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Parental Use of Corporal Punishment as Related to Family Environment, Psychological Well-Being, and Personality in College Students

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**PARENTAL USE OF CORPORAL PUNISHMENT AS RELATED TO FAMILY
ENVIRONMENT, PSYCHOLOGICAL WELL-BEING, AND PERSONALITY IN
COLLEGE STUDENTS**

by

Corrine E. Leary

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ABSTRACT

PARENTAL USE OF CORPORAL PUNISHMENT AS RELATED TO FAMILY ENVIRONMENT, PSYCHOLOGICAL WELL-BEING, AND PERSONALITY IN COLLEGE STUDENTS

Corrine E. Leary
Old Dominion University, 2003
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The association between use of corporal punishment as a disciplinary technique and specific aspects of the family environment was examined through surveying undergraduate students enrolled in psychology classes at Old Dominion University. Also investigated was the relationship between corporal punishment and certain affective and personality variables. The Conflict Tactics Scale CTSPC-CA was utilized to measure the level of corporal punishment experienced by all 274 participants. However, only those respondents with the 75 highest and 75 lowest corporal punishment scores were compared in statistical analyses. Results indicated a significant difference between the higher and lower corporal punishment groups on the variables of positive family affect, family conflict, parental relationship behaviors, family worries, depression, nonsupport, identity problems, and negative social relationships.

TABLE OF CONTENTS

	Page
LIST OF TABLES.....	v
 Chapter	
I. INTRODUCTION.....	1
NATIONAL FAMILY VIOLENCE SURVEYS.....	2
FAMILY ENVIRONMENT.....	4
AFFECTIVE OUTCOMES.....	5
PERSONALITY OUTCOMES.....	5
HYPOTHESES.....	6
II. METHOD.....	8
PARTICIPANTS.....	8
MEASURES.....	8
PROCEDURE.....	15
III. RESULTS.....	16
PRELIMINARY DIAGNOSTIC ANALYSES.....	16
DESCRIPTIVE INFORMATION.....	16
FAMILY ENVIRONMENT HYPOTHESES.....	16
AFFECTIVE OUTCOME HYPOTHESES.....	20
PERSONALITY OUTCOME HYPOTHESES.....	21
IV. CONCLUSIONS.....	24
CORPORAL PUNISHMENT SCORES.....	24
FAMILY ENVIRONMENT HYPOTHESES.....	25
AFFECTIVE OUTCOME HYPOTHESES.....	26
PERSONALITY OUTCOME HYPOTHESES.....	27
FAMILY ENVIRONMENT MEDIATION.....	27
COMMENTS.....	28
REFERENCES.....	30
APPENDIXES.....	33
A. BEHAVIOR RESPONSE INVENTORY.....	33
B. PARENTAL RELATIONSHIP INVENTORY.....	36
C. FAMILY INVENTORY.....	39
D. INVENTORY OF FEELINGS – A.....	41
E. INVENTORY OF FEELINGS – B.....	42
F. PERSONALITY INVENTORY.....	43
G. DEMOGRAPHIC WORKSHEET.....	46

Page

VITA.....47

LIST OF TABLES

Table	Page
1. Demographic Characteristics of Study Participants.....	9
2. Means and Standard Deviations of Study Variables for All Participants (N = 274), Lower Corporal Punishment Group (n = 75), and Higher Corporal Punishment Group (n = 75).....	17
3. Intercorrelations Among Family Environment Variables For All Participants (N = 274).....	18
4. Multivariate and Univariate Analyses of Variance for Family Environment Variables by Corporal Punishment Group (Lower vs. Higher).....	19
5. Multivariate and Univariate Analyses of Variance for Affective Outcome Variables by Corporal Punishment Group (Lower vs. Higher).....	20
6. Intercorrelations Among Personality Outcomes Among All Participants (N = 274).....	21
7. Multivariate and Univariate Analyses of Variance for Personality Outcome Variables by Corporal Punishment Group (Lower vs. Higher).....	22

CHAPTER I

INTRODUCTION

As defined by Straus, corporal punishment is the legally permissible use of non-deadly force toward a child with the intent of causing pain in order to correct or control the child's behavior (Straus, 1991; Straus & Donnelly, 2001). Parents, and even most educators, in the United States have the lawful right to physically punish a child under their care. Ironically, an act defined as corporal punishment when perpetrated toward a child is delineated as assault when directed toward another adult (Straus & Donnelly, 2001).

