

**The Relationship Between Exposure to Family Violence and
Behavior in Children and Adolescents**
Melissa Klika

A Doctoral Project Submitted in Partial Fulfillment of
the Requirements for the Degree of Doctor of Psychology
in the Department of Psychology at Pace University

New York

2005

UMI Number: 3179453

Copyright 2005 by
Klika, Melissa

All rights reserved.

INFORMATION TO USERS

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleed-through, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

UMI[®]

UMI Microform 3179453

Copyright 2005 by ProQuest Information and Learning Company.

All rights reserved. This microform edition is protected against
unauthorized copying under Title 17, United States Code.

ProQuest Information and Learning Company
300 North Zeeb Road
P.O. Box 1346
Ann Arbor, MI 48106-1346

PACE UNIVERSITY

PSYCHOLOGY DEPARTEMENT PSY ..D. PROJECT FINAL APPROVAL FORM

(Please type all information)

NAME: Melissa Klika

TITLE OF PROJECT: The Relationship Between Exposure to Family Violence
and Behavior in Children and Adolescents

DOCTORAL PROJECT COMMITTEE:

PROJECT ADVISOR: Dr. Barbara Mowder
(Name)

Professor of Psychology Pace University
(Title) (Affiliation)

PROJECT CONSULTANT: Dr. K. Mark Sossin
(Name)

Associate Professor of Psychology Pace University
(Title) (Affiliation)

FINAL APPROVAL OF COMPLETED PROJECT:

I have read the final version of the doctoral project and certify that it meets the relevant requirements for the Psy.D. degree in School-Clinical Child Psychology.

Barbara A. Mowder
(Project Advisor's Signature)

9/12/2005
(Date)

[Signature]
(Project Consultant's Signature)

9/12/2005
(Date)

ACKNOWLEDGEMENTS

I have always wanted to avoid writing on the acknowledgements page the phrase, “I can’t believe I am finally writing this page...”, however as I sit here at my computer, writing this final segment of my doctoral project, those are the only words that capture this moment. I really cannot believe that I have finished this project and that this part of my educational journey is over.

This accomplishment would not have been possible without the help and support of many people I would like to thank here. First and foremost a special thank you to Dr. Mowder for her constant support and guidance throughout my educational career at Pace and during this project. I would also like to thank Dr. Sossin for his insight, feedback, and support during my time at Pace, as well as in his role as consultant on this project.

I would like to thank my parents, who have believed in me more than I have ever believed in myself and supported me always. Their constant support, guidance, and love has inspired me and given me the courage to follow my dreams. I owe you more than anyone could ever imagine. I would also like to take this opportunity to thank my best friend, Esta, who was there for me throughout this endeavor and encouraged me to go back to graduate school. You are a true friend and without you I would have likely given up on this pursuit a long time ago.

I want to thank my future husband, Chuck. You met me when I was halfway into this project and in full swing with my classes. You had no idea what you were getting into, thank you for seeing this through with me. I can’t thank you enough for your support, patience, and love. I am so thankful that you came into my life, you have helped me grow in so many ways; without you this project would have ended up being thrown out the window on more than one occasion.

I cannot end without a special thank you to the staff and students of The Children’s Institute in Verona, NJ, especially Dr. Bruce Ettinger. Without your support, understanding, and encouragement over the past eight years none of this would be possible. Thank you.

TABLE OF CONTENTS

CHAPTER	PAGE
ACKNOWLEDGEMENTS	iii
LIST OF TABLES	vii
ABSTRACT	ix
I. INTRODUCTION	1
Statement of Purpose	5
Research Questions	5
II. LITERATURE REVIEW	7
Direct Versus Indirect Exposure to Violence	7
Child Abuse	8
The Witnessing of Domestic Violence	10
The Co-occurrence of Abuse and Domestic Violence	12
Attachment Theory	13
Social Learning Theory	17
Attributions About Abuse	17
Maternal Stress	19
Gender	20
Age	21
Method of Reporting	22
III. METHOD	24
Participants	24
Materials	28
Child Behavior Checklist	28
Youth Self Report	30

