with a few schools or programs being investigated at the state level. Moreover, these examinations tend to focus on three main areas: the benefits of flexibility and choice; changes in student self-esteem, confidence and sense of belonging; and finally, demonstrated academic achievement. The first two areas show positive results, but academic achievement is mixed. While there has been a reduction of students dropping out, educational assessments “show significantly less mastery in reading and math than scores for the students” (Aron & Zweig, 2003, p.24) not attending an alternative program.
In their review of educational programs for at-risk students, McEvoy and Welker (2000) criticize school-based intervention programs for lacking a comprehensive plan, detailing effective methods and interventions in an attempt to improve the academic and prosocial behaviors of students considered violent, aggressive, and anti-social. Many schools have addressed student violence and aggression by using punitive disciplinary policies, improved security measure (video cameras, metal detectors), or “by implementing general or universal programs (targeting all students) using off-the-shelf curriculum to reduce anger and teach social skills” (Van Acher & Talbott, 1999, p. 13). According to Van Acker and Talbott (1999), these approaches have not been particularly effective in reducing levels of aggression or violence in schools. Without a specific plan grounded on research, program evaluations, and sound educational theory, “program elements may be included in a seemingly random and inconsistent manner” (McEvoy & Welker, 2000, p.137). The use of “conflict resolution” programs in response to increasing levels of violence is cited as an example of improper programming. While “conflict resolution” strategies are effective in resolving minor conflicts between students, it is inappropriate when used to resolve more serious incidents of bullying and gang violence. Bullying and gang violence “involve complex group dynamics, intentions to do harm, and the targeting of victims who do not have the power to resist or negotiate” making conflict resolution techniques dependent on equality, effective communication, and willingness to compromise ineffective and potentially dangerous.
Furthermore, Van Acker and Talbott (1999) propose that many programs designed to address a specific issue such as anger management, social skills development, conflict resolution, and problem-solving strategies are short-term measures. They ignore the relationship between the development of a certain behavior and influence of various risk factors including family, peer, school, and community. Evaluation of these interventions are based on immediate and short-term measures of behavioral or cognitive change in order to present as effective, but fail to acknowledge that “temporary changes in knowledge or attitude do not necessarily translate into enduring changes in behavior” (p. 137).

**Gender-Specific Programming**

Unfortunately, at this time, there is a paucity of research on girl-specific educational programs. A small population of aggressive and antisocial girls combined with the relatively recent research focus of female aggressive behaviors limits the availability of relevant studies (Woolard, 2004). After a comprehensive evaluation of 443 programs, Lipsey (1992), cited by Chesney-Lind (2001), identified 2.3 percent of the delinquency programs responded to the needs of girls exclusively and 5.9 percent served mainly girls (p. 44). Orom (1995), cited by Artz (1998), investigated 50 violence prevention programs offered in communities and schools and found seven (five adult oriented and two children or adolescent focused) that dealt with violence against females. “Only one of the seven offered any additional programming specifically designed for
violent females” (p.197). Assessment of such programming almost entirely considers the effectiveness from the perspective of the ability to meet the needs of boys (Pepler et al. 2004). Most programs are based on development models for boys’ aggressive behaviors and are simply expanded to incorporate female participants earning a reclassification to “gender neutral” (Artz, 1998; Chesney-Lind, 1998; Patton & Morgan, 2002; Antonishake, Reppucci, & Mulford, 2004; Pepler et al., 2004). Prothrow-Stith & Spivak (2005) state that relying on “strategies used for boys is not the answer, as girls have different needs, roles models, pressures, and view of the world. Parents, teachers, and others can learn from their experience with boys but must always place these lessons into the context of the social and cognitive world of girls” (p. 122).

Sprague (2003) identifies three types of female specific programming that appear throughout the literature between 1994 and 2002– school-based programs, programs that are separate from schools but occur during the regular academic year, and finally interventions connected to summer programs. A survey of various program options made Sprague (2003) conclude “that none of the programs appears to represent systematic efforts on the part of a school or school system to engage in meaningful efforts to address the problems of girls” (p. 182). Program themes or focuses included academic achievement, mentoring, building self-esteem, reading clubs, sexual harassment, teaching proper etiquette, modern dance class, and outdoor recreational experiences. One intervention involved a school counselor reading sections from the
book *Reviving Ophelia* (Pipher, 1994) and discussing relevant issues with the female participants. None of the programs included any qualitative data related to effectiveness and most were considered “one time efforts conducted mainly for the purpose of research, rather than sustained reform initiatives” (p. 179).