According to the Cultural Spillover Theory, violence in one area of life extends to other aspects of everyday existence (Straus & Donnelly, 2001). Thus, the disciplinary utilization of physical punishment is a function of societal and environmental characteristics. These environmental characteristics in turn influence future use and societal opinions of corporal punishment. The Cultural Spillover Theory is supported by research findings that utilization of corporal punishment influences societal norms toward the further use of physical punishment (Straus & Donnelly, 2001).

The present research study investigated additional applications of the Cultural Spillover Theory. First, the author examined characteristics of the family environment associated with perpetration of corporal punishment. Second, the relationship

The *Publication Manual of the American Psychological Association* (5th ed.) was the journal model for this thesis.

between experiencing corporal punishment as a child and later adulthood affective and personality outcomes was explored.

National Family Violence Surveys

The National Family Violence Surveys were conducted in 1975 and 1985 to examine the prevalence and correlates of corporal punishment in American households. Whereas the 1975 survey consisted of one-hour face-to-face interviews in participants' homes, respondents in the 1985 National Family Violence Survey were interviewed via telephone (Straus, 1979; Straus & Donnelly, 2001; Straus & Gelles, 1990). All participants were head of household; one-half of the respondents were female and one-half were male (Straus & Donnelly, 2001). Participants were instructed to answer questions with regard to only one child living in the home; for families with more than one child, a target child was randomly selected (Straus & Donnelly, 2001).

According to the National Family Violence Surveys, 90% of American families use corporal punishment as a disciplinary technique (Straus & Donnelly, 2001; Straus & Gelles, 1990). This result is consistent with the findings of Bryan and Freed (1982) that 95% of children experience physical punishment at some point during their lifetime.

Although the term "spanking" refers to an open hand on a child's buttocks, considerable diversity exists in the way that parents physically punish their children. Per the National Family Violence Surveys, 55.7% of parents slap or spank their children, 30.6% of parents push, shove, or grab their children, 10.4% of parents hit their children with objects, and 3.2% of parents throw objects at their children (Straus & Donnelly, 2001; Straus & Gelles, 1990). It is important to consider that parents, and the law, deem these varied behaviors as acceptable disciplinary techniques.

The National Family Violence Surveys ascertained that prevalence of corporal punishment varies by age group. Whereas 60% of 10- to 12-year-olds are physically punished, only 25% of 17-year olds experience corporal punishment as a disciplinary technique (Straus & Donnelly, 2001; Straus & Gelles, 1990). The finding that younger children are more likely to be physically punished than older children has been supported in subsequent research studies, with a peak occurrence of corporal punishment occurring at 3- to 4-years of age (Rohner, Kean, & Courmoyer, 1991; Straus & Donnelly, 2001).

In order to examine the prevalence of corporal punishment across age groups, participants in the National Family Violence Surveys were asked how often they had utilized corporal punishment toward their children in the preceding year (Straus & Donnelly, 2001; Straus & Gelles, 1990). Researchers discovered that 12% of parents reported using corporal punishment once, 46% of parents stated they had employed corporal punishment two to seven times, and 42% of parents admitted utilizing corporal punishment eight or more times in the previous year (Straus & Donnelly, 2001; Straus & Gelles, 1990). The mean frequency of corporal punishment was 8.9 occurrences (Straus & Donnelly, 2001; Straus & Gelles, 1990).