	Millon Adolescent Clinical Inventory	31
	Parenting Stress Index-Short Form	33
	Procedure	34
IV.	RESULTS	36
	Framework for Presentation of Data	36
	Overall Means and Standard Deviations for CBCL and YSR	36
	Overall Means and Standard Deviations for MACI	39
	Study 1 Results	39
	Research Question One	41
	Research Question Two	42
	Research Question Three	46
	Research Question Four	50
	Study 2 Results	51
	Research Question One	51
	Research Question Two	52
	Research Question Three	54
	Research Question Four	57
	Study 3	61
	Research Question One	61
	Research Question Two	62
	Research Question Three	69
	Research Question Four	72
V.	DISCUSSION	75
	Summary	75
	Discussion of Group Differences	76
	Discussion of Gender Differences	77

Discussion of Age	78
Maternal Stress	79
Limitations and Directions for Future Research	81
Implications for School Clinical Child Psychology	83
REFERENCES	85
APENDICES	97
A. Institutional Review Board Pace University Approval Form	97
B. Institutional Review Board Morristown Memorial Hospital Approval Form	98

LIST OF TABLES

	PAGE
Table 1. Sample's Mean Scores and Standard Deviations on the CBCL	38
Table 2. Sample's Mean Scores and Standard Deviations on the YSR	38
Table 3. Sample's Mean Scores and Standard Deviations on the MACI	40
Table 4. Group Means and Standard Deviations on the CBCL	43
Table 5. One Way Analysis of Variance for the Effects of Group on the CBCL	43
Table 6. Group Means and Standard Deviations as a Function of Gender on the CBCL	44
Table 7. Two Way Analysis of Variance for CBCL Scores as a Function of Group and Gender	45
Table 8. Means, Standard Deviations, and Intercorrelations for Total Problems CBCL and Predictor Variables (Age, Gender, Group, and Stress)	47
Table 9. Means, Standard Deviations, and Intercorrelations for Internalizing Problems CBCL and Predictor Variables (Age, Gender, Group, and Stress)	47
Table 10. Means, Standard Deviations, and Intercorrelations for Externalizing Problems CBCL and Predictor Variables (Age, Gender, Group, and Stress)	48
Table 11. Regression Analysis Summary for Variables (Age, Gender, Group, and Stress) Predicting Scores on the CBCL	49
Table 12. Overall Group Means and Standard Deviations on the YSR	53
Table 13. One Way Analysis of Variance for the Effects of Group on YSR	53
Table 14. Means and Standard Deviations for Group as a Function of Gender on the YSR	55
Table 15. Two Way Analysis of Variance for YSR Scores as a Function of Group and Gender	56
Table 16. Means, Standard Deviations, and Intercorrelations for Total Problems YSR and Predictor Variables (Age, Gender, Group, and Stress)	58

Table 17. Means, Standard Deviations, and Intercorrelations for Internalizing Problems	58
YSR and Predictor Variables (Age, Gender, Group, and Stress)	
Table 18. Means, Standard Deviations, and Intercorrelations for Externalizing Problems	59
YSR and Predictor Variables (Age, Gender, Group, and Stress)	
Table 19. Regression Analysis Summary for Variables (Age, Gender, Group, and Stress)	60
Predicting Scores on the YSR	
Table 20. Overall Group Means and Standard Deviations on the MACI Subscales	63
Table 21. One Way Analysis of Variance for Effect of Group on Subscales of the MACI	64
Table 22. Means and Standard Deviations for Group as a Function of Gender on the	66
MACI Subscales	
Table 23. Two Way Analysis of Variance for MACI Scores as a Function of Group	67
and Gender	
Table 24. Means, Standard Deviations, and Intercorrelations for MACI Subscales and	70
Predictor Variables (Age, Gender, Group, and Stress)	
Table 25. Regression Analysis Summary for Variables (Age, Gender, Group, and Stress)	71
Predicting MACI Scores	