Antonishake et al. (2004) suggest that it is difficult to assess the effectiveness of the few co-educational intervention programs available because the female enrolment is often too small, the girls are not included as part of the data or they are simply blended with the male participants without any gender distinction. In a study of *The Coping Power Program*, an intervention program for aggressive preadolescents, Lochman and Wells (2004) justified the exclusion of female participation because of insufficient funding and more surprisingly “previous research had not indicated that aggressive behavior predicted the risk of substance use as well for girls as for boys” (p.572). This latter statement seems contradictory to much of the research showing a correlation between female aggression and increased levels of substance abuse (Moffit et al., 2002; Underwood, 2003; Moretti et al., 2004; Pepler & Craig, 2005). Chesney-Lind (2001) is critical of many female oriented interventions because of the tendency to focus on a single issue, often substance abuse, or sexual abuse, teen pregnancy and parenthood. Moreover, many programs concentrate on girls experiencing trouble at school, in their family or in the community, neglecting a more proactive approach that is preventative in nature.
One of the most relevant qualitative studies was completed by the EarlsCourt Child and Family Centre (ECFC), a treatment agency for aggressive and antisocial children under the age of 12 and their families (Pepler et al., 2004; Levene, Madsen, & Pepler, 2005). Initial attempts by the ECFC staff to respond to increasing levels of girl aggression and antisocial behaviour involved the use of a “gender neutral” treatment program called the Outreach Project, which included boys and girls simultaneously. Pepler et al. (2005) acknowledge that this approach garnered undesirable outcomes and described “the girls who attended the groups as typically subdued and unobtrusive during group sessions, or, in some instances, they appeared to be imitating the boys’ more direct and physical forms of aggression” (p. 140). Consequently, the ECFC created a gender-specific program, called the EarlsCourt Girl Connection (EGC), focusing on “three primary domains in the lives of young girls: individual behaviours, primary relationship contexts (e.g., family, parent-child), and secondary contexts (e.g., peers, school, community) (p. 133). The EGC program addressed many of the risk factors researchers have identified as contributing to the development of aggressive and antisocial behaviors, including attachment issues, misinterpretation of social situations and cues, the use of physical and social aggression, and ineffective parenting (Pepler et al., 2004; Levene et al., 2005).

The study described by Pepler et al. (2004) and Levene et al. (2005) uses data collected over a four year period. Information was collected from the girls and their families at the time of admission
to the program with follow-up sessions at 6 months and 12 months. Many of the girls participating in the EGC program showed behaviors typically associated with conduct disorder, delinquency, criminal activity, learning difficulties, and were “rated as high on interrupting, arguing with adults, not listening, being defiant, having temper tantrums, being angry and cruel, bullying, and being mean to others” (Pepler et al., 2004, p. 136).

Pepler et al. (2004), report that parent’s ratings of the participants showed significant reduction in many of externalized behaviors including temper tantrums, irritability, angry and resentful outbursts, defiance, arguing, and crankiness. Increased use of prosocial behaviors resulted in long-term improvements in the girls’ relationships with peers, parents, and siblings. Teachers enjoyed a positive change, but this was not salient beyond the first follow-up session. Except for a reduction in stealing outside of the home, the EGC program was not able to divert some of the older girls, 10 and 11 years old, from increasing their involvement in delinquent activities. Pepler et al. (2004), referring to the developmental trajectory of delinquent and antisocial behaviors proposed by Moffett et al (2001), suggest that the older girls were at the age of increasing delinquent behaviors and the EGC intervention was unable to prevent the emergence of these behaviors. There was more hope for the younger girls, 5 to 9 years old, by “intervening early in the behaviour problems and social contexts of these troubled girls, we might be able to divert them
from engaging in risky and delinquent opportunities that await
them as they approach adolescence” (p. 141).

