Prevention Of Aggression

In Young Children

A Qualitative Review

Lynda Hare-Tucker

Salisbury State University

COMPLETION OF THESIS

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In Young Children: A Qualitative Review

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Adeline SC. Tryon, Ph.D.
Thesis Committee Chairperson

Natalie W. Hopson, Ph.D.
Thesis Committee Member

Ronald R. Culp
Thesis Committee Member

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Abstract

The undeniable prevalence of aggression in our society
has mandated that research efforts not only be directed at
developing intervention methods, but also at developing
preventative strategies. This comprehensive critical
literature review analyzes the factors found to be most
significant in young children's development of aggression as
they relate to the categories of child characteristics,
parental characteristics, and environmental characteristics.
The findings of recent research are summarized and
critiqued, and recommendations for the prevention of
aggression in young children are suggested.

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I. Introduction

Living in our society, one has little difficulty
observing the manifestations of aggression. Both national
and local newsbroadcasts provide us daily with examples of
this omnipresent problem. Researchers in all fields of
social science have explored different perspectives of this
global nemesis. As theorists strive to understand the
origins and development of aggression, applied researchers
strive to develop intervention strategies to correct or at
least control the expression of this behavior (e.g., Dollard
and Miller, 1939; Berkowitz, 1962; Bandura, 1973; and Dodge,
1984, just to name a few).

Reviewing the literature on intervention techniques for
aggression is a demanding endeavor, as much has been
published in this area. Emphasis has lately been placed on
early intervention among young adolescents and school aged
children, (Patterson, 1990; Dodge, 1980; Eron, 1971;
Griffin, 1989; etc.) as a means of preventing juvenile
delinquents who may become adult criminals, or even
sociopaths. More recently, the development of prevention
strategies, as opposed to intervention strategies, has
become the goal in an effort to better control the
expression of aggression in young children (Eron, Walder,

and Lefkowitz, 1971; Patterson, 1990). The shift in
emphasis from intervention to prevention appears to be
related to the finding that the longer the aggressive
behavior patterns persist, the more resistant they are to
change, quickly becoming fixed behavior patterns (Patterson,
1990).

Definitions: Aggression and Prevention

Aggression. In reviewing the literature, it is
extremely difficult to find one definition of aggression
with which all authors on the subject would agree.
Definitions differ as to the intent of the aggressor,
purpose of the aggressive act, topography, and results of
the act. Much of the variance can be accounted for by the
particular author's theoretical perspective. For instance,
those of a behavioral perspective would not include the
concept of intent as essential to a definition of
aggression, as it implies knowledge of another's thoughts
which strict behaviorists would not consider causal. On the
other hand, those of a psychodynamic orientation would not
acknowledge a distinction between hostile and instrumental
aggression, as a goal-attainment function of aggression does
not corroborate with their priority role of aggression being
the release of tension\frustration. Therefore, for this
report, aggression will be broadly defined to encompass both
apparent actions of frustration, as well as behavior
apparently motivated by reinforcement obtainment, such as
attention, and escape/avoidance of demands. In this manner,

the definition of aggression will not be a limiting factor
in the selection process of studies germane to the topic of
aggression.

Prevention. In order to appreciate the context from
which this paper is written, an understanding of a
distinction between prevention and intervention is
necessary. It could be argued that prevention is a
subcategory of intervention. However, prevention is better
defined as a strategy designed to intercede at the earliest
possible stage of the development of aggression (attempting
to prevent the initial occurrence of a problem), while
intervention is a strategy which can be implemented at any
stage of development (attempting to decrease the frequency,
duration, or intensity of a problem). It is from the
preventative mode that this paper is written.

Further, Winett (1983) writes that when discussing
prevention strategies, it is important to consider at what
level the strategy is aimed. He presents a two dimensional
model of micro versus macro levels of intervention
(referring to intervention in the broadest sense as it
includes prevention). Winett defines the micro level as
involving those interactions that occur at the family level,
while the macro level involves those interactions that occur
at the larger societal level. The emphasis in this paper is
on targeting those factors on the micro level that are
within the average citizen's realm of control; that is

factors that are accessible and malleable. This report advocates for the idea of "little deeds done are better than big deeds planned".

Purpose of Paper

This paper will examine prominent micro level prevention strategies, that aim to stop the initial development of aggressive disorders. My primary hypothesis is that current knowledge about the origins, development, and maintenance of aggression can be used to decrease the expression of aggression by targetting variables within our immediate control that can be manipulated (i.e., stimulus-cues, response consequences, and interpersonal interactions among parent-child relations, etc). To introduce my hypothesis, a brief summary of the theoretical perspectives on the origins of aggression is provided. Next, the major empirical variables which studies have shown to impact on the development of childhood aggression are reviewed, such as child, parental, and environmental characteristics. Third and finally, the implications are drawn from these studies concerning the development of prevention strategies.

II. Background: Review of the Theories Of Aggression

This overview addresses the four major stages of theory
development starting from the instinct theorists (e.g.,
Lorenz; Freud), to the drive theorists (Dollard and Miller),
to the behavioral social-learning theorists (e.g., Bandura),
and ending with the more cognitive social-learning theorists
(e.g., Dodge).

Instinct Theories

Lorenz and Freud, during the early quarter of the
1900's, were among the early explorers of the general topic
of aggression. They were both instinct theorists in that
they both accepted aggression as a fundamental and
inevitable constitutional fact. Additionally, they accepted
aggression as an energy force contained within a closed
system (i.e., one's body), rather than primarily dependent
on environmental instigation. From his years of work on the
evolution of aggression, Lorenz came to view aggression as a
biological fighting instinct inherent in all mankind. He
described humans as having basic blueprints for aggressive
behavior within their central nervous system. These
blueprints were species specific and specie-preserving and
through a sort of Darwinian survival-of-the-fittest
framework, they were genetically transmitted (Parke and
Slaby, 1983).

Although Freud had a similar biological perspective, his conceptualization of aggression was sufficiently different to warrant clarification. To consolidate his work in this area, he labeled the destructive\aggressive instinct "Thanatos", the opposite of the drive for sex and life labeled, "Libido". Freud believed that this innate drive to destroy, was what resulted in the inevitable expression of aggression, be it internally or externally directed. He postulated that through experiencing a cathartic effect (i.e., the indirect re-experience of feelings associated with a strong emotion, after which there is supposedly a decrease in tension) for aggression, one's level of intensity to behave aggressively could be temporarily appeased. In other words, the tension between the sex drive, Libido, and destruction drive, Thanatos, would pause at an equilibrium (Parke and Slaby, 1983).

However, several problems surrounded the early instinct theories. A primary problem concerned the actual application of any conclusions drawn from his work which was exclusively on animals. For example, the generalizability of Lorenz's work on animal aggression to the understanding of human aggression has been questioned (Parke and Slaby, 1983). Freud's results were based on case studies, which are a form of analyses not conducive to scientific replication for verification. A lack of empirical support has seriously challenged the usefulness of his theories as well. An additional problem arises from the deterministic

perspective of these instinct theorists which leaves little
hope for the possibility of modifying, much less preventing,
the development of aggressive disorders. Therefore, it soon
became apparent that the drive perspective alone was not
sufficient to explain the data, nor was it accurate in
predicting behavior.

Drive Theories

In 1939, Dollard and Miller developed the Frustration-
Aggression Hypothesis theory of aggression in an effort to
more fully explain aggression in terms of Learning Theory.
Like the instinct theorists, they postulated that there is a
basic drive to aggress, but that this drive is instigated by
external stimuli (rather than internal instincts) that cause
a sense of frustration in the individual when the obtainment
of a goal is blocked. In their original linear cause-effect
formula, Dollard and Miller argued that acts of aggression
were always the result of some form of frustration; and that
whenever one experienced frustration they would display some
sort of aggression. Frustration in this case is defined as
occurring whenever obtainment of a goal is blocked, and then
serves to initiate the aggressive drive (Parke and Slaby,
1983).

However, it was soon observed by other researchers that
frustration did not always produce aggression (e.g.,
Bandura, 1973; Dodge, 1980). For instance, in several cases
an individual can be deterred from aggressing when there is

a clear aversive consequence for the aggressive behavior (such as when a bully does not bother the smaller child directly in front of the teacher). In an attempt to address this discrepancy, Miller revised the first assumption of the hypothesis to allow aggression to be just one of several other possible consequences of experiencing a frustrating event (Berkowitz, 1962). Despite this revision, the data still did not consistently confirm the predictions of the Frustration-Aggression Hypothesis. Challenges concerning the second assumption of the model --that frustration is always the necessary antecedent to aggression, were presented. For example, why do people aggress in the absence of any identifiable frustration, such as when given orders from a supervisor in the military.

Attempting to fill in the gaps left by the drive theorists, Berkowitz (1962), in his Aggressive-Cue Hypothesis, advocated for a more classical conditioning perspective. Building on, and bridging the work of Dollard and Miller to support his own, Berkowitz modified their Frustration-Aggression Hypothesis to include the importance of necessary emotions in conjunction with situational/ stimulus cues for the demonstration of aggression. Berkowitz felt that the most salient aggressive cue was the frustrator, and that this cue was essential for the eventual expression of aggressive acts (Berkowitz, 1962).

Although some support for this theory can be found, so too can much disputing data. For instance, this theory does

not explain why at times a frustrated individual will
refrain from retaliating aggressively towards the original
instigator (i.e., parent) and instead is aggressive towards
an innocent bystander (i.e., pet, or sibling). This
significantly hinders the application of drive theories to
the modification of aggression. Additionally, the fact that
these theories employ abstract constructs, such as drives,
makes operationalization of significant variables for
measurement, very challenging. Some of these limitations
are better addressed in the following theories.

Behavioral Social-Learning Theories

Bandura (1971), offers a competing alternative,
vicarious or observational learning. From a social learning
perspective, he conceptualized the origins of aggression as
being founded in behavior patterns learned by young children
through reinforcement and observations of aggressive
behavior. Vicarious/observational learning involves
behavior acquisition through imitating the observed
behaviors of others in one's environment, such as siblings,
parents, or teachers, after witnessing the consequences that
followed their particular behaviors (Bandura, 1973). Parke
and Slaby (1983), outline the components involved in
Bandura's observational learning as attentional processes,
retention, mental rehearsal, motor-reproduction, and direct
feedback.