ABSTRACT

Research over the past 30 years highlights the existence of family violence as a major social problem. There are serious implications of the effects of exposure to violence on children and families. In fact, child abuse is consistently associated with increased levels of both internalizing and externalizing behavioral problems in children. Recent studies suggest that children who witness family violence may exhibit symptoms similar to children who have been abused. Further, there are reports that children who experience both stressors exhibit greater levels of distress than either of the other two groups separately. The impact of family violence on a child's adjustment is likely multiply determined. Characteristics of the child, parent, and environmental influences serve as possible mediator/moderator variables.

The present study examined the behavioral differences and similarities among children physically abused, witnesses of family violence, and both witnesses and recipients of abuse. The study also investigated the extent to which behavioral outcomes vary as a function of age and gender. Maternal stress was examined to determine if stress serves as a mediating variable that buffers the effects of violence or exposure to violence.

The sample consisted of 145 mother and child dyads referred for forensic psychological evaluations at a family violence unit in New Jersey. Children were grouped according to their level of exposure to violence: physically abused, witness to family violence, and both abused and witnesses. Responses to behavioral rating scales were analyzed to determine if group differences exist and determine potential mediating/moderating variables.

Results indicate no significant differences among each of the three groups with regard to behavioral adjustment. The results are discussed in the context of gender differences in coping strategies as well as the possibility of sub-clinical levels of problems that the rating scales did not capture. Levels of maternal stress appear predictive of increased levels of behavioral problems in children.

An awareness of the impact of exposure to violence is important for clinicians, particularly in the schools. Child abuse and exposure to violence needs to be considered as possible sources of developmental symptomatology. Further, males and females may experience forms of violence exposure differently. Finally, the relationship between family violence and children's and adolescent's behavior is discussed in terms of professional research and practice.

PREVIEW

CHAPTER ONE

Over the past 30 years, clinicians, women's groups, advocates, researchers, and the media have all highlighted the existence of family violence as a major social problem. Indeed, the creation of programs and shelters for battered women, as well as treatment programs for abusers, have increased public awareness. However, little attention, until recently, has been paid to children exposed to family violence. Intra-familial abuse, neglect, and domestic violence account for the majority of physical and emotional violence suffered by children in the United States (Carnegie Council on Adolescent Development, 1995; Lehmann, 2000). There is increasing concern that children who witness domestic violence may suffer negative social and emotional consequences, even though they are not necessarily the primary or intended victims (Kitzman, Gaylord, Holt, & Kenny, 2003).

There are serious implications of the effects of exposure to violence on children and families. Historically, a primary focus on perpetrator and victim left many children's needs overlooked. Current research documents children's responses to various violent and/or traumatic events such as war, political repression, sexual abuse, and community violence (Amaya-Jackson & March, 1995; Berliner, 1997; Pynoos, Steinberg, & Goenjian, 1996). Fewer studies, however, examine the behavioral correlates of children who witness family violence, even though domestic violence occurs at a disproportionate rate in families with children (Fantuzzo, Boruch, Beriama, Atkins, & Marcus, 1997).

Additional research documents the behavioral responses of children exposed to community violence. In 2000, Dyregrov, Gupta, Gjestad, and Mukanoheli interviewed Rwandan children, age eight to 19 years, about their war experiences and reactions a year after the genocide began in that country. The authors found high levels of Post Traumatic Stress Disorder (PTSD) in the sample experiencing high levels of violence exposure. Garbarino, Dubrow, Kostelny, and Pardo (1992), examined children living in war torn areas around the world. Their results indicate

that exposure to violence, particularly violence that is chronic in nature, interferes with moral development, the capacity to attach, trust others, focus, and concentrate.