The manual *How to Implement Oregon’s Guidelines for
Effective Gender-Specific Programming for Girls* (Patton and
Morgan, 2002) is one resource that incorporates researcher’s
recommendations regarding appropriate intervention and
prevention programs for girls between 10 and 19 years old
(Antonishake et al., 2004; Art, 2004; Geiger et al., 2004; Moretti,
2004; Xie et al. 2005). While this manual does not relate to a
specific program established in the state educational system, it
does provide a thorough and comprehensive ‘blueprint’ for the
design, administration, and evaluation of services that could be
created in schools, the juvenile justice system, by social services,
and community-based adolescent programs. Patton and Morgan
(2002) target girls specifically and stress the need for gender-
responsive programming because as “girls and boys mature, they
experience things differently, chart different pathways to problem
behaviors, and face different issues and challenges” (p. 9)

The manual is divided into two main sections –
Administration and Management of Gender Specific Programs and
Program Content – and address many of the concerns that
researchers are expressing about current adolescent female
programming including a narrow focus, inconsistent
implementation, limited or nonexistent data collection and program
design based on the traditional needs of boys (Antonishake et al.,
2004; Art, 2004; Geiger et al., 2004; Xie et al. 2005). To avoid such pitfalls, Patton and Morgan (2002) recommend the following:

**Administration and Management**
- Incorporate data collection methods into program design.
- Include girls in the design or redesign of program.
- Create policies that ensure access to appropriate services without gender or cultural bias,
- Identify measurable goals and outcomes that are meaningful to girls.

**Program Content**
- Create an environment for girls that is physically safe from violence, physical and sexual abuse, harassment, bullying, teasing, and stalking.
- Create an environment for girls that is emotionally safe.
- Create an environment that values females and acknowledges their achievements and contributions.
- Provide a holistic approach that responds to the needs of the whole girl within the context of her life, her relationships, social interactions, and the society in which she lives.
- Develop programs that embody an understanding of the significance of relationships and connections in the girl’s lives.
- Facilitate the establishment of significant relationships with caring adults through mentor programs.
- Develop self-esteem enhancement programs that teach girls to appreciate and respect themselves rather than rely on others for validation.
- Develop programs that address the sexual abuse, physical abuse, neglect, emotional/verbal abuse, trauma, domestic violence, and loss that many girls have faced.
- Develop programs that address physical health as well as sexual health.
• Develop programs that address emotional and mental health, including eating disorders, body image, addiction, depression, and self-care (Morgan & Patton, 2002, p. 58 – 64).

While the lack of literature would suggest that Oregon has not successfully implemented all or some of the recommendations made in this manual, it certainly provides a base from which to start.
CHAPTER 3

ANALYSIS, INTERPRETATION, AND DISCUSSION OF THE FINDINGS

The original objective for this literature review was to determine whether or not current alternative educational programs were responding to the needs of highly aggressive girls. Perhaps a more appropriate subject would have been how MIGHT alternative educational programs respond to the needs of highly aggressive girls? The relevant information available is largely theoretical and relies on the recommendations or the ‘best guess’ of researchers who are hopeful that the information and theories that have been suggested are accurate and precise. While there is a growing number of studies related to indirect/relational/social aggression, aggression differences between the genders, development of antisocial and delinquent behaviors, and risk factors associated with the aggressive female adolescent further understanding of the aggressive girl is required. Moreover, there remains a paucity of qualitative and quantitative studies on alternative educational programs, at-risk student’s enrollment and alternative program
efficiency (Moretti, et al. 2004). Consequently, it is not possible at this time to provide a definitive ‘yes’ or ‘no’ answer to the original question posed in this study.

At best it is possible to identify some key areas such as the building of student self-esteem and the development of supportive student-teacher relationships, where alternative programs are responding to some student needs, independent of gender. Although studies of alternative educational programs suggest marginal to nonexistent academic improvements for students (Lange & Sletten, 2002; Aron & Zweig, 2003), there appears to be significant changes in student’s self-esteem, self-regulation, and self-confidence (Lange & Sletten, 2002; Aron & Zweig, 2003).

Self-reporting questionnaires determined that alternative educational students also feel a greater sense of belonging and self-worth compared earlier experiences of rejection and marginalization in the traditional school (Lange & Sletten, 2002). One of the reasons cited for this change is the relationships students have with teaching staff at alternative programs. The smaller size and low student-teacher ratio of alternative schools provide the opportunity to establish positive, non-punitive, non-judgmental, mentoring relationships with adults (McEvoy & Welker, 2000; Artz, 2005). Richards (1999) refers to this relationship as a ‘pastoral role’ where the adult offers support, guidance and advocacy whenever necessary. According to Patton and Morgan (2002) this kind of healthy relationship is “fundamental to a program’s effectiveness” (p. 39). Researchers emphasize
relationships as a salient factor in behavioral change and effective intervention (McEvoy & Welker, 2000; Underwood, 2003; Moretti, et al., 2004; Pepler, Madsen, Webster, & Leene, 2005). Clearly, this message has been heard by the staff of alternative educational programs and has become a vital component of their success.