The National Longitudinal Survey of Youth reported a higher frequency of corporal punishment than the National Family Violence Surveys. In the National Longitudinal Survey of Youth, mothers of children under six were asked how often they had employed corporal punishment in the previous week (Straus & Donnelly, 2001; Straus, Sugarman, & Giles-Sims, 1997). Two-thirds of mothers admitted to spanking their children three or more times (Straus & Donnelly, 2001; Straus et al., 1997). Thus, the National Longitudinal Survey of Youth found that the majority of parents used

corporal punishment an average of 150 times per year (Straus & Donnelly, 2001)! This is compared to the yearly mean of 8.9 discovered by the National Family Violence Surveys (Straus & Donnelly, 2001; Straus & Gelles, 1990). The discrepancy between the yearly estimations of the National Family Violence Surveys and the National Longitudinal Survey of Youth may be the result of societal views of corporal punishment as an everyday occurrence. This viewpoint may cause yearly estimations of corporal punishment to fall short of its actual utilization (Straus & Donnelly, 2001).

Family Environment

Corporal punishment as a disciplinary method has been associated with various characteristics of the family environment. In Rohner et al.'s (1991) examination of the link between positive family affect and corporal punishment, participants rated the level of warmth, hostility, neglect, and rejection that they perceived in their family surroundings. Researchers discovered that individuals who experienced corporal punished reported more rejection and less warmth from family members than respondents who were not physically punished (Rohner et al., 1991).

Due to a lack of subsequent research studies investigating the relationship between corporal punishment and the family environment, six measures of family life were examined in the present study. These variables include: family involvement at holidays and special events, positive family affect, sensitivity to family members' needs and feelings, family communication, family conflict, and conflict tactics utilized in the parental relationship.

Affective Outcomes

Research has linked affective variables, such as depression and anxiety, to the utilization of corporal punishment (Bryan & Freed, 1982). According to the National Family Violence Surveys, adults who were corporally punished have a higher rate of depressive symptoms compared to adults whose parents did not use physical punishment (Straus, 1979, 2000; Straus & Donnelly, 2001; Straus & Gelles, 1990). In fact, young men who experienced corporal punishment as adolescents reported 23% more depressive symptoms than males who were not corporally punished as teenagers (Straus & Donnelly, 2001).

Suicidal ideation is also associated with the use of corporal punishment. The National Family Violence Surveys discovered that corporally punished adolescents are more likely to contemplate suicide than adolescents who did not experience physical punishment (Straus & Donnelly, 2001; Straus & Gelles, 1990). Subsequent research of Straus and Kantor (1994) supported the conclusion that corporal punishment, especially in female adolescents, is associated with increased suicidal ideation.

Personality Outcomes

Although an increasing number of researchers are examining corporal punishment, little research has focused on the relationship between physical punishment and personality development. An exception is a study conducted by Rohner et al. (1991). Rohner and colleagues (1991) utilized the Personality Assessment Questionnaire to examine the relationship between adult psychological adjustment and the use of childhood corporal punishment. Researchers discovered that the perpetration of physical

punishment on children is associated with later-life problems in psychological adjustment.

The 1975 and 1985 National Family Violence Surveys examined the relationship between physical punishment and the personality characteristic of perceived rejection. Both surveys found that adolescents with a history of corporal punishment reported greater alienation throughout life compared to adolescents who did not experience corporal punishment (Straus & Donnelly, 2001; Straus & Gelles, 1990). Similarly, Bryan and Freed (1982) found an association between the use of physical punishment and negative social interactions, including fewer friends and a greater likelihood of aggressive behavior during adulthood.

Six personality measures were examined in the current study in order to further investigate the relationship between physical punishment and personality development. These variables include: level of warmth in participants' personality, dominance of participants' personality, perceived nonsupport, identity problems, negative social interactions, and social detachment.

Although some investigators have examined the relationship between corporal punishment and psychological outcomes during adulthood, the majority of research in this area has been limited to depression, anxiety, and perceived rejection. The present study expanded on prior research by exploring diverse psychological and family variables as related to outcomes for young adults.