Research in the field of youth exposure to violence distinguishes between two types of exposure, direct exposure or victimization, and indirect exposure or witnessing (Buka, Stichick, Birdthistle, & Earls, 2001). Victimization is generally defined as an intentional act or acts initiated by one person to cause another harm. The definition of witnessed violence is less generally agreed upon. Some researchers refer specifically to an event that is eye witnessed involving death, injury, or threat to the physical integrity of another person (Shakoor & Chalmers, 1991). Others have applied less strict criteria for witnessed violence, for example hearing violent events take place (Campbell & Schwarz, 1996), viewing violence on television and in movies (Cooley-Quille, Turner, & Beidel, 1995), or having knowledge of another's victimization (Bell & Jenkins, 1993).

Appell and Holden (1998) find, in their analysis of clinical samples of either battered women or physically abused children, the percentage of overlap between domestic violence and child physical abuse to be approximately 40%. Families in which violence occurs often have multiple forms of stress that also can impact the child. For example, compared with the general population, families characterized by domestic violence are likely to experience higher levels of stress, have a lower income, move more frequently, are younger and less well educated, and have higher rates of alcohol problems than families who do not experience family violence (Fantuzzo, et al., 1997; Jaffe, Hurley, & Wolfe, 1990.) Fathers in co-occurrence families (i.e., both abuse and domestic violence present) are much more likely to maltreat a child than fathers in families of non-battered mothers (O'Keefe, 1995). Male children are at a greater risk for physical abuse than female children in co-occurrence families (Ross, 1996) and males experience more frequent and severe physical abuse, by both mothers and fathers, than females when the battering is extreme (Jouriles & Norwood, 1995).

The experience of child abuse has been associated with many adverse emotional and behavioral outcomes including the development of both internalizing and externalizing symptomatology (Panel on Research on Child Abuse and Neglect, 1993). Witnessing violence in the neighborhood has also been associated with negative behavioral outcomes such as posttraumatic stress disorder, emotional distress, depression, fear, somatic complaints, aggression, and social withdrawal (Fitzpatrick & Boldizar, 1993; Richards & Martinez, 1993). Some studies assessing the behavior of children who have witnessed domestic violence suggest that these children exhibit symptoms similar to children who have been physically abused (Hughes, 1988; Hughes, Parkinson, & Vargo, 1989), while others have not (Johnson, et al., 2002). The contrast in findings may be due to variations in recruitment sample (e.g., shelter versus community) as well as method of data collection (e.g., maternal versus self report data).

Several hypotheses predict the adjustment of abused children. One set of predictions is based on social learning theory and suggests that due to their learning experiences, abused children are more aggressive than their peers (Emery, 1989). Other theories focus on the caregiver-child relationship, particularly disruptions in patterns of attachment (Egeland & Farber, 1984). In some studies, abused children have been found to have insecure attachments to their mothers (Schneider-Rosen & Cicchetti, 1984). Maternal behaviors related to maltreatment are associated with an infant's security of attachment, maternal hostility stemming from infant avoidance of the mother after a brief separation, and a lack of responsive maternal communication as a result of infant resistance or mixed avoidance and resistance (Lyons-Ruth, Connell, Zoll, & Stahl, 1987). Research also indicates that insecurely attached, abused children show more delays in a variety of areas of development in comparison to securely attached, abused children (Egeland & Farber, 1984; Schneider-Rosen & Cicchetti, 1984).

The relationship between abuse and behavioral outcomes may also be influenced by children's cognitions, including attributions about the abuse, and the use of coping strategies. Children's cognitions and coping have been associated with children's adjustment to stressful

events including medical procedures (Blount, Bachanas, Powers, Cotter, Franklin, Chaplin, Mayfield, Henderson, & Blount, 1992) and chronic illness (Lewis & Kliever, 1996). Behavioral outcomes in cases of abuse are thought to vary depending on whether the child attributes the abuse to internal or external factors, global or specific factors, and controllable or uncontrollable factors (Valle & Silvosky, 2002). Internal attributions are beliefs that an event was caused by one's own behavior or characteristics. External attributions are beliefs that an event was the responsibility of someone or something else. Stability refers to whether the causes of the event are temporary or permanent. The specificity of factors considers whether the causes of the event are considered situational or general in nature. Controllability refers to whether or not the cause of events is perceived to be under the person's control (Weiner, 1986).