More Research is Needed.

While male aggression has been the subject of study for well over 40 years, it has been only recently that researchers and clinicians have turned their attention to female aggression (Lagerspetz et al., 1988; Cairns, et al.,1989; Bjorkqvist & Niemela, 1992; Crick & Grotpreter, 1995; Galen & Underwood, 1997; Owens, et al., 2000). Using theories based on the observations, studies, and experiences of men (Underwood, et al. 2001), researchers have worked primarily on understanding the “mechanisms and processes associated with the development of aggression in girls” (Craig, 2005, p. 217). The majority of these studies have focused on between-group differences (males verses females), at one point in time (aggressive behaviors at a specific age), and for a general index of aggression (indirect aggression). More research is necessary for enhanced and thorough understanding of female aggression in a more multifaceted way. (Moretti et al., 2004) However, additional studies and longitudinal investigations focusing on girls’ physical aggression (Underwood, 2003), antecedents of aggression (Gerger et al., 2004), multiple developmental trajectories (Moretti et al., 2004), life course pattern for aggressive
girls (Stack et al., 2005), and the effectiveness of treatment programs addressing aggressive behaviors in girls (Craig, 2005) are required for a more thorough understanding of female aggression.

Geiger et al. (2004) acknowledges that the study of female aggression is in the early stages and the reliance on current information and theories must be utilized with caution. Underwood (2004) is equally guarded of the research, by suggesting that conclusions about female aggression have been made “in the absence of theoretical frameworks for integrating and understanding results” (p.240). Additionally, she offers that “gender specific interventions are in the early stages of development. Experts are unsure as to how to help the minority of women who behave violently, thus their behavior and its heart-wrenching consequences will likely continue” (p. 240).

**Interventions.**

While educators wait for studies to augment and refine the understanding of the developmental pathways of aggressive and antisocial young girls, there is a growing need to cautiously proceed with implementation of programming. Early intervention would be the must useful in diverting the development trajectory of aggression (Levene et al., 2004). According to Stack et al. (2005) indicators of future maladaptive behaviors as well as social, academic, and health issues are noticeable as early as Grade 1 (p. 277). The importance of early intervention is further stressed by suggesting that “by the time children reach elementary school with
patterns of aggression, social withdrawal, and poor cognitive and language skills, it may be too late to prevent academic and social problems” (p.277) A comprehensive intervention plan involving the home, school, and community services, however, can reduce the impact of these risk factors and enhance the likelihood of normative development (Antonishake et al., 2004).

Another way of responding to the call for appropriate intervention strategies is to adapt existing well-designed programs on anger management, relationships building, bullying and physical aggression/violence (Underwood, 2003; Geiger, 2004). Moretti et al. (2004) believes educators can meet the needs of the aggressive girl by combining the lessons learnt from boys’ interventions with the distinctive needs, experiences, and issues of girls. Owens, Slee and Shute (2001), cited in Underwood (2003), also suggested such as approach with programs like the no blame approach (Maines & Robinson, 1992), the method of shared concern (Pikas, 1989), peer counseling (Cowie & Sharp, 1996), and peer mediation (p.219).