Within Bandura's framework, aggression is not internally inherent, but rather externally induced through the socialization of children in our culture. Our capitalistic culture frequently demonstrates instances when aggression is an effective means for obtaining certain goals, be they materialistic gains or the avoidance of demands. Bandura's modeling component predicts that the more aggressive behavior a child views, especially when this behavior is being reinforced, the more likely he is to demonstrate those aggressive behaviors (Bandura, 1973). The element of reinforcement is essential in Bandura's theory of how aggression is learned and maintained (Bandura, 1973). This reinforcement can be external and tangible, internal and self-administered, or experienced vicariously while others are reinforced for their actions (Parke and Slaby, 1983). The strong behavioral orientation as outline above, is certainly in contrast to previous theorists who had emphasized the drive or instinct theory perspective.

Eventually Bandura's work in this area evolved into a more cognitive-behavioral stage as he attempted to more fully explain the results he was getting from his own studies. In the early 1980's, Bandura began to include cognitive components such as self-regulatory cues, moving beyond just the vicarious learning concept. Bandura also began to acknowledge the importance of environmental/social influences, in order to better explain the acquisition and maintenance of aggression in children. Research in this

area has had significantly more documented success in

replicating Bandura's predicted findings than in supporting

predictions of the earlier instinct and drive theorists

(Eron, 1980, Eron, et al., 1971). In fact, Bandura's theory

and work are very viable today in the current field of the

psychology of aggression, and will be referred to more

throughout this paper as his research holds promise for the

goal of modifying the development of aggression in children.

Cognitive Social-Learning Theories

Most recently, and more cognitively, is the perspective

proposed by Dodge (1980) in his model of Social-Cognition

Aggression Theory. This model is based on the assumption

that aggressive children have a negative attribution bias

which they automatically apply when they attempt to

interpret situations and other people's behaviors. That is

to say, aggressive children have a tendency to ascribe

negative intent to actions or situations that are ambiguous

or possibly accidental. Similarity can be found between

Dodge's perspective and Bandura's work on self-regulation.

However, an important difference is that Bandura's social

learning theory would emphasize behavioral components like

poor social skills, where as Dodge's social cognitive theory

would emphasize cognitive components like faulty

interpretations as being the prerequisites to aggression.

Dodge (1980) outlines a sequential set of steps

involved in this interpretation process including the

important role of one's memory. The initial step involves
decoding--the attempt to process the information of one's
environment. The decoded information is next compared to
one's memory store regarding rules for interpretation and
then interpreted. Next, from one's response repertoire, a
response is selected after the consequences of each
behavioral choice are assessed. The last step Dodge
outlines is the execution of the chosen response. The
probability of choosing an aggressive response is increased,
according to Dodge and his work, if an individual interprets
a situation as hostile (Dodge, 1980; Dodge, Murphy, and
Buchsbaum, 1984). Dodge's work has many implications for
both prevention and intervention efforts and is addressed
again later in this report.

Theoretical Summary

From the theories reviewed thus far, the two that will
receive particular emphasis in this paper are the cognitive-
behavioral and social-learning theories. The application of
these theories to the understanding of aggression is useful
because under their framework, a child's aggressiveness is
considered a product of his developmental upbringing. This
view is conducive to the pursuit of strategies aimed at
modifying aggressive behavior through the manipulation of
variables within our immediate range of control. This is in
contrast to those theories that advocate that aggressiveness
is predetermined (i.e., instinct theories), as they do not

logically lend themselves to the idea that external influences can significantly alter (and possibly impede) the development of aggression.

Therefore, moving from a strictly theoretical framework, the remaining sections are comprised of the review of current empirical research conducted, operating from a cognitive-behavioral and social-learning perspective. In particular, the principal focus of this paper will be to critique the validity of the research that has been conducted on the early variables suspected of having an impact on a child's development of aggression, followed by a discussion of the implications such research has on the future development of prevention strategies targeting aggression in children.

III. Child Characteristics

Overview

To organize this paper, the studies reviewed on childhood aggression were divided into three categories: individual characteristics of the child; specific qualities of the parents; and certain variables of the environment. These three headings will be discussed with child and parental characteristics as variables considered at both the micro and macro level. Micro level again refers to child and parent characteristics operating within an individual family structure, like the parents' discipline techniques. Macro level again refers to the environmental variables within one's society and culture at large, like tolerance for aggression on television programs.

There are several child characteristics which are frequently evaluated in studies on the development of aggression. The four child factors found to be most consistent through the literature review which will be addressed here are the following: a constitutional risk factor (temperament), various skill deficits, overall social competence, and amount of identification with parents.

Constitutional Risk Factor

First, some research has suggested that biological or
constitutional factors may influence the probability of a
child developing an aggressive disorder (Thomas, Chess, and
Birch, 1971). One popular constitutional factor studied is
referred to as a child's initial temperament (Thomas, et al.
1971). It has been shown that a child's initial
temperament, either easy or difficult, impacts on the
development of his aggression. A difficult infant could
include any combination of sporadic sleeping, eating, and
eliminating habits. He generally has unpredictable moods
involving a lot of crying and difficulty in being appeased
or calmed. Also a difficult infant frequently has some sort
of health frailty. On the other hand, an easy infant is
generally one which has a predictable routine and is
relatively easy to satisfy and quiet (Garmezy, Masten, and
Tellegen, 1984; Olweus, 1980; Thomas, et al., 1971).

Studies indicate that children considered difficult
from birth are at risk for developing aggressive behavior
patterns, and being poorly accepted by their peers as they
enter the school system (Dodge, 1980; Dumas, in press;
Frankel and Simmons, 1985; and Olweus,1980). One
explanation for this finding is that a difficult infant is
demanding of his parents. In face of this high demand, some
parents may become overwhelmed, and so drained that they can
no longer effectively meet all of the needs of the difficult

infant. In fact, it is not a far leap to suggest that such
a situation could feasibly foster a rather neglectful and
apathetic or permissive parent as opposed to an involved and
motivated one (Olweus, 1980), as the child's difficultness
may become a noxious stimuli which the parent avoids in
order to seek more quiet, reinforcing activities.

Thus, the infant whose demands and needs are not being
met, is regularly frustrated and may eventually develop into
a frustrated child. Theoretically, it is likely that this
frustrated child is still difficult, and may place difficult
demands on others in new situations, such as peers and
teachers. For instance, as the difficult infant grows into
a child, he may not develop productive problem-solving
skills, nor appropriate social skills. Such a situation is
likely to hinder the development of effective peer-relations
(Dodge, 1980; Olweus, 1980; Dumas, in press). This
developmental trajectory is elaborated on in the very next
section on skills deficit.

Olweus (1980) conducted a study designed to test the
role of early familial and temperamental factors involved in
the development of an aggressive reaction pattern, in an
effort to find out what important factors are responsible
for the development of such a pattern. Data was collected
on 76 13-year-olds and 51 16-year-olds through peer ratings
of current aggressiveness levels, and from retrospective
interviews with all of the mothers, and most of the fathers.
Olweus (1980) found that mother's negativism, mother's

permissiveness of aggressive behavior, parent's use of power
assertive methods, and the child's temperament, all
contributed in an additive way to the development of an
aggressive reaction pattern. Olweus concluded that the
child's temperament had a relatively strong indirect effect
on his aggression via the mother's permissiveness for
aggression, (i.e., an impetuous child might in fact simply
exhaust a mother to the point of increased permissiveness).
In sum, there appears to be reason and research to
substantiate the belief that a child's initial temperament
is a potentially significant early developmental factor
influencing the eventual level of his aggressiveness.

Skills Deficit

Second, various skill deficits, especially cognitive-
social skills, have been shown to exert a significant
influence on the functioning level of a child. It is
hypothesized that poor functioning levels which are
associated with measurable deficits in cognitive-social
skills, adversely impact on a child's aggressiveness. This
section addresses the cognitive-social skills most
frequently studied. They include peer-interaction
skills/cue-interpretation and attribution, academic success,
and empathy (Dodge, 1980, 1984; Feshbach, 1983; Frankel and
Simmons, 1985; and Keane, Brown, and Crenshaw, 1990).

Peer-Interaction Skills: Cue Interpretation and
Attribution. Dodge has done extensive work on the topic of

cognitive-social skills deficits, their involvement in aggressiveness, and how the deficits impact on peer-acceptance /rejection. Dodge's findings stem from his work on cue-interpretation and attribution (Dodge, 1980; Dodge, Murphy, Buchsbaum, 1984). Investigating the role of hostile attributions and negative response-biases in aggression, Dodge has shown that children identified as being aggressive tend to ascribe negative intent to ambiguous situations, and have distorted social perceptions as to the motivation or intent of other people's behavior. Dodge has demonstrated that children with these poor peer-interaction skills tend to be more aggressive and less popular than their peers who have strong peer-interaction skills, who likewise tend to ascribe negative intent less frequently to ambiguous situations (Dodge, 1980).

Dodge has conducted several studies in which he manipulated the ambiguity of a peer's behaviors and then measured the effect this had on an aggressive child's response. Dodge found that a child assessed as aggressive by peers, was likely to attribute hostile intent to accidental behavior or ambiguous situations (displaying distorted social perceptions), and thus retaliate aggressively toward peers (displaying a negative response bias). This sort of behavior pattern is likely to contribute to a child's rejection by his peers. Peer-rejected aggressive children, also tend to exhibit additional social-cognitive skills deficits such as more

off-task behavior, more immaturity, and less behavior
flexibility than accepted non-aggressive children (Dodge,
1980; Dodge, Murphy, and Buchsbaum, 1984; Frankel and
Simmons, 1985). The ramifications of this issue are
addressed further in the following paragraph.

Academic Success. As reported above, the cognitive-
functioning skills such as immaturity, inattentiveness, and
inflexibility are not only associated with decreased peer
acceptance, but have also been shown to be associated with
poor academic success, which in turn has been shown to be
associated with early juvenile delinquency (Loeber and
Dishion, 1983). For example, inattentiveness and frequent
off-task behavior contribute to impaired scholastic
performance. This lack of academic success is commonly
associated with delinquency which is commonly associated
with an aggressive behavior tendency (Loeber and Dishion,
1983). In fact, poor scholastic performance is a frequently
correlated factor used in predicting delinquency, as many
delinquents have been found to have records reflecting poor
academic achievement (Dodge, 1980; Griffin 1987; Loeber and
Dishion, 1983).

Empathy. Not only have inadequate peer-interaction and
academic skills been implicated as affecting a child's
aggressiveness, but also poorly developed empathy skills
(Feshbach, 1983; Frankel and Simmons, 1985). Feshbach has
conducted studies which indicate that a lack of empathy
skills is frequently associated with aggressive behavior

problems; and that teaching empathy skills lowers the frequency of aggressive behaviors (Feshbach, 1983).