In considering the impact of exposure to family violence, the importance of social context cannot be underestimated. The child needs to be understood within the broader framework in which they develop. The child is embedded within a family that is further embedded in a larger social system. Thus, behavior does not occur in a vacuum. Early patterns of adaptation or maladaptation influence later adaptation, but this does not typically occur in a linear form. There are likely a number of interacting variables involved in violence exposure related to child development (Sternberg et.al., 1993).

In assessing children's reactions to direct victimization or exposure to violence, a number of individual, family, and community factors are identified as potential moderators. These include age of the child (Hughes, 1988; Wolfe, Jaffe, Wilson, & Zak, 1985), gender (Fitzpatrick & Boldizar, 1993; Richters & Martinez, 1993b), caregiver demographics (Fitzpatrick & Boldizar, 1993; Richters & Martinez, 1993b), and family structure (Richters & Martinez, 1993b).

Inconsistencies in response patterns among children exposed to family violence have led researchers to call for studies that compare the behaviors and adjustment of children of battered women to children who have been physically abused. Understanding the similarities and differences between these groups of children, the relative contribution of witnessing violence,

being a recipient of violence, and living in the presence of both of these stressors is important for the development and implementation of effective treatment interventions (Holden & Ritchie, 1991).

Statement of Purpose

The present study adds to the growing literature on the behavioral outcomes of children exposed to family violence by building on the work of Sternberg et al. (1993). More specifically, the behavioral similarities and differences among children who are physically abused, witness family violence, or are both witnesses and recipients of abuse were explored. This study further considered whether behavioral outcomes vary as a function of children's age and gender by utilizing both maternal and child self report data. This investigation also explored characteristics of the mother. For example, maternal stress was examined to determine if this is a mediating variable that buffers the effects of violence or exposure to violence for children.

The study utilized data from the Family Enrichment Program at Morristown Memorial Hospital. The Family Enrichment Program, funded by the Division of Youth and Family Services (DYFS) of Morris County, New Jersey, provides evaluation and treatment for families involved in various types of family violence. Upon referral to the Family Enrichment Program, members of the family participate in forensic psychological evaluations. These evaluations, from the years 2000-2003, provided the data for this study.

Research Questions/Hypotheses

1. Are there behavioral similarities/differences among children who are physically abused, witness domestic violence, or are both abused and witnesses?

It is hypothesized that children who are both abused and witnessed violence, because they experience multiple forms of abuse, have higher levels of externalizing and internalizing problems, than those experiencing either form of violence solely, because they experience multiple forms of abuse. Further, it is predicted that abused children and

those who are solely witnesses to abuse will show similar levels of externalizing and internalizing problems.

2. Do the behavioral characteristics of children exposed to violence differ as a function of children's gender?

Based on previous research, it is hypothesized that, overall, males experience more behavioral problems than females, except in the domestic violence witness group. In this group, it is predicted that females experience greater problems than males due to the prevalence of adult female victims that serve as models to female children.

3. Do the behavioral characteristics of children exposed to violence differ as a function of children's age?

Based on previous research, it is hypothesized that children in their pre-teen and teenage years experience more significant behavioral problems than younger children.

4. Is maternal parenting stress level a mediating variable with regard to children's behavioral characteristics subsequent to directly and/or indirectly experiencing family violence?

It is hypothesized that children whose mothers have lower levels of parental stress experience fewer behavioral problems than those children whose mothers report higher levels of parental stress.

CHAPTER TWO

Literature Review

This chapter offers a review of the current literature in the field of family violence. Descriptions and findings from studies examining the impact of exposure to violence are presented. Several theories are examined which explore the pathways from exposure to violence to children's behavioral outcomes. The variables of interest in this study (e.g., level of exposure to violence, age, gender, maternal stress level) are also discussed in the context of contemporary research literature.