Levene et al. (2005) and Pepler et al. (2004) successfully adapted a co-educational aggressive treatment program offered at the Earls court Child and Family center into a gender-specific program referred to as the Earls court Girl Connection. Many of these programs are readily accessible and are relatively inexpensive. Ultimately, the ability of these modified interventions to fit the unique needs of girls will have to be rigorously evaluated to determine their effectiveness.
Another possible response to the increasing levels of female aggression is a gender-specific alternative program similar to the one described in Oregon’s Guidelines for Effective Gender-Specific Programming for Girls (Patton & Morgan, 2002). Researchers (Chesney-Lind, 1998; Patton & Morgan, 2002; Antonishake et al., 2004; Pepler et al., 2004) have acknowledged that the majority of intervention programs rely on strategies based on a male model. Patton and Morgan (2002) suggest that boys receive more services because they outnumbered the girls and their behaviors are more overt. Girls’ aggression is covert in nature and the maladaptive behavior associated with their aggression is internalized as depression, anxiety, and mental health issues. However, boys or ‘gender neutral’ programs are ineffective, because they deal “with a symptom rather than a cause, missing the holistic picture of a young woman within her social context” (p. 13). Antonishake et al. (2004) and Pepler et al. (2004) both cite examples of girls becoming more aggressive and deviant in their behaviors after participating in a ‘gender neutral’ program. Moreover, according to Chesney-Lind (1998) these interventions are not offered to girls at the right age. The American Association for University Women (1992), cited by Chesney-Lind (1998), reports only 8 percent of programs were available to girls between the ages of 9 and 15, “the crucial determining years for adolescence, and years when girls’ self-esteem plummets” (p. 7). Consequently, Patton and Morgan (2002) suggest that a gender-responsive program can highlight the
specific needs of girls and address the various risk factors that impact the girls’ lives.

The belief that girls rely more on covert forms of aggression compared to their male counterparts, is one of the main justifications for a gender-specific intervention (Levene et al., 2004). A reduction in covert aggression requires different approaches and knowledge then what is typically used to intervene with physical or verbal aggression (Owens, et al., 2000; Underwood, 2003). However, recent studies finding boys using equal or greater levels of indirect/relational/social aggression than girls (Salmivalli & Kaukiainen, 2004; Merrell et al., 2006; Peets & Kikas, 2006) brings this argument for a gender-specific intervention into question. These results would suggest a need to include strategies for the reduction of covert aggression in any programming, independent of gender. Moreover, according to Kempf-Leonard and Semple (2000), cited by Woolard (2004), program aspects such as providing a safe and therapeutic environment, fostering healthy personal development, training opportunities for independent living, and ‘wraparound’ community based support would be equally beneficial to boys as well as girls.

Ultimately, the reasoning behind a gender-responsive program relates to the risk factors that are influencing the developmental trajectory of aggressive and antisocial behaviors. Researchers appear conflicted over whether or not boys and girls are affected by the same risk factors (Moffitt et al., 2001; Odgers & Moretti, 2002; Odgers et al., 2004). Most researchers advocating
for a gender-specific program acknowledge that girls have distinct challenges including depression, mental health issues, eating disorders, violence and abuse, and prostitution (Chesney-Lind, 1998, 2001; Patton & Morgan, 2002; Antonishake, et al., 2004; Downey et al., 2004; Moretti, et al., 2004; Xie et al., 2005) that must be considered when designing and implementing an intervention program. Artz (2005) provides further strength to the girls specific programming by indicating that it has been her experience that “girls – especially those who are encouraged to participate in designing and implementing violence prevention programming – are far more receptive to making changes in their behavior than boys” (p. 156)

**Gender-Specific Recommendations.**

Using information and theories gleaned from the study of delinquent, antisocial female behavior, researchers suggest the following components in order to effectively address the issue of girls’ aggression:

- Deconstruct existing stereotypes (Artz, 2005).
- Engage girls in socially acceptable activities such as sports so they will not rely on forms of aggression as entertainment (Underwood, 2003; Owens et al. 2000)
- Target risky sexual activity through increased knowledge of health, STDs, and safe sexual practices (Pepler et al., 2004; Craig, 2005; Leve & Chamberlain, 2005).
- Development healthy relationships with same sex peers (Craig, 2005)
- Academic, social, and health supports to ensure school completion and prevent teen pregnancy (Stack, et al. 2004)
• Mentoring program to model prosocial behaviors (Leve & Chamberlain, 2005).
• Separate intervention for aggressors (develop self-control strategies) and for victims (self-worth and assertiveness skills) (Underwood, 2003; Geiger et al., 2004).
• Facilitate opportunities for cooperative learning (Underwood, 2003).
• Connect student with nondelinquent peers to reduce likelihood of participation in risky behaviors (Leve & Chamberlain, 2005).
• Reduce competition and the importance of status and dominance within the social network (Xie et al., 2005).
• Specific attention given to the caregiver-daughter relationship (Pepler et al., 2004).
• Rely on a ‘wraparound’ approach of support including home, school, and community services. Avoid short-term methods and advocate for ongoing support throughout developmental stages (Antonishake et al., 2004).
• Focus on gender-specific risk factors including abuse, depression, and anxiety (Chesney-Lind, 1998; Artz, 2005).
• Include social problem solving skills and foster social inclusion (Geiger et al., 2004).
• Interventions must be gender, developmental and culturally sensitive (Chesney-Lind, 1998; Xie et al., 2005).
• Use of peer mediation or peer counselling (Owens et al., 2000).
• Include a violence prevention component that focusing on male-female as well as female-female violence (Artz, 1998).
• Include parenting training component (Artz, 1998; Chesney-Lind, 1998, 2001; Underwood, 2003; Pepler et al., 2004; Levene et al., 2005).
• Encourage girls to use gossip halting strategies (Underwood, 2003).
• Create an environment that promotes the building of individual competencies (Leve & Chamberlain, 2005).
Challenges for the Education System