In 1983, Feshbach published a study in which she presented empathy training and problem-solving skills training (problem-solving skills will be discussed more under Social Competence) as alternatives to corporal punishment for the management of aggressive behavior in the classroom. She found that those children who had participated in empathy skills training did in fact display reduced aggression and increased prosocial behavior and that those in the problem-solving group also displayed decreased aggression, although not also the increased prosocial behavior for which empathy skills training appeared essential. Feshbach concluded that her results both support and qualify her primary emphasis on empathy skills training for aggression, and that this area therefore requires further research to tease out what the essential operating variables are for the decrease in aggressive tendencies among children (Feshbach, 1983).

Frankel and Simmons (1985) advocate for cautious interpretation of Feshbach's work on the role of empathy. In their review, they found little research to support the importance of empathy skills; in fact, they report that even after attempts to improve a child's empathy skills, decreased levels of aggressiveness have not been observed. Although my current review found only emerging research on the possible role of empathy skills in the level of a

child's aggressiveness, it would certainly be premature to rule-out any contribution of empathy on aggression.

Social Competence

The third category to be addressed under child characteristics is social cognition\competence. This is a broader concept which has received increased consideration recently for its contribution to the understanding of the development and prevention of childhood aggression. In contrast to the developmental risks associated with skill deficits, adequate social competence may actually provide a protective barrier against developmental problems. Social competence involves overall child adjustment and cognitive functioning, rather than just specific fundamental micro social skills. Social competence includes skills in such areas as general coping, interpersonal problem-solving, making accurate cause-effect interpretations, ability to generate appropriate alternative solutions in difficult situations, good self-esteem, effective group interaction skills, and other self-protective skills (Dodge, 1980; Garmezy, Masten, and Tellegen, 1984; Keane, Brown, and Crenshaw, 1990; Patterson, 1986; and Patterson and Narrett, 1990). Researchers, such as Downey and Walker, (1989), Garmezy, et al., (1984), Patterson (1986); and Patterson and Narrett, (1990), see adjusted children with high social cognition as having an advantage due to their competency, which allows them to deal with daily stresses better than

children with low social cognition. These authors advocate that such a combination of skills offers children a protective barrier against developing later behavioral disorders.

Downey and Walker in 1989, designed a study to test two models (mediation versus compensation) of how social cognition affects the link between child adjustment and two family risk factors (maltreatment and parental psychopathology). They found that family risk status did not predict social cognitive skills, therefore the mediation model was not supported. However, consistent with the compensation model, subjects with high social cognitive skills were better adjusted than those with low social cognitive skills, regardless of family risk status. These findings led Downey and Walker (1989) to distinguish resilient from vulnerable children based on the children's social cognitive skills.

The compensation model implies that there exist several other compensatory social contacts that can positively influence children, and thus compensate for their exposure to potentially harmful rearing by inadequate parents (i.e., parents with psychiatric disorders). These other social contacts allow children to develop social cognitive skills (possibly through modeling) that can compensate for their increased family risk. Downey and Walker concluded that based on the obtained data, it would appear that social cognitive skills have the potential to compensate for the

effect of maltreatment. Patterson (1986) too, comments on

the idea of social competency, and suggests that the lack of

normal peer-group exchanges hinders a child's learning about

the social skills of empathy, reciprocity, and cooperation.

Caution is raised however, when interpreting Downey and

Walker's data which uses a group of psychopathic parents or

known abusers, as raters of their childrens' behavior, while

not including peers' or teachers' ratings for validity.

Offering additional support to the findings of Downey

and Walker (1989), Garmezy, et al. (1984), in their review

on developmental approaches to understanding

psychopathology, emphasize risk versus competence\protective

factors. Under protective factors, they include positive

dispositional attributes (i.e., parental flexibility),

environmental conditions (i.e., adequate housing

arrangement), biological predisposition (i.e., easy

temperament), and events (i.e., open display of affection).

They also include low family stress level, positive parent-

child relations (addressed further under Parental

Characteristics) involving effective communication and a

good fit between parent and child temperaments, and

availability and utilization of external supports. Under

risk factors, they include marital discord, chronic conflict

or dissolution, adverse family stress, environmental stress,

and low social class. They concluded, like Downey and

Walker, that social competence is a viable factor offering

children some degree of protection from behavioral disorders

such as aggression. That is to say, children in settings
involving several high-risk variables, will be less likely
to develop aggressive disorders if they have developed
adequate social competency which would facilitate their
coping in an adverse environment.

Identification

Fourth and finally, the amount children identify with
their parents, internalizing their parents' values and
standards, is another factor frequently evaluated for its
rather consistent effect on a child's amount of
aggressiveness. In this area of research, it has been
demonstrated that those children who have high levels of
identification with their parents, that is they have much in
common with and can relate well to them, tend to be less
aggressive than their less identifying peers (Eron, et al.,
1971).

Eron, Walder, and Lefkowitz (1971), highlighted four
particular classes of variables--instigation, reinforcement,
identification, and social status, which they believed had
significant effects on a child's aggression. They found
that the amount a child identifies with his father is
especially important. It was shown that those children who
do not identify with their fathers tend not to internalize
their father's interdictions. Specifically, the data
obtained show that when identification between father and
son is high, punishment for aggression acts as an effective

inhibitor, such that those children who closely identify with their fathers learn social rules well and their conformity generalizes well. In contrast, those who do not have an effective relationship are less likely to socialize as well, and are more likely to respond to their fathers as instigators, thus tending to be aggressive, especially in those situations in which their fathers are not likely to administer punishment (Eron, et al., 1971). However, the amount of identification a child has with their parents depends heavily on the amount of parental involvement (Patterson, 1986; Eron, 1980). Such entanglement of bidirectional reciprocity in parent-child interactions is found to be the rule rather than the exception according to this review.

Summary of Child Characteristics

To summarize the above, research seems to support the following conclusions: (a) Concerning a potential biological influence exerted by a child's initial temperament on aggressiveness, it appears that a difficult temperament is associated with increased risk for aggressive tendencies in children (Garmezy, et al., 1984; Olweus, 1980; Thomas, et al., 1971). That is, an infant who is considered difficult to quiet or appease, seems to wear out his parents' patience and tolerance sooner, making it more likely that the parent will become less motivated to tend to the difficult infant's constant demands. This in turn apparently sets the stage

for an adverse cycle, such that the more the infant's needs
are neglected by an exhausted the parent, the more demanding
the infant might appear because he is never satisfied. (b)
There is well documented evidence that a lack of adequate
cognitive-social/inter-personal skills such as empathy and
academic success, is associated with increased aggressive
tendencies in children (Dodge, 1984; Feshbach, 1983; Frankel
and Simmons, 1985; and Keane, et al, 1990). It seems, that
these children who lack fundamental academic skills and
functional empathy skills (with all of their associated
weaknesses like inattentiveness), are at a disadvantage when
it comes to relating to their peers, which makes them
possibly more frustrated and likely less popular. (c)
Social competence is a newer area showing that children can
mature and develop coping strategies which may allow them to
compensate for or be buffered from the high risk family
conditions associated with increased aggressiveness (Dodge,
1980; Garmezy, et al., 1984; Keane, et al., 1990; and
Patterson, 1986). (d) Similarly, a child's degree of
identification with his parents (especially his father),
appears to moderate the impact of parental influence (such
as discipline) on children's aggression, such that lower
identification is correlated with an increased probability
of aggressiveness in children (Eron, 1980, Eron, et al.,
1971; and Patterson, 1986). For instance, if a child has
been afforded that opportunity to develop an effective
relationship with a productive adult individual (hopefully

at least one of his own parents), despite living in an
environment conducive to behavioral problems (such as low
SES or an alcoholic parent), he may be able to internalize
and thus utilize the values and skills emanated by the
respected adult, to better cope with the challenges
presented in his adverse environment.

IV. Parent Characteristics

Next addressed are the parental characteristics that have been indicated as important in the development of a young child's aggression. This section is organized into three categories of variables that relate specifically to parents and their role in a child's development of aggression. They are: prominent maternal variables, prominent paternal variables, and mutual parental variables. Although the first two sections of the following have been categorized maternal or paternal, it should not be assumed that there is no over-lapping effect from one category to the next. That is to say, variables under the maternal group, are not necessarily exclusive to mothers only in all cases (and vise versa for fathers), although research has traditionally addressed them according to such categories. It stands to reason that all variables become mutual in single parent homes or homes where parents perform flexible roles that do not conform strictly to traditional responsibilities.

Prominent Maternal Influences

From this literature review, three primary maternal factors emerge as especially significant in relation to a child's aggressiveness. They include: maternal

psychopathology (as a biological influence), maternal

attitude/socialization, and maternal monitoring.

Maternal Psychopathology. First, to be discussed is

the frequently cited biological influence of maternal

psychopathology and its role in a child's development of

aggression. It is suspected that children of mothers who

have a pathological disorder can be at an increased risk for

a pathological disorder such as aggression (Downey and

Walker, 1989; Eron, Walder, and Lefkowitz, 1971).

Particularly suspect are mothers diagnosed with either

schizophrenia or clinical depression (Downey and Walker,

1989).

However, even though there is research validating the

possible biological maternal influences on a child's level

of psychopathology (such as schizophrenia; Downey and

Walker, 1989), this review produced little evidence to

support any significant influence on the link to children's

aggression. What was found were inconsistent results. For

instance, although Downey and Walker are cited as authors

who consider maternal psychopathology as one of the most

powerful predictors of maladjustment in children, the

results from their 1989 study (involving maternal risk

factors of psychopathology and maltreatment on a child's

adjustment), did not substantiate this. In fact, the

obtained results suggested that maltreatment (an

environmental condition), and not parental psychopathology,

was the more significant risk factor. Furthermore, it is
the opinion of several researchers (e.g., Eron, 1980, and
Patterson, 1986), that any inferred influence on aggression
can be explained in behavioral/environmental terms (as is
consistent with the perspective from which this paper is
written). To illustrate, mothers suffering from a clinical
diagnosis of schizophrenia or depression demonstrate
different behavior patterns than non-disturbed mothers
(Downey and Walker, 1989). Such being the case, a child
raised in the home of a disturbed mother is exposed
frequently to the behavioral symptoms of her condition.
Exposure to these behavioral symptoms, and not the
biological presence of the mental illness, could be
considered the real detriment.