Direct versus Indirect Exposure to Violence

Research on the effects of violence often compares forms of exposure, primarily mode of exposure (e.g., direct victimization, witnessing violence, living in dangerous communities) and locus (e.g., family versus community). Direct exposure to violence occurs when an individual is victimized or placed in immediate danger. Indirect exposure occurs when an individual is witness to violence, such as assault or abuse, or is in an environment of danger created by high levels of conflict (Buka, Stichick, Birdthistle, & Earls, 2001). A violent environment may lead to a general feeling that the probability of danger and harm is very high (Barbarin, Richter, & deWet, 2001). There is evidence that the impact of exposure to violence on children does not depend on mode of exposure. Direct and indirect exposure have essentially the same correlation with children's level of distress (Richters & Martinez, 1993). Why both forms of exposure offer similar levels of distress is unclear. Features other than physical harm and trauma may have differential impacts on children. For example, factors such as cognitive processing, that involve altered expectations about degree of control and vulnerability, may play a role (Barbarin, et al., 2001).

The effect of exposure to violence varies with the relationship of the target of violence to the child. Distress generally is greater when the violence is against a family member or friend as opposed to a stranger. Pynoos, Nader, Frederick, Gonda, and Stuber (1987) find that the most

severe reactions of kindergarten children to a sniping incident were among those children who were emotionally close to one of those killed. Physical proximity also contributes to increased levels of distress. Indeed, exposure to violence in the family has more detrimental effects than exposure to violence in the community (Osofsky, Wewers, Hann, & Fick, 1993).

Differences in the impact of exposure to violence may depend on the interpretations the child makes regarding the likelihood of future harm. Identification with the victim and feelings of empathy may also contribute to the emotional disruption the child experiences. In this respect, both direct and indirect exposure to violence may equally elicit children's expectations regarding future harm (Barbarin, et al., 2001).

Child Abuse

Statistics from the National Child Abuse and Neglect Data System report that over 2.8 million cases of child maltreatment were investigated in 1998 with 903,000 of these cases substantiated. Of the group of substantiated abuse and neglect cases, 25% were cases of physical abuse (U.S. Department of Health and Human Services, Administration on Children, Youth, and Families, 2000). Research in the field of child abuse has been hampered by the lack of consensus on an operational definition of abuse leading to variability in prevalence estimates, research outcomes, and legal practices. A variety of definitions have been presented based upon the nature of the act (e.g., intensity, duration), the physical or psychological impact on the victim, the intent of the perpetrator, situational influences, and/or community standards (Emery, 1989). Emery (1989) posits that the terms "abusive" and "violent" are not objective terms, but rather social judgments making it difficult to define what actually constitutes "abuse." He further suggests that one way to ensure that criteria for abuse is sufficiently stringent is to include determinations made by the courts or social service agencies in the formation of operational definitions.

Child physical abuse negatively impacts the emotional and behavioral adjustment of victims. Externalizing behaviors such as aggression and oppositional behavior (Dodge, Bates, & Pettit, 1990), as well as internalizing behaviors such as anxiety and depression (Spaccarelli &

Kim, 1995), have been documented. In 1993, Eckenrode, Laird, and Doris reported the results of their study in which 424 maltreated children were compared to a group of matched controls on measures of school performance and disciplinary problems. Results suggest that child abuse and neglect represent a significant risk factor for poor academic performance, grade repetition, and discipline problems.

Johnson, Kotch, Catellier, Winsor, Dufort, Hunter, and Amaya-Jackson (2002) examined the mental health outcomes of 167 children who were physically abused or witnessed domestic violence. Participants were part of a longitudinal study on child maltreatment. Outcomes were based on parental report on the Child Behavior Checklist and self-report of the children on the Trauma Symptom Checklist for Children. When compared to matched controls, children who experienced physical abuse exhibited more adverse behavioral and emotional outcomes. Abuse was significantly associated with increased aggression and depression. Violence may also impact peer relationships in the form of emotional withdrawal and aggressive behaviors. These in turn often lead to rejection by peers (Cooleyquille, Turner, & Beidel, 1995).