Program implementation that includes some or all of these recommendations will force the school system to face a number of challenges. Some of these hurdles include program cost, evaluation methods, and a lack of confidence in the ability of the school to address female aggression.

One of the first issues that must be considered is cost, especially if a comprehensive intervention is being considered. The creation of a program for a few select students or small at-risk population is very expensive (Geiger et al., 2004), considering most government financing is based on the number of students enrolled and the number of students designated with learning, health, or behavioral issues (BC Ministry of Education) the limited enrollment of an alternative program might not be cost effective. In deciding how money is spent, school districts are forced to prioritize the needs of the students, the schools, and the community with the program cost (Geiger et al., 2004). Frequently, schools try to offer an array of short-term intervention programs including substance abuse, peer medication, and anger management and have few resources left for more long-term alternative options. Unless districts recognize girls’ aggression as a priority, the cost of creating an alternative program for aggressive and antisocial girls will be too expensive and unrealistic. Woolard (2004), highlights this fact by suggesting “we must hope for the worst, that larger numbers of females enter the system, before we can argue for the best –
programming and treatment options that meet their needs” (p.234).

As a result of this study, it is apparent that alternative educational programs need to adopt methods of rigorous evaluation in order to stem increasing levels of criticism for nonexistent or inefficient evaluation methodology (Lehr & Lange, 2003). With increasing enrollment (Aron & Zweig, 2003), programs filled to capacity (Kleiner, et al. 2002) and increased calls for accountability it would be beneficial for alternative schools to establish a consistent practice of evaluating their effectiveness thereby justifying their existence (Lehr & Lange, 2003). The benefit of improved assessment methodology include increased access to program funding, as well as improving existing programming by determining intervention effectiveness. The ability to evaluate student progress will facilitate program adjustments and restructuring as needed (McEvoy & Welker, 2000). According to Geiger et al. (2004), some instructional strategies or interventions appear to be reasonable and educationally sound on the surface, but are found to be ineffective and possibly even harmful once properly evaluated.

Lehr and Lange (2003) suggest that accurate evaluation of alternative education program require researchers, teachers, administrators, and district staff to determine what is to be measured. Traditionally, the variation in alternative schools, mix of students, and the diversity of program curriculum made empirical analysis of program effectiveness challenging and rarely provided
results that could be generalized throughout the educational field (Lange & Sletten, 2002; Lehr & Lange, 2003). Carruthers et al. (1999), cited by Lange and Sletten (2002), further criticized studies of alternative educational programs for using internal evaluators and concentrating on short-term outcomes ignoring any possible long-term results. The majority of program evaluations use anecdotal reports and comments from program staff, individual students and focus groups to determine the effectiveness of the program.

One of the largest huddles is formulating a universal definition of characteristics for program “effectiveness”. This is especially hard when referring to alternative education programs, where students with a variety of needs and issues are grouped together. Is program “effectiveness” determined by academic success; the number of students who consistently attend class and graduate from high school; or perhaps it is an aggressive adolescent female who used problem-solving skills to resolve a conflict? Lange and Sletten (2003) suggest that “while the ultimate outcome for any educational entity is to increase student achievement, these programs and schools may need to begin their assessment of effectiveness in areas other than academics and then move to a more typical approach to evaluation. To ignore nontraditional outcomes for alternative students may negate the positive outcomes that have emerged in the areas of increased satisfaction, self-esteem, and connection to school – those outcomes that may ultimately keep students in school” (p.28).
McEvoy and Welker (2000) state that the most effective programs have in place a way to monitor student’s academic and social progress in relation to program objectives and teachers who make educationally sound decisions based on successful interpret this data.