Maternal Attitude. The second factor to be examined is
the frequently implicated maternal attitude. Maternal
attitude involves the behavioral disposition, either
accepting or rejecting, with which a mother normally
interacts with her child. Eron, et al. (1971) address this
concept in their discussion of the inter-relatedness of 4
classes of variables: instigation (which depends primarily
on degree of maternal acceptance), reinforcement,
identification, and social status. The authors define
instigation to include a child's sense of rejection, lack of
nurturance, and disharmony between parent and child. The
mother's attitude is considered to play a major role in a
child's level of perceived support. This perceived level of

support has in turn, been shown to have an effect on a child's development of aggressiveness. Specifically, Eron, et al's work indicates that when a child is raised with a sense of acceptance and support, he is less likely to develop an aggressive disorder. This is in contrast to a child raised without such security, who has a sense of rejection and lack of nurturance from his mother, who therefore appears likely to have increased aggressive tendencies.

Olweus published a report in 1980 (described earlier), that lends support to Eron, et al's position emphasizing the importance of maternal attitude on a child's level of aggressiveness. In addition to the results described earlier, Olweus found that the basic emotional attitude of the principal caretaker (in this study, primarily the mother), contributed directly to the child's development of an aggressive reaction pattern. Specifically, if the mother is negative and rejecting, and indifferent to her child when he is young, then he is theoretically more likely to display a behavioral disorder (e.g., aggressiveness) in his adolescence. It is interesting to note that a basic negative/rejecting attitude was also found to be associated with more frequent use of power-assertive discipline techniques (i.e., corporal punishment and strong threats), which is in turn associated again with more aggressiveness (Olweus, 1980). The topic of discipline techniques is

explained further in the section involving mutual parental
influences on a child's aggressiveness.

Keane, Brown, and Crenshaw (1990) conducted a study
designed to test the nature of maternal influence on
children's social interaction. As predicted, they found a
relationship between maternal social behavior and a child's
sociometric status (popularity). Mothers of popular
children and rejected children differentially focus on
intention and damage. They found that mothers and their
children shared the same biases. More specifically, they
found that rejected children and their mothers tended to
ascribe aggressive behavior to non-hostile and ambiguous
cues more frequently than did popular children; and that
mothers of popular children tended to provided more
prosocial resolutions, and focused more on the intent of
their child's actions, than did mothers of rejected
children. This is an interesting finding because it
suggests the possibility of a rejecting maternal attitude
which is possibly indicative of a parental skill deficit,
being linked to a child skill deficit. That is, mothers of
aggressive children may lack the very skill that their
children need in order to develop prosocial interaction
skills. In this regard, an intergenerational transmission
of response biases may be occurring between mothers and
their children. If so, then these data raise an interesting
question of the most appropriate target for prevention

strategies: mothers or children (which is addressed later in the final conclusion section).

Maternal Monitoring. Olweus' (1980) results, previously reviewed under Maternal Attitude, also pertain to and introduce the next category, maternal monitoring. Maternal monitoring refers to the extent to which a mother oversees and responds to her child's activities, in this case, especially his aggressive behaviors. Olweus found that mother's degree of permissiveness was an especially important influence of aggressiveness. Specifically, his results indicated that a highly accepting, tolerant and permissive maternal attitude, without clear limits for aggression, substantially increased the child's level of aggressiveness. In fact, Olweus concluded that negative maternal attitude and poor maternal monitoring were more significant risks for increasing a child's aggressiveness, than the use of physical punishment.

The mere volume of studies that have implicated maternal attitude and perceived sense of maternal support/socialization as important in a child's development of aggression, suggest that these variables appear to be viable factors for continued research. Additionally, since the above variables are potentially malleable, they are all the more worthy for further exploration since better understanding of the dynamics behind them could improve prevention strategies for childhood aggression disorders.

Prominent Paternal Variables

In a parallel manner to prominent maternal influences on a child's aggression, researchers look for possible biological and non-biological influences passed on by fathers which could possibly increase a child's chances for aggressive tendencies. This section specifically addresses the potential biological influence of paternal criminality, and the non-biological influence of paternal identification.

Paternal Criminality. The primary biological paternal variable that research on aggression emphasizes is criminality. The hypothesis is that children of criminal parents, especially criminal fathers, are at increased risk of developing delinquency, and of expressing excessive aggression (Loeber and Dishion, 1983).

Loeber and Dishion (1983) conducted a systematic review of prediction studies on delinquency, which investigated paternal criminality as a potential predictive factor. The primary predictors of delinquency according to these authors were parental criminality, the parent's family management techniques (supervision and discipline), the child's early conduct problems, and the child's poor academic performance. Through analyses of their research, they found that parental criminality was among the principal predictors of delinquency. It appears that the possibility does exist for there to be a genetic relationship between a father and a son, which allows for a criminal father to pass-on a

biological predisposition towards criminality to his son
(Loeber and Dishion, 1983). Yet, as with the potential
biological maternal influence, a strong alternative argument
can be made for subsequent and/or concurrent environmental
conditions that behaviorally account for the same outcome in
children's behavior. That is, a case can be made that
frequently these disturbed or criminal parents, are also
more likely to model delinquent behaviors and may also lack
adequate child-rearing skills (as will be elaborated on in a
following section). It is the position of this paper, that
such parental behaviors and inadequacies, which hinder
adequate parenting, are more critical for developing
prevention strategies for aggression at the current time,
than any potential biological influence.

Paternal Identification. Although identification is
potentially a mutual parental influence, Eron et al. (1971)
stress that it is usually the fathers who exercise the
foremost influence on children's aggression in this area.
As was outlined earlier in child characteristics,
identification with a parent involves the internalization of
their values. From Eron et al's (1971) research, it was
found that those children who do not identify with their
fathers are not likely to internalize their father's
interdictions, nor respond to their father's discipline for
aggressiveness. However, when identification between father
and son is high, punishment for aggression acted as an
inhibitor. Therefore, Eron (1980) reasoned that the

children who identify highly with their fathers, tend to be less aggressive than those who do not.

Nonetheless, caution should be exercised when considering the ramifications of the preceding relationship. For example, there certainly exist fathers whose values are less than admirable; and if sons are incorporating these possibly corrupt standards (where aggression could potentially be respected), then it would not stand to reason that these children would necessarily tend to be less aggressive. This is an important qualifier for the general belief that high paternal identification is associated with less aggressive behaviors. Additional analyses are needed to better understand such variations.

The fact that identification is emphasized here in the paternal section, as well as in the child section, illustrates the important reciprocal role of mutual interactions among family members in determining levels of childhood aggression. This pattern appears to be more the rule than the exception in the literature considered in this review, an will be addressed again in the final conclusions.

Mutual Parental Influences

This section includes discussion on the following prominent mutual parental variables which published literature has shown influence a child's development of aggression: specific discipline techniques, general

parenting styles, spousal relationship, and specific parent-
training interventions.

Discipline. The appropriateness of discipline, or the
lack of, it is one of the most well researched areas in the
study of parental influences on children's aggression. When
attempting to modify behavior, which is a typical concern
for parents, contingency and consistency are essential
elements (Parke and Slaby, 1983; Deur and Parke, 1986).
Contingencies are only effective if they are appropriately
administered, such that reinforcers should only follow
behavior that a parent wants a child to continue, and
punishment should only follow those behaviors they want to
deter. In conjunction with consequences being contingent,
it is also imperative that they be consistent for adequate
learning to take place. More to the point, in strict
behavioral terms, to decrease the frequency of
aggressive\antisocial behavior, the following conditions are
necessary: consistent reinforcement of alternative pro-
social behavior, and consistent punishment (or extinction)
of aggressive\antisocial behavior.

Illustrating the extreme importance of consistency,
Deur and Parke (1986) conducted an experiment to investigate
the differential effects of training on aggressive hitting
response. One hundred and twenty first through third grade
boys were the subjects in the experiment measuring
aggressiveness which involved a bobo-type clown doll. In

the experimental condition, aggression was first followed by varied reward schedules, and then later followed by varied punishment conditions. Their data showed that punishment slowed the rate of responding in acquisition, decreased acquisition response intensity, and decreased post-acquisition intensity (the intensity of the response during continuous punishment). This study clearly demonstrates the suppressive effect of punishment on the strength of an aggressive response. In fact, even the warning that punishment might be occurring was apparently sufficient to decrease the intensity of the response.

More importantly, this study indicates that the past history of the child is an important factor in determining the effectiveness of the use of punishment. The data indicate that children who have experienced a history of inconsistent reward and punishment for their aggressive behavior will be more resistant to new consistent administration of punishment and also will be more resistant to extinction. This finding suggests why parent training programs for parents of delinquents fail easily, given the probability that the delinquent children have a rearing history of inconsistent punishment. It would appear that inconsistent discipline may result in strongly established patterns of behavior which are highly resistant to the use of punitive control. This argument would certainly be in accordance with how a child's particular learning history

influences how he continues to learn or respond to
discipline (Dumas, 1989).

Addressing the importance of reinforcement, Eron et al.
(in their comprehensive work published in 1971) also stress
that reinforcement is one of the primary variables that
should be considered for curtailing aggression in children.
They explain that a parent must be providing reinforcement
of some degree if the parent expects reducing the
reinforcement to reduce the frequency of an undesired
behavior. That is, without reinforcement for appropriate
(pro-social) behavior being provided with some regularity,
the parent has little to no opportunity to withhold these
responses as a form of punishment. They are thus left with
only noxious stimuli to present as punishers, which actually
places them in the role of an aggressive model. This lack
of association with the parent as a source of reinforcement,
not only weakens the impact of reinforcement contingency as
a method of managing behavior and thus the strength of
punishment as a deterrent, but also affects the amount a
child identifies with their parent.

Pertaining to the generalized behavioral effects of
discipline, it is interesting to note that in the Eron et
al. (1971) report, it was hypothesized that parental
punitiveness, especially when physical, may provide a model
of aggressive behavior for children to emulate. This
observation points to the importance of the additional basic
behavioral element of role-modeling (also one of the four

primary elements according to Eron et al., 1971). Punitive
parents provide aggressive role-models which a child
observes, and which may have a disinhibiting effect on the
occurrence of the child's aggression as the child imitates
the punitive behaviors (e.g., Bandura, 1973). Eron et al.
(1971) add that a parent may serve as a strong model even if
infrequently present.

Further validation of the potential influence of
modeling on child aggressiveness comes from Griffin's (1987)
study. Griffin found in his study on early childhood
variables, support for the hypothesis that children learn
aggression through parental role-modeling. As he explains,
children who witness violent behavior, or are victims of it,
are likely to adopt an aggressive behavior style (however,
it is beyond the scope of this review to address fully the
variables involved in potential child abuse and
aggressiveness as implied here). As a result of these
findings, Griffin advocates for family intervention
approaches. Such an orientation is precisely what this
paper aims to promote. Given the wealth of information we
have obtained on how parents influence impressionable minds
and behaviors of their young children, we should immediately
start applying this knowledge constructively.