Variability in adjustment following abuse is widely documented. While many studies show children exhibit severe adjustment and behavioral problems following abuse, others show minimal to no reaction (Kendall, Tackett, Williams, & Finkelhor, 1993). No single behavioral outcome following abuse has been found. The response differences in expression of symptoms across individuals suggest that behavioral outcomes following abuse are multiply determined (Valle & Silovsky, 2002). Factors such as age of onset, severity of abuse, gender, and certain characteristics of the parent-child relationship likely play a role in determining long-term outcomes. Possibly, the experience of violence is not the principal factor contributing to the difficulties these children face, rather other aspects of the child's environment are damaging (Emery, 1989).

Studies of abusive families suggest that physically abusive parents differ from non-maltreating parents in both frequency and content of their emotional interactions with their

children. Compared with control parents, maltreating parents show less positive emotion (Bugental, Blue, & Lewis, 1990) and more negative emotion (Herrenkol, Herrenkol, Egolf & Wu, 1991). Maltreating families also tend to isolate themselves and their families from others, leaving their children exposed to fewer non-parental models of emotional communication (Salzinger, Feldman, Hammer, & Rosario, 1993).

Witnessing of Domestic Violence

There is evidence that witnessing community violence leads to increased levels of aggression. In a review of clinical studies assessing the effects of witnessed violence, Lyons (1987) finds that children who witness single, violent episodes report some Post Traumatic Stress Disorder (PTSD) symptomatology. Symptoms include diminished concentration, sleep disturbances, flashbacks, disordered attachment behavior, sudden startling, and hypervigilance.

In a study of 225 African American adolescents, Durant, Pendergrast, and Cadenhead (1994) find that previous exposure to violence is the strongest predictor of the use of violence on others. Exposure to violence explained 26.6% of the variation in the adolescent's use of violent behavior, compared to 3.8% for depression. The authors conclude that witnessing violence increases the risk of an adolescent using violence against others.

Witnessed violence is also associated with increased substance use and abuse. In a large community sample of adolescents (N=4,023), researchers find that witnessed violence is a strong risk factor for disorders related to substance use. The study controls for demographics, family substance abuse, and individual victimization, and still finds that exposure to violence tripled the risk of abuse or dependency for all substances (Kilpatrick, Aciero, Saunders, Resnick, Best, & Schnurr, 2000).

Research on children who witness domestic violence is much less extensive than research on children who are victims of physical abuse. Estimations suggest that between three and ten million children witness domestic violence each year (Peled, Jaffe, & Edelson, 1995). Exposure to domestic violence disrupts socialization, leading many researchers to consider this type of

exposure a form of child maltreatment (Kitzman et. al., 2003). In many families where domestic violence occurs, parents report trying to hide the abuse from their children, however research suggests that children in these homes often see, hear, and intervene in episodes of domestic violence (Fantuzzo et. al., 1997; Holden & Ritchie, 1991). Research on the effects of witnessing domestic violence provides variable results. Some studies reveal that children who observe or hear parental conflicts react with emotional disturbances or aggression (Cummings, Iannotti, & Zahn-Waxler, 1985), while others do not (Wolfe et.al, 1986).

Behavioral outcomes for witnesses to domestic violence can be explained using a family systems perspective. According to the theory, each member of a family plays a fundamental role in the system of interactions in the family (Minuchin, 1974). Cummings et. al. (1985) put forth a three step model to conceptualize children's responses to parental conflict. The model suggests that in the first stage the conflict serves as an aversive event that creates distress within the child. The child then reacts emotionally or instrumentally to alleviate the distress. Because of the child's behavior, the focus of the family conflict is temporarily shifted from inter-parental aggression to parent-child aggression. Actions that reduce the conflict are likely to be maintained because they serve the child as well as the family (Cummings, Zahn-Waxler, & Radke-Yarrow, 1984).