A possible framework cited by Lehr and Lange (2003) was generated by the National Center on Educational Outcomes and includes domains such as independence, physical health, social responsibility, academic functioning, as well as, personal and social development. Teachers in the alternative educational program would identify individual outcomes as well as societal expectations related to each domain and evaluate each student based on the targeted outcomes. This kind of assessment method allows for the flexibility enjoyed at the alternative educational level, for individualize monitoring and assessment, yet provides measurable outcomes.

Although Artz (1998) credits the school systems with being the “main agencies responsible for trying to address and modify the behavior of young people” (p. 199) one of the greatest barriers to the effective implementation of a program addressing female aggression will be the lack of confidence in the school’s ability to circumvent this behavior. While some of the girls interviewed by Artz (1998) continue to have faith in teacher and counselor intervention, others see teacher interventions as a “joke” (Owens et al., 2000, p. 81) that simply makes matters worse. Moreover, families feel the school system fail to respond appropriately to their
child’s learning and behavioral needs, creating a “sense of hopelessness about their ability to forestall a negative school trajectory” (Levene et al., 2004, p. 182).

Consequently, teachers and support staff working in the alternative programs will require specialized training to avoid further problems and win back the confidence of the students and parents. Teachers and other school authorities need to be aware of social groupings and the social dynamics within the building (Merrell et al., 2006). In addition, they need to be better able to identify and respond to the subtle negative exchanges associated with covert aggression that frequently goes unnoticed and receives no intervention (Owens, et al., 2000). Van Acher and Talbott (1999) suggest teachers receive additional training on how to develop prosocial skills. Patton and Morgan (2002) included an extensive list of required study topics in the manual How to Implement Oregon’s Guidelines for Gender-Responsive Programming for Girls including knowledge of female development, drug and alcohol abuse, domestic violence, trauma, and loss.
CHAPTER 4

CONCLUSION

In conclusion, it is clear that the long-term impact of female aggressive behavior is just beginning to be understood. Contrary to long held stereotypes, there seems to be a realization that girls can be just as mean and aggressive as their male counterparts. The last twenty years have provided a plethora of studies investigating direct and indirect forms of aggression, behavior differences between the genders, and the life trajectories for aggressive girls. In addition, extensive consideration has been given to understanding risk factors that shape the development of problem behaviors in boys and girls. The negative dynamic factors, such as mental health issues, drug and alcohol abuse, victimization, poor parenting practices, and learning difficulties, lead to the formation of maladaptive disorders and a reliance on aggression as a way of controlling and manipulating the social environment. The presence or lack of protective processes, including parent education, healthy peer relationships, and a strong parent relationships, in the girls’
lives can decrease or increase the likelihood of involvement in risky activities and violence.

From an educational perspective, the aggressive and antisocial girls create special challenges associate with balancing their academic needs and their unique social/emotional needs. The schools first response is to work within the traditional education setting, however, if academic issues, behavioral problems, and social conflicts become too great, a referral to an alternative program will be considered. Ideally, the educational options will include a gender-responsive program that addresses the unique needs of aggressive girls; however, in most cases the best that school districts can offer is a gender neutral intervention that has incorporated the distinct needs of girls into the instructional approach. Independent of gender, these specialized programs offer all enrolled youths the benefit of a low student-teacher ratio, an individualized curriculum, and self paced learning. The effectiveness of these programs is currently in question as a lack of research provides little clue to the number of alternative programs available, the number of enrolled students, the academic and social/emotional outcomes of these interventions, or the appropriateness of the strategies in addressing student's need. With increasing demand for alternative educational options, there is a call for accountability that can only be satisfied with consistent and accurate assessment and evaluation of the existing programs.

Ultimately, alternative program effectiveness, especially for aggressive and antisocial girls, is contingent on the opportunity to
form a positive, supportive, and affective bond with the adults providing these interventions. And for those adults trying to establish a connectedness with these aggressive girls who are frequently challenging, frustrating, and appear to get worse before getting better, understanding their life history, the factors that have influenced their development, their motivation, goals and ambitions are critical aspects of the relationship. And as Underwood (2004) suggests “piecing together the rest of their story will not be easy, but it will be worthwhile, in honor of girls’ tremendous capabilities, not only as relationship partners and caregivers, but also as creators and inventors and stewards of our collective future” (p. 246).
REFERENCES