Parenting Style: Overview. Parenting style is largely
dependent upon the type and appropriateness of discipline
techniques used, and on the consistency in which they are

delivered. When parents take the basic discipline techniques and apply them as part of a comprehensive child-rearing approach, the result is their degree of control as part of their parenting style. In addition to appropriateness of discipline, parenting style also differs, according to Baumrind (1991), depending on degree of perceived parental support or warmth. When discussing the effect on child aggression, parenting-style has tended to be divided into four types depending on the particular degree of two major factors --warmth and control. The four categories include: permissive\lenient (high warmth, low control), authoritative\involved (high warmth, high control), harsh\authoritarian (low warmth, high control), and disengaged\uninvolved (low warmth, and low control) (Baumrind, 1991). Results of studies designed to assess which style is most effective are addressed below.

Parental Style:Involved/Authoritative (Parental Identification). The first category to be addressed, involved/authoritative, is best explained in conjunction with a discussion on good parental identification. In the Eron, et al. (1971) report (outlined previously), the authors concluded that the amount of parental identification was shown to be influenced by overall parenting style. It appears that the internalization process of parental values involved in identification seems to be enhanced by parents displaying low aggression, as children tend not to internalize parental standards when there is a high display

of aggression. Furthermore, they found that the less nurturant and accepting the parents were toward the child at home and the more punishment a child received at home for aggression, the less a child identified with either or both parents at home. In fact, one of the major instigators of aggression in children seemed to be a general lack of favorable support from both parents, which in turn tended to reduce the effectiveness of any punishment the parents administered as a deterrent to aggressive behavior.

Based on the description Eron provides here, it could be said that he is advocating for involved/authoritative parenting. That is, while describing the essential traits that facilitate high parental identification (parental support and strict but appropriate discipline not employing physical punitiveness), Eron is actually describing the involved/authoritative parenting style (Baumrind, 1991). Therefore, while high involvement and appropriate discipline encourage good parental identification, they likewise discourage child aggressiveness.

Parenting Style: Harsh\authoritarian. On the other hand, the adverse scenario Eron originally portrays above that inhibits adequate parental identification, is associated with the harsh/authoritarian parental style. This style is comprised of low parental warmth and high behavior control through excessive and physical discipline, and is considered a less effective parenting style for discouraging aggressiveness in children. Validating this

point, that harsh parenting is an inferior style, Huesmann, Eron, Lefkowitz, and Walder (1984) conducted a longitudinal study spanning 22 years, to examine the effectiveness of different parental styles and their effect on aggression in children.

They collected data on over 600 subjects and their parents, and eventually even included data on the subject's children. Among their many findings was that aggression measured at similar ages within a family across generations was more stable than aggression for the same individual at different ages (Huesmann et al., 1984). Their results indicate that poor discipline associated with an explosive parenting style in the grandparents is correlated with increased chance of antisocial behavior in both the parents and the grandchild. That is to say that if the grandparents were evaluated as having a harsh or explosive discipline style (per their responses to their questionnaires), chances were that their children (as parents) would discipline in a similar manner, which increased the likelihood that their grandchildren would then be more likely to be harsh disciplinarians.

Continuing on the topic of harsh parental discipline style, Olweus (1980), as referenced in Child Characteristics, designed a study in which he attempted to find out what important factors were responsible for the development of an aggressive reaction pattern. One of his primary findings was that parent's use of power-assertive

(harsh) methods did appear to have an effect on the development of aggression in children. Specifically, he found that children whose parents used harsh power-assertive techniques, were more likely to display aggressiveness than children whose parents used less power-assertive techniques. Additionally, use of power-assertive (harsh) discipline techniques (i.e., corporal punishment and strong threats), was more frequently associated with a basic negative parental attitude, and in turn associated again with more aggressiveness in children. It seems that those parents who utilize harsh discipline, are the same ones who tend not to show adequate support (low warmth). As already mentioned, children who do not perceive favorable parental support have been shown to be more aggressive than those who do receive parental support (Eron, et al., 1971).

Parenting Style: Permissive/Lenient. Following the same train of logic outlined above, permissive/lenient parenting is defined to include adequate parental warmth but inadequate discipline (Baumrind, 1991). Thus, although the child perceives acceptance, he is not adequately monitored. The inadequate discipline or limit setting, therefore, allows for a child to frequently display aggression that goes unconsequated by mothers. This "anything goes" attitude consequently allows for the child's aggressive behavior to become further ingrained in his repertoire. In fact, it likely results in him gaining an immediate desirable outcome (such as a tangible item, or escape from a

demand situation) which may further encourage the
aggressiveness (Patterson, 1986). The point here is that
even though a parent may invest effort in showing their
child affection, if the parent is not likewise investing
time in adequate monitoring and responding to the child's
behavior, for whatever reasons (be it perceived time
constraints, or an actual belief that better parenting
avoids discipline), then the probability of an aggressive
disorder in the child is increased.

Parenting Style: Disengaged/Uninvolved. This category
of parenting includes those parents who display both low
parental warmth as well as low parental control or
involvement. These are the parents who do not ask their
children questions, or monitor their behavior, and they
appear emotionally aloof to their child's needs or wants
(Baumrind, 1991). This would appear to be the type of
parenting that leaves the most to be desired for adequate
prevention of aggressiveness in children. That is to say,
that although both the harsh and lenient parenting styles
could stand improvement, such that harsh parents could
benefit from increased compassion towards their child and
lenient parents could benefit from increased limit setting
of their child's behavior, the disengaged parent seems to be
lacking the most in child-rearing skills necessary for the
prevention of aggression.

Still addressing the effect of degree of warmth and
monitoring on a child's aggressiveness, Loeber and

Stouthamer-Loeber (1986) studied the impact of several family management factors on a child's development of aggression. They concluded that the factors most strongly linked to child aggression are lack of parental supervision, lack of parental involvement, and parental rejection. Exerting a moderate influence were marital conflict, and paternal criminality. The weakest influence appeared to be harsh discipline, parental health, and separation from home.

Dumas (1986) further examined the role of parental perception of a child's aggressiveness, and parental involvement in the treatment of their child's aggressiveness. Dumas' work again supported the argument that parental involvement tended to affect a child's level of aggressiveness. In this case, however, the effect was indirect, in that lack of adequate parental involvement hindered improved child-rearing skills. Specifically, it appeared that less involved (disengaged) parents benefitted less from treatment (on child-rearing skills), which were offered to help parents more effectively discipline their children and thus decrease their child's aggressiveness. Therefore, aggressive children of uninvolved parents, were not significantly improved by their parents' exposure to training. Although level of involvement exerts its influence in the above study rather indirectly, such that less involved parents were inferior participants (i.e., they did not complete their homework, they dropped out, etc.), examples of a more direct influence are abundant. For

instance, as discussed earlier, in order for effective discipline to be administered, parents must be involved in their child's life, monitoring his behavior and providing regular feedback on his performance (Eron, 1984; Eron, et al. 1971; Feshbach, 1983).

Given the existing discrepancy over the prioritization of factors influencing a child's development of aggression, continued research is certainly needed to account for the contrast in findings.

Spousal Relationship. The manner in which parents act towards each other, and not just how they act towards their children, has also proven to be important in the development of child conduct disorders like aggressiveness. For instance, Cummings, Iannotti, and Zahn-Waxler (1985), investigated what effect background emotion in parents (warm or angry) had on the aggressiveness of 2 year old children while they played in pairs. They found that the most immediate effect of anger between adults was to heighten children's distress, and that this influence became even more pronounced with repeated exposure to conflict. While the authors concluded that the children's response patterns were mediated by emotional reactivity rather than behavioral observation of aggression (Cummings et al., 1985), the results suggest the potential for children to observe parental conflict and to later display aggression that was modeled.

From a more traditional learning perspective, it could still be argued that the toddlers' increased sensitivity could be explained as the result of them learning to expect unpleasant consequences once adults have begun to argue. The authors question to what extent children should then be shielded from background anger, given that conflict is an undeniable part of life, and that the development of effective coping strategies requires some exposure to conflict. Alternatively, observing fights that include problem resolution is surely to be less problematic than fights that do not include problem-solving. Although the perspective of this paper would consider some commonsense precautions attempting to reduce unnecessary exposure to adult fights as reasonable, it would also be reasonable to consider enhancing a child's coping skills in an effort to maximally prevent more serious disorders. Such an approach involving supplemental training for skills deficits is not the focus of this paper, but is well researched by Robinson (1991).

Dadds, Schwartz, and Sanders (1987) further investigated the effects of marital discord on parent training success with child conduct disorders. Their experiment included 24 families of children diagnosed as having a conduct disorder, who were assigned to either a marital-discord group or a no-marital-discord group, based on the parents responses to a self-report test designed to measure marital adjustment. These groups were then randomly

assigned to either child management training (CMT) alone (involving behavior management) or CMT with partner support training (PST) which focused on marital conflict, communication, and problem-solving. Treatment results indicate that the inclusion of a brief maritally focused treatment with behavioral parent training, can be an essential addition for improving success of treating children with conduct disorders (like aggression) when they came from maritally discordant families.

Further research will be needed to clarify the long-term effect of marital satisfaction on child development before it can be known whether this residual difference will have any measurable impact; but certainly this early work suggests promise for future research. It is at least worth considering that marital counseling in general could be a preventative measure for helping even those families with children not currently considered to have a conduct disorder. Additionally before leaving this section, the finding that brief marital counseling tends to improve spousal relations and effectiveness of child-management training leads to the suggestion that marital counseling be offered in conjunction with any parent training course.

Parent-Training Interventions

In addition to identifying the problems associated with the different discipline styles (not including the condoned authoritative/involved style), we also need to evaluate the

success of applying this knowledge to intervention methods.
As introduced earlier in the summary of the work by Eron, et
al. (1971), Loeber and Dishion (1983), and reaffirmed by
Bandura (1983), Dumas (1986), Griffin (1987), Patterson
(1986), and others, an important goal of the research on
aggression in children should be to provide parents with the
necessary skills that will enable them to interrupt the
targeted counter-productive cycle of certain maladaptive
parent and child behaviors. Bandura (1973) contends that
parents need information about behavior management (for
instance, the kind of information outlined under Discipline)
to better complete their job of raising their children.
Bandura (1973) explains that for too long parents have been
blamed for the results of errors of child-rearing but
professionals have not given them the technical skills
needed to successfully fulfill their responsibilities. In
this section, the effectiveness of parent training
interventions are discussed.