Expressions of anger between adults cause distress in children who witness them. Children as young as 12 months respond to anger not directed at them with signs of distress, including crying and increased aggression (Cummings, Zahn-Waxler, & Radke-Yarrow, 1984). This distress motivates the child to respond to the conflict, either emotionally or instrumentally. The child's response serves a function for both the child and family. Since the distress is aversive, responses that reduce levels of distress are negatively reinforced. One example of this process is termed scapegoating. In scapegoating, the parents are distracted from their own conflicts and drawn together in concern or anger toward the child. Scapegoating reduces family

conflict by shifting concern from a threatening marital problem to a less threatening child problem, thus maintaining family homeostasis (Minuchin, 1974).

From a family systems perspective, some responses to family violence that may be maladaptive for the child may be maintained because of their reinforcing value for the family. Children may directly elicit violence by engaging in noncompliant or aggressive behavior. Parents may also alternatively form coalitions with the child that can lead to conflict with the other parent. This triangulation of the child can attenuate marital violence temporarily, but may result in reciprocal parent-child aggression (Holden & Appel, 1998).

The Co-Occurrence of Child Abuse and Domestic Violence

Children whose parents engage in physical violence are also likely to be the victims of physical abuse (Holden & Appel, 1998). High rates of abusive parental behavior are found among both the perpetrators and victims of domestic violence (McGuigan, Vuchinich, & Pratt, 2000). The link between domestic violence and child abuse is not yet clearly defined, however some propose that the parents' negative cognitions about the child mediate the relationship. The act of domestic violence is proposed to promote a negative view of the child for parents, victims and perpetrators. The negative perceptions in turn increase the risk of participating in child abuse for both parents (McGuigan, Vuchinich, & Pratt, 2000).

There are certain parenting characteristics associated with an increased risk of child maltreatment. For example, abusive mothers find infant signals and cries more aversive than non-abusive mothers (Frodi & Lamb, 1980). Abusive parents also perceive their child's behavior more negatively than outside observers (Mash, Johnston, & Kovitz, 1983).

Child abuse occurs more frequently in homes with domestic violence than in homes without domestic violence present (Fantuzzo et. al., 1997; Hughes, 1988). There are possibly additive effects of being both a victim and a witness. Some preliminary studies on children who are, in a sense, doubly abused, indicate that these children experience more distress when

compared to children who are either solely victims of child abuse or only witnesses to domestic violence (Hughes, 1988; Hughes, Parkinson, & Vargo, 1989).

Hughes (1988) compared 95 abused and non-abused witnesses, living in a battered women's shelter, with 83 age matched controls on measures of self esteem, anxiety, depression, and behavioral problems. There were greater levels of distress in the abused witness group than in the comparison group, with non-abused witnesses falling at a moderate distress level in between the two groups. In contrast, Sternberg, Lamb, Greenbaum, and Cicchetti (1993) find no differences between being abused and an abused witness; both groups report more problems than the witness only group. The contrasting findings may be accounted for by the difference in sample recruitment. In Hughes's (1988) study, participants were living in a battered women's shelter as opposed to the community sample utilized in Sternberg et. al.'s (1993) study. There also may be differences in severity of violence or characteristics of shelter life that may impact children's level of adjustment. These findings suggest that other variables may play a role in children's adjustment following abuse.

Attachment

One theory about the means by which abuse impacts a child focuses on the parent-child relationship, particularly on disruptions in patterns of attachment. A critical step in human social and emotional development is the formation of attachment relationships between children and their parents. John Bowlby (1969) provides the most popular explanation of the processes involved in attachment. He stresses infants' innate ability to emit signals which adults are predisposed biologically to respond to. Consistent with the theory of evolution, infants' survival depends upon their ability to maintain closeness to protective adults. Infants rely on signals such as cries and smiles in order to gain the attention of adults who will protect them and meet their needs since these adults are thought to be biologically predisposed to respond to these signals. An important outcome of attachment formation is that infants direct their signals toward a small number of familiar individuals. Bowlby expands on his theory by outlining four developmental