Incorporating the more consistent findings of strengths
and limitations of the parenting-style studies described
above, researchers have begun to develop strategies for
teaching parents improved child-rearing skills. Results of
parent-training studies are promising (Hawkins, et al.,
1991; Weissberg, et al., 1991). Exploring the potential
effects of parent training, McNeil, Eyberg, Eisentadt, and
Funderburk (1991), evaluated the generalization of treatment

effects from home to school settings in children who were referred for treatment of severe conduct disorders.

In this study, families received 14 weeks of parent-child interaction therapy (PCIT) comprised of two phases, where parents were taught to practice communication skills and behavior management through a general relationship-enhancing play therapy. One phase, called Child Directed Interaction (CDI), involves parents letting their children lead the play activity, while the parents socially praise appropriate behavior and ignore non-appropriate behavior, with the goal being to develop a positive parent-child relationship. Parent Directed Interaction (PDI), on the other hand, involves the parents leading the child's play activity and emphasis is placed on parents delivering clear commands and consistent consequences (e.g., time out for noncompliance).

Interestingly, successful treatment of home behavior problems using PCIT was associated with improvement in certain behaviors in the school setting. Possibly, the children developed habitual compliance behaviors due to the consistency at home in consequences, or due to the similarity of structural settings (which tends to facilitate generalization), since both locations were rule-based, employed social rewards and time-out, etc. This study is important because it suggests that specific child-rearing behaviors can be taught to parents and affect change in children's behavior both at home and at school. One

interesting question worth considering, but not discussed in
this article, is whether CDI or PDI are equally instrumental
phases in facilitating the positive effect of decreased
aggressiveness, or is one actually more essential than the
other, or even more likely, does it possibly depend on
individual situations?

Webster-Stratton, Hollinsworth, and Kolpacoff, (1989),
conducted a study designed to assess the long-term
effectiveness of three cost-effective training programs for
families with conduct-problem children. One condition
consisted of a videotaped training course of social
learning-based techniques being modeled for parents to
duplicate as one condition. Another condition involved
group discussions including a therapist's participation.
The final condition combined both the videotaped training,
as well as the group discussions. Results showed that the
videotaped social-learning based approach appeared
effective, and that when this very broad approach was
supplemented by group discussion with a therapist, treatment
results were even more significant. Additionally, results
showed a successful one year maintenance of positive effect
obtained immediately after treatment. Baum and Forehand
(1981) along with Kazdin, Rodgers, Colbus, and Seigel
(1985), likewise published encouraging results of studies
assessing the long-term effectiveness of parent training on
aggressiveness.

Despite these optimistic results, Webster-Stratton et al. (1989) concluded that future research is needed to better understand the variables operating among the non-responders so that more effective programs can be designed along with even longer term treatment effects. In sum, the above research indicates that: (a) lack of adequate parenting skills tends to increase child aggressiveness, (b) these parenting skills can be improved, (c) once parents are taught child-rearing skills, there is an associated improvement in child adjustment (decreased aggressive tendencies), and (d) this improvement tends to be enduring (Bandura, 1973; Baum and Forehand, 1981; Baumrind, 1991; Eron, 1980; Hawkins, et al., 1991; McNeil, et al. 1991; Webster-Stratton, et al. 1989; and Weissberg, et al., 1991).

Summary of Parent Characteristics. Several findings appear substantiated in the preceding studies: (a) Overall, any potential biological influence attributable to maternal psychopathology or paternal criminality, can be qualified by a behavioral social-learning argument. That is, parents with these types of traditional risk profiles, can also be perceived as at risk for inadequate or faulty parenting skills. These parental deficits exert an adverse influence on a child's learning environment, thus increasing the likelihood of the development of childhood aggression (Downey and Walker, 1989; Eron, et al. 1971; Griffin, 1987; Keane, et al. 1990; Loeber and Dishion, 1983; and Olweus,

1980). (b) Micro-environmental influences (such as maternal
attitude, maternal monitoring, and paternal identification),
effect a child's development of aggressiveness (Downey and
Walker, 1989; Eron, et al. 1971; Keane, et al. 1990; and
Olweus, 1980). That is to say, a rejecting maternal
attitude, inadequate maternal monitoring, or low parental
identification all appear to be associated with an increased
likelihood of a child developing an aggressive disorder
(Baumrind, 1991). It seems that a child lacking in any one
or combination of the above areas, lacks adequate
opportunities to learn appropriate control over his
aggressive tendencies. (c) Even more important it appears,
are the mutual parental factors (such as basic discipline
techniques, general parenting style, and satisfaction of
spousal relations) that affect a child's aggressiveness. In
other words, a child raised in a home employing the
preferred authoritative/involved parenting style which is
associated with appropriate use of discipline techniques,
seems to be at an advantage for learning appropriate
interpersonal behavior. Possibly, it is the case that
satisfied spouses are able to be better parents, meeting the
discipline needs of their children because, their marital
needs are being adequately met by their spouse. This
scenario points to the importance of developing
parenting/child-rearing training programs, in conjunction
with an element addressing enhancement of spousal
relationships where applicable (Cummings, et al. 1985;

Dadds, et al. 1987; Deur and Parke, 1986; Dumas, 1986; Eron, et al. 1971; Loeber and Dishion, 1983; Loeber and Stouthamer-Loeber, 1986; Heusmann, et al. 1984; Olweus, 1980; Parke and Slaby, 1983; and Robinson, 1991). (d) Finally, the effectiveness of Parent Training interventions as outlined above, are certainly encouraging and deserve further investigation into making Parent Training as efficient as possible (Baum and Forehand, 1981; Hawkins, et al., 1991; McNeil, et al. 1991; Webster, et al. 1989; and Weissberg, et al., 1991).

V. Environmental Characteristics

The final category to be considered, involves those environmental characteristics that have been shown to significantly affect a child's aggression level. The three specific areas to be reviewed concern (a) television violence, (b) socioeconomic status, and (c) contextual effects, a term used by Dumas to cover a broad category of variables operating in one's society (such as job stress and medical health). These three areas have consistent and measurable effects on a developing child's level of aggression.

Television

The studies referenced concerning television violence are only a sample of the larger library of research on the effects of television viewing and are included because the development of aggression was a primary focus. Not long after it was invented, television was being scrutinized for its effects on viewers and the impact its programs had on aggression (Olweus, 1980: Patterson, 1986). The results of most research point to a positive correlation between amount of violence viewed on television and the amount of aggression displayed by a child (Eron, 1980; Eron, et al., 1971; Olweus,1980; and Patterson, 1986).

Bandura's Social Learning theory is frequently employed as the theoretical framework from which the research on

television viewing is designed and interpreted. On
television, the actors and actresses function as the models.
Their consequences for aggressive acts, according to
Bandura's theory, enable children to learn new behaviors, or
reinforce current behaviors. That is, the more violence a
child views being reinforced on television programs, the
more likely he is to learn that such behavior is acceptable
and serves an important functional role in society (Bandura,
1973).

Eron, et al. (1971) also operate from a similar social
learning perspective in their work on the development of
aggression in children. Based on their findings, they
advocate that there should be a decrease in the amount of
aggressive models available, and an increase in the amount
of non-aggressive models available for children to view. If
this change were made, then children would be more likely to
learn pro-social behavior from the non-aggressive models.
In later work expanding on this original theme, Eron (1980)
reported that the violence of the television program a boy
preferred when he was 8, was a strong predictor of how
aggressive he would be when he was 19. Specifically, he
found that the more television violence a boy at 8 years old
preferred, the more likely he was to display aggressiveness,
compared to those boys who preferred less violent shows who
subsequently tended to be less aggressive. This raised the
question as to whether aggressive children seek out
aggressive programs at age 8, or whether aggressive programs

lead to the child's aggressiveness; a question which still needs more research to answer. Therefore, Eron stressed that there should be more severe scrutiny of the amount of television violence allowed in programs viewed by children. Eron further suggests that parents and teachers be taught techniques for countering the effects of television violence, such as regulating the quantity, and interpreting the quality of aggressive content to children.

Hall and Cairns (1984), conducted a study in an attempt to help clarify the roles of modeling and social reciprocity in the regulation of aggression in children. This study involved 100 first and second grade boys who viewed a film depicting either a direct aggressive activity or an inanimate aggressive activity. Afterwards, the boys were observed for their aggressive behavior while they played in pairs. Modeling was defined as a "non-interactive form of observational learning whereby the child is permitted to view the performance of some novel acts performed by a model, toward some live or inanimate object"; in contrast, social reciprocity was said to occur "when the acts of two or more persons support each other in a relationship and their actions become similar to each other" (Hall and Cairns, 1984, p. 739).

After analyzing their findings, the authors concluded that the influence of modeling and social reciprocity were not mutually exclusive. In fact, they in general operate simultaneously to affect the eventual quality of a child's

aggressive behavior. Specifically, Hall and Cairns (1984) concluded that the role of observational learning was to provide information about the setting/context, while the role of reciprocity from acts of peers, was to regulate the child's on-going behavior. As the authors note, these results were probably affected by experimental conditions of this study which encouraged the effect of observational learning due to the fact that the assessment setting intentionally mimicked the filmed situation. Therefore, generalizability of these results are somewhat limited (Hall and Cairns, 1984). Otherwise, in general, the research on effects of increased aggressive tendencies in children viewing television violence is rather well substantiated.

SES

The second significant environmental characteristic frequently studied for its impact on aggression is socioeconomic status (SES). SES has been defined to include the primary money-earner's income and level of education, family size, and housing status (Dumas, 1990). Several studies indicate that the SES level of a child is negatively correlated with his level of aggression (Garmezy, Masten & Tellegen, 1984; Patterson, 1986). That is, a child raised in a family of low SES is more likely to develop higher aggressiveness than one raised in a family of high SES (Dumas, 1990, Eron, et al., 1971; and Eron, 1980). Given that low SES is generally associated with increased

stressors such as lower level of education, higher level of
marital discord, and financial demands that require both
parents work, this conclusion is very plausible.

Dumas attempts to better define the actual role SES
plays in the development of aggression in his 1986 article
(already referred to in Parenting variables). In this study
he examined SES variables as they affected parental
perception of a child's aggressiveness, and parental
involvement in the treatment of their child's
aggressiveness. Dumas concluded that a parent's perception
of their child's level of aggressiveness was not related to
their SES, but that their level of involvement in treating
any problems with aggressiveness showed a significant
positive correlation with SES. More specifically, he
concluded that parents of lower SES were less likely than
parents of higher SES, to benefit from interventions such as
parent training (Dumas, 1986). It is not necessarily that
low SES families that do remain involved do not do as well,
but instead it seems that low SES families are more likely
not to seek treatment in the first place (maybe because it
is too expensive), and tend to drop out early (maybe because
they do not think that they can afford the time investment).
However, of those low SES families who do stick with it,
they do seem to profit as much as those from other SES
groups. Nevertheless, the lower SES does appear to act as
an indirect adverse influence on families, such that even if
parent training were offered to lower level SES families who

may need it most, chances of improvement are not as
encouraging.

Specifically, working, lower-class parents with minimal
education, are not likely to have the ideal amount of time
or motivation to learn and effectively practice Parent
Training (Blechman, Tryon, McEnroe, and Ruff, 1989).
However, although a lot of research does implicate low SES
as a high-risk variable in a child's development of
aggression, not all of the data consistently supports this
hypothesis. For instance, Eron et al. (1971) obtained some
results that suggest that the intensity of punishment has a
differential effect depending on the SES of the parents
administering the discipline. In particular, Eron et al.
(1971) found that although upper-class fathers tended to
punish harshly less frequently than lower SES fathers, when
they did punish harshly, the discipline tended to be more
extremely severe (Eron, et al. 1971). Consequently, these
upper-class fathers who punished more severely, had children
who were rated as more aggressive by their peers, whereas
aggressiveness of children of lower-class fathers was less
affected by intensity of punishment. At this time, it is
still unclear why this difference exists. Less
contradictory, but still adding to the complexity of the
picture, Olweus (1980) found that the SES of the family was
not significantly related to a boy's aggression. Research
addressing this discrepancy is still needed to better
account for these contradiction in findings.

Contextual Effects

The third environmental characteristic to be considered in this report is contextual effects (Dumas, 1989). Contextual effects include both specific and immediate variables that impact on an individual's behavior, such as recent emotional setting (e.g., an argument with your landlord), as well as broader learning-history factors that influence an individual's behavioral disposition. The construct, contextual effects, involves an appreciation of the difference between background circumstances, such as high and low risk family environments, and immediate circumstances, such as an obvious catalyst like a child's actual inappropriate behavior. While SES is considered a contextual variable, it has received so much attention in the literature, that it merited its own section.

In the profile of contextual variables outlining a high-risk family (as defined above), not only is SES low, but the typical profile also includes adverse social and marital conditions, daily (i.e., traffic) or chronic (i.e., unemployment) stress factors, setting events (i.e., recent argument), and adverse family variables (Dumas,1990). This scenario involving such a combination of challenges which parents in high-risk environments must contend with regularly, would understandably make for less than ideal home environments for child-rearing. For instance, a parent coming home from an exhausting day at work, after driving in

traffic, arguing with their spouse, and then faced with a child who makes another demand on the parent, could conceivably have little energy or motivation left to adequately meet their child's need. A frequent pattern of such neglect certainly increases a child's chances for developmental problems such as aggressiveness, be it related to lack of monitoring or lack of emotional warmth (ramifications of which both were discussed under parenting styles). This is in contrast to low-risk families which would include healthy and stable family environments that seem to actually offer a buffering shield to potential behavioral problems (Dumas, 1986, 1989; Garmezy, et al., 1984). It would seem that such stability facilitates consistent discipline and affection, along with improved resources for problem-solving, all of which are associated with decreased aggressive behavior.

Dumas (1989, 1990, and in press), suggests that not only can the immediate environmental setting of current stimuli-response reactions (such as being the target of an aggressive act, or hormonal reactions to any recent emotional events) impact on the display of aggression, but also each individual (parent and child) brings to any interaction their unique past history of other learning experiences, not to mention other miscellaneous variables that interact simultaneously to produce the eventual behavioral outcome. A good example of the effect of learning history on a child's aggressiveness, is Deur and

Parke's (1986) study of the effects of punishment on an
aggressive response (outlined under Discipline). Briefly
what Deur and Parke (1986) found was that a history of
inconsistent punishment for aggression seemed to be
associated with increased difficulty in alleviating an
aggressive behavioral pattern. Yet even more importantly,
what Dumas found was that you could better predict how a mom
would treat her child by knowing the contextual variables
surrounding her (like a fight with her spouse or boss), than
by knowing the behavior of the child or his history. Dumas'
work suggests that increased emphasis on the exploration of
environmental/contextual stress factors that influence
aggression is certainly justified.

Garmezy, Masten, and Tellegen (1984), drew similar
conclusions regarding the need for further investigation of
the inescapable effect one's environment has on
aggressiveness, when they published a review article on
developmental approaches to the understanding of
psychopathology (including childhood aggression). In the
earlier summary of their work which looked at risk,
competence, and protective factors affecting aggression in
children, the authors concluded that this area clearly needs
more research. They assert that for this endeavor to be
productive, it will require the joint efforts of
developmentalists along with psychopathologists to address
intervention and prevention of childhood disorders.
Additionally, this perspective appears to be in agreement

with the work of Winett et al. (1983), and Zigler, Taussig,
and Black (1992) who likewise advocate for a more
ecological/multidisciplinary-systems oriented approach to
replace the existing more conservative victim-blaming
stance. In such a reformed approach, the emphasis is on
such issues as competency building and settings
modification.

Further addressing society's role in the development of
aggression, Eron (1980) advocates that an important step to
reducing aggression in our society necessitates alteration
in the way children are raised and socialized. In
particular, Eron has argued that boys should be brought up
more similarly to girls, since girls consistently display
less overall aggression (Eron et al., 1971; and Eron, 1980).
For example, aggression displayed by boys is usually more
tolerated, if not reinforced, than that displayed by girls.
Girls instead are taught less aggressive ways of problem
solving, such as enlisting the aid of an authority figure
(i.e., parent or teacher). In his report, Eron attributes
most of the differences in levels of aggression to the
dichotomous way boys and girls are socialized from birth.
He argues that learning and experience dominate over any
biological predisposition. Further, he argues that since
aggression is basically a learned behavior then it can be
unlearned. However, as aggression is learned early and
maintained because of its strong reinforcing effects (i.e.,
in obtaining desired goals or effects), elimination is not

easy. Eron therefore stresses that we must intervene early,
teaching children appropriate alternative ways of solving
problems (Eron, 1980). It appears that such teaching needs
to come from parents adequately trained in this area
themselves.

Summary of Environmental Characteristics.

Overall, research suggests that a child's environment
does exert a significant effect on his level of
aggressiveness. Television violence, low SES, and adverse
contextual settings, have all been shown to be particularly
important. It would appear that the effects of viewing
violent television shows are possibly among one of the
easiest factors to control and counter, given some of the
basic suggestions offered by Eron (1984), such as having
parents supervise the quality of the shows and interpret the
potential outcomes of those displaying violence. Still left
to be seen, but somewhat exciting is the outcome an
increased understanding of the dynamics of contextual
effects will have on interrupting childhood aggressiveness.
If for instance, we can become better at identifying those
extraneous influences that we have in the past been prone to
overlook, such as the effect of each individual's unique
past and recent history, we should then be in an improved
position for applying this increased knowledge to a
constructive end, such as through Parent Training courses
(Dumas, 1986, 1989, and in press; Dumas & Wahler, 1985;

Garmezy, et al. 1984). On the other hand, compensating for
the potential negative effects of lower SES on a child's
aggression is far more challenging, and will likely require
more organized community-based supports--in day or health
care for example, than simply increased parental and
educational awareness.

VI. General Conclusions

Summary

As stated after the brief synopsis of theories on the development of aggression, the behavioral social-learning framework appears to be the most robust in explaining the development and maintenance of aggression, and in suggesting methods for the modification of aggression in children. This framework justifies the quest for strategies aimed at preventing the development of maladaptive aggression in children, which coincides with this paper's stated goal. When adopting a preventative orientation, the challenge becomes to uncover those variables consistently present in the prediction of aggressiveness in children which are also malleable and accessible to psychologists. After completing this review of the literature, several child, parental, and environmental variables were identified as significant in providing pertinent predictive considerations for prevention. These significant variables will be presented in context of issues surrounding their implication for prevention strategies; afterwards I will offer a brief overview of general considerations for prevention programs, followed by more specific recommendations for an actual prevention program.

In summary of the important child characteristics, the literature reviewed revealed that in general, at the micro-sphere level, the most consistent child variables associated with aggression included areas such as skill deficits in problem-solving and group interaction, low general social competency, and low level of identification with parents (Dodge, 1984; Feshbach, 1983; Frankel and Simmons, 1985; and Keane, et al. 1990). The most significant parental characteristics included those factors which are mutual to both parents: attitude towards their child, parental discipline style, and spousal relationship (Cummings, et al. 1985; Dadds, et al. 1987; Deur and Parke, 1986; Dumas, 1986; Eron, et al., 1971; Loeber and Dishion, 1983; Loeber and Stouthamer-Loeber, 1986; Heusmann, et al., 1984; Olweus, 1980; and Parke and Slaby, 1983). Concerning the macro-sphere level, all three environmental topics studied (television programs, SES, and contextual effects) demonstrated an influence on a child's aggressiveness (Eron, 1984; Eron et al., 1971; Dumas, 1986, 1989, 1990, and in press; Dumas & Wahler, 1985; Garmezy, et al., 1984).

Much of what research has found regarding a child's development of aggressiveness at the parental level, could be considered common sense. For example, parents lacking adequate parenting skills, as well as possibly adequate coping skills, are likely to raise children with inadequate skills for solving problems and interacting with others, which increases their children's chances for aggressive

tendencies. If parents can not respond to their
environmental demands appropriately, how can they adequately
model, much less specifically teach their children those
skills? Likewise, it certainly makes sense that a child
raised in a positive, warm and caring environment, that does
not rely on harsh physical punitiveness, is more likely to
develop a positive disposition; Baumrind (1973) has
published results of research validating this.

However, despite the impression that much of what
research is validating could be considered obvious, it would
be a mistake to simplify the development of aggressiveness
in children to a simple equation of a + b = c. Even though
the evidence is beginning to accumulate that some variables,
such as exposure to stressors, do have an additive effect,
there is no guarantee that a certain combination of these
adverse variables (e.g., child skill deficits, spousal
dissatisfaction, low SES, etc.) causes a certain level of
aggressiveness. What can be anticipated, however, is that
as more healthy variables are present (e.g., adequate social
competency, good parental identification, marital
satisfaction, etc.) in a child's life, the child's chances
of growing-up free from problems and aggressive disorders,
are also increased (Dadds, et al., 1987; Eron, 1984; Eron,
et al., 1971; Garmezy, et al., 1984; Cummings, et al.,
1985). Apparently, healthy variables may offer some degree
of buffering from the effects of certain adverse variables
that are almost inescapable (e.g., environmental stressors)

(Blechman, et al., 1989, 1989; Dumas, 1986, 1989, and in press; Garmezy, et al., 1984).

Now that research has begun to substantiate the influence of several specific environmental variables, the focus can shift to the challenge of prioritizing which of the variables is most influential and predictive of aggression. The prioritization of pertinent variables could be according to those found to be the most common denominators, those found to exert the strongest influence, or those suspected of being the most malleable to improvement/change. Researchers such as Loeber and Stouthamer-Loeber (1986) have provided an early model of how we might approach this prioritization.

Another challenging issue is highlighted by the continued debate over which domain, parent or child variables, exerts the predominant influence on the other's behavior. That is, are the parents responding primarily to the child variables, or is the child responding primarily to the parental variables (Lytton, 1990)? The suggestion made in the discussion of child variables by Thomas et al., (1970), and implied in Dumas' argument on contextual effects, is that there are interactional or reciprocal interactions between parents and children that are related to the development of aggression, and quite possibly parental influences dominate. This position of perpetual, mutual, bi-directional influences between parent and child is advocated by several researchers in the field (e.g.,

Dumas, 1986, 1989, 1989, and in press; Eron et al., 1971; Keane et al., 1990; Lytton, 1990; and Tryon, Hopson, & Finney, 1991), and merits further research to untangle the complex reciprocal influences of family members' behavior on each other.

Recommendations for Prevention Strategies

General Considerations. After careful consideration of the various issues raised in compiling this review, it appears to me that targeting the behaviors of parents may be the most efficient means of achieving measurable improvements in preventing the development of childhood aggression. More specifically, intervening with expectant parents may be an even more effective strategy, since it is accepted theoretically that prevention of a problem before it occurs is generally easier than treatment of it after it has developed. This review points to the importance of providing parents sophisticated support and intensive education about parenting and their role in the development of childhood aggression (Bandura, 1973; Baumrind, 1973, 1991; Blechman, et al., 1989; Dumas, 1986, 1989, 1990; Eron, et al., 1971; and Garmezy, et al., 1984). In particular, research indicates that parents in lower SES groups should be targeted for these most intensive prevention efforts because of their increased probability for displaying problem behaviors associated with their contextual

disadvantages (Dumas, 1986, 1989; Eron, et al., 1971;
Garmezy, et al., 1984; and Hawkins, et al., 1991). By
sophisticated support I am drawing from the data on
environmental and contextual variables, and mean, for
instance, providing parents with affordable supplemented day
care, health care, and group support while they under go
training in child-rearing skills (Eron, 1984; Eron et al.,
1971; Dumas, 1986, 1989, 1990, and in press; Dumas & Wahler,
1985; Garmezy, et al., 1984). Similarly, by intensive
education, I mean specific training in the application of
behavior modification discipline techniques, and training in
cognitive-social/interpersonal relationship skills (such as
problem-solving, empathy, and cue-interpretation).

On the other hand, middle class expectant parents may
benefit most from slightly different prevention strategies,
such as those focused more on increasing general awareness
of their parental role in the development of behavioral
disorders, through offering college courses on the parenting
topics I outlined above, accompanied by the underlying
theory for why these principles work. The difference in
prevention strategies is based on the assumption that the
majority of middle-class parents are generally more capable
of obtaining the necessary information and services to meet
the child-rearing needs that they encounter, and are better
able to benefit from the teaching of abstract principles,
because their SES level is associated with higher
educational levels (and the basic academic skill of

generalizing to specific situations from general concepts)

than the lower SES levels.   Disadvantaged families on the

other hand, might benefit more from direct teaching that

includes hands-on practice opportunities, because their SES

level is associated with lower levels of education.

I would not recommend targeting the child in isolation

in prevention programs for several reasons.   One is the fact

that even if high-risk children were addressed early on

(before the expression of any behavioral problem) and

provided with a lot of skills-training (e.g., in peer-

interactions), and consistent behavioral management, and

consequently learned appropriate skills, it is unlikely that

these skills would endure for long once the support was

faded (Zigler, Taussig, & Black, 1992).   Unless there were

ongoing environmental supports to naturally maintain or

encourage the absence of aggressiveness in the trained

children, the conditioned behavior would be unlikely to

persist.   The likelihood of skill deterioration is

especially strong in the case of a child returned to an

adverse environmental situation (as outlined in high-risk

families) although some exceptions exist (Zigler, et al.,

1992).   As research seems to show, some children apparently

find surrogate social contacts (adults) to identify with and

model (Downey & Walker, 1989).   In this case it could be

argued that the surrogate social contact acts as the

naturally occurring positive environmental influence

maintaining the degree of coping and competence, despite any

adverse environmental situations in which these children are reared.

It could likewise be argued that even priming parents-to-be with improved parenting skills could fall subject to similar shortcomings. That is, even if lower SES parents are recruited and successfully participate in a child-rearing intervention, if their environment remains so adversive and counterproductive that they too get discouraged (due to lack of adequate support to address their significant needs --such as reasonable day and health care, while contending with a neighborhood and society that supports aggressive behavior), it is unlikely that the previous prevention strategy will provide enduring positive change. For instance, if during the intervention phase, parents receive supplemental support (day care, health care, and group support), and then once the training is completed they resume their original routine (juggling the constraints on their time) and are no longer able to adequately meet the needs of their child or monitor their behavior, then less optimal parenting behavior seems inevitable. Therefore, although I still believe that parents are the most efficient socializing agents, I would not underestimate or overlook the significant societal contribution to the perpetuation of this developmental disorder, such as television violence, and the adversities perpetuated in the lower class environments (e.g., crime, drugs, truancy, etc.). I have, however, concluded at this point that parents remain the

most malleable and accessible means of preventing aggressive disorders in their children, given the current resources available.

Specific Parent Training Considerations. The specific Parent Training procedure that seems most promising, based on the findings of my review, is as follows. Parents need to be taught the obvious, that they are the primary socializing agents for their children who absorb from them an incredible amount of information, and that the quality of their parenting can make this either a healthy or unhealthy process of information obtainment (Bandura, 1973; Eron, 1984; Baumrind, 1973, 1991; Eron, et al., 1971). Parents will consequently need to be taught the skills that comprise healthy parenting, such as those demonstrated in what has been referred to as involved/authoritative parenting style (Baumrind, 1973, 1991). Involvement includes a child perceiving a sense of acceptance and interest from a parent. One means of demonstrating this involvement is for the parent to monitor a child's behavior, providing feedback on when he is behaving appropriately and inappropriately. Being authoritative includes the importance of appropriate disciplining, that would not consist of a harsh nature (explosive and physical), but would consist of a warm and consistent nature (Baumrind, 1973, 1991; Eron, et al., 1971; Feshbach, 1983; and Keane, et al., 1990).

Along with teaching parents the importance of an involved/authoritative parenting style, I would recommend

that the parents receive specific skills training in the

following areas. Parents need to be taught for example, how

to teach their child, primarily through appropriate role-

modeling, how to make accurate interpretations of the intent

of others behavior, and then to respond appropriately (see

Bandura and Dodge's work). They need to be taught how to

teach their child peer-interaction skills such as empathy

skills and how to adopt another individual's perspective

(see Dodge's and Feshbach's work). Additionally, parents

need to be taught how to teach their child pre-academic

skills such as attentiveness, turn-taking, and problem-

solving strategies (Frankel & Simmons, 1985; Olweus, 1980).

All of these skills are relatively easy to teach by

conscientious modeling and monitoring of their child's

behavior in order to provide reinforcement for appropriate

display of behavior and redirection from inappropriate

behavior (Bandura, 1973).

Another important area that parents need training in is

spousal relationship skills (Cummings, et al,. 1985; Dadds,

et al,. 1987). For instance, they need to be taught better

ways of arguing so that they "fight fairly", and resolve

disagreements using problem-solving techniques, and

effective communication. It should be remembered that

arguing is normal and natural in adult relationships, it

only seems harmful when a child observes arguments that do

not lead to problem-resolution and tension reduction between

his parents; in which case he would only be exposed to the aggressive side of the situation.

Additionally, parents should be taught strategies for compensating for the almost inescapable adverse environmental influences, such as television violence and the contextual effects associated with lower SES. For instance, parents can screen the quality of television shows (i.e., by discussing the actual consequences of violence displayed on a show) and control some of the quantity of violent programs their child is exposed to (i.e., by limiting the time frame a child is allowed to watch television) (Eron, 1984). Addressing adversities associated with a lower SES context, parents can strive to discuss with their child the truer ramifications of the aggressive behavior he may witnessing in his community. However, I will concede that contending with the environmental influences on aggression at the macro-sphere level remains one of the biggest challenges for parents today and consequently one of the more important societal concerns I feel should be further addressed.

Finally, I would recommend that the parent training intervention format consist of a group setting that includes a therapist. The group format is to facilitate parents in establishing their own sort of support group to rely on as an ongoing reference, while the therapist would be available to facilitate discussions, and to provide information based on findings of current research. I would initially discuss

specific behavioral problems providing concrete and common

examples (such as a child having a temper tantrum). The

specific examples are employed to get everyone on equal

footing that acknowledges the tendency for lower SES parents

to lack academic skills in abstract generalization (due to

their typical scenario of lower education levels). I would

add to the group setting supplemental videotapes along with

bibliotherapy (consisting of books on parenting that were

written for the average parent's level of education), on the

general concepts of social-learning that additionally

include specific illustrations of the principles in

practice. The use of video-tapes has shown to be an

economical and time efficient means for sharing information

from experts, as well as providing expedient examples

without waiting for the group to constantly volunteer their

own (Deur & Parke, 1986; Webster-Stratton, et al., 1989).

Ideally at this point, the participating parents should be

sufficiently invested to complete some of the training on

their own. However, I realize that this is more probable in

the middle-class population as opposed to the lower class

population who might have to contend with threats of housing

eviction, or job instability, etc.

In order to enhance the long term effectiveness of the

Parent Training program, the intervention would include a

central referral process where a parent can call with

specific problems and receive referrals to the agencies

services, or supports they seek. Additionally I would

include a transitional fading period, along with periodic
follow-up where participating families are contacted every
six months to approximately one year for feedback on how
they are currently managing. This final recommendation
corroborates with the position articulated by Zigler et al.,
(1992) who suggest that the parental intervention not be
limited to any one particular stage, but rather that it be
provided during the various developmental stages the child
encounters, with the focus eventually shifting to actually
targeting the child primarily for receiving the specific
support or guidance generally necessary for handling the
different developmental challenges (e.g. first entering
school, pre-teen concerns, adolescent dilemmas, etc.).
Although many issues remain to be prioritized and
scrutinized concerning childhood development of aggression,
several have already been extensively studied, lessons from
which are in front of our very eyes waiting to be applied
and utilized in the prevention of aggressive disorders.

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