Hypotheses

Family environment. The Cultural Spillover Theory maintains that violence in one area of life impacts other aspects of life. Based on this premise, it was hypothesized

that compared to a lower level of physical punishment, a higher level of corporal punishment would be associated with poorer family involvement, less positive family affect, lower sensitivity to the feelings of others, and worse family communication. It was also hypothesized that individuals who experienced a higher level of corporal punishment would report greater family conflict and more negative relationship behaviors between their parents than respondents who experienced a lower level of corporal punishment in the home.

Affective outcomes. Based on previous research findings, it was hypothesized that greater depressive and anxiety symptoms would be reported by young adults who experienced a higher level of physical punishment than by participants who experienced a lower level of corporal punishment.

Personality outcomes. Prior research on the association between corporal punishment and personality development led to the hypothesis that a higher level of corporal punishment would be related to less warm and less dominant personalities compared to a lower level of physical punishment. It was also hypothesized that compared to a lower level of corporal punishment, individuals who experienced a higher level of physical punishment would report greater levels of nonsupport, increased identity problems, more negative relationships, and greater social detachment.

CHAPTER II

METHOD

Participants

Participants consisted of a convenience sample of 274 undergraduate students (52 males, 222 females) enrolled in psychology courses at Old Dominion University. All participants spoke English as their first language and were raised in two-parent homes. Although 274 students completed the survey, to test the hypotheses, only data from participants with the 75 lowest and 75 highest corporal punishment scores were compared. The lower and higher corporal punishment groups did not differ in gender composition or age. Demographic information on the sample is presented in Table 1. The College of Sciences review board at Old Dominion University approved the study prior to data collection.

Materials

Revised Conflict Tactics Scales (CTS; Straus, Hamby, Finkelhor, Boney-McCoy, Sugarman, 1995; Straus, Hamby, Finkelhor, Moore, & Runyan, 1995). Two scales from the CTS were used to measure the level of violence in participants' families. For both scales, respondents answered questions pertaining to events that occurred prior to age 18. Separate questions assessed mothers' behavior and fathers' behavior.

The CTSPC-CA was administered to measure parental behavior towards the participant (see Appendix A). Respondents rated how often their parents performed specific behaviors towards them from: 0) never, to 6) more than 20 times a year. The CTSPC-CA contains 44 items (e.g., "Mother shook me"; "Father cursed or swore at

Table 1

Demographic Characteristics of Study Participants

Characteristic	All (%)*	Lower (%)**	Higher (%)**
Gender			
Male	52 (19.0)	13 (17.3)	18 (24.0)
Female	222 (81.0)	62 (82.7)	57 (76.0)
Age			
18	54 (19.7)	16 (21.3)	19 (25.3)
19	70 (25.5)	21 (28.0)	16 (21.3)
20	36 (13.1)	9 (12.0)	11 (14.7)
21	58 (21.2)	14 (18.7)	13 (17.3)
22	17 (6.2)	6 (8.0)	4 (5.3)
23	19 (6.9)	7 (9.3)	4 (5.3)
24	5 (1.8)	0 (0.0)	1 (1.3)
25	8 (2.9)	2 (2.7)	4 (5.3)
26	6 (2.2)	0 (0.0)	3 (4.0)
Race			
American Indian	3 (1.1)	1 (1.3)	2 (2.7)
Asian	11 (4.0)	1 (1.3)	5 (6.7)
Black	72 (26.3)	12 (16.0)	22 (29.3)
Hispanic	7 (2.6)	3 (4.0)	2 (2.7)
Pacific Islander	1 (0.4)	0 (0.0)	0 (0.0)
White	168 (61.3)	56 (74.7)	40 (53.3)

Table 1 (continued)

Demographic Characteristics of Study Participants

Characteristic	All (%)*	Lower (%)**	Higher (%)**
Race			
Multiracial	12 (4.4)	2 (2.7)	4 (5.3)
Level of education			
Freshman	87 (31.8)	26 (34.7)	26 (34.7)
Sophomore	60 (21.9)	17 (22.7)	15 (20.0)
Junior	60 (21.9)	13 (17.3)	19 (25.3)
Senior	56 (20.4)	15 (20.0)	14 (18.7)
Post-bachelor's	10 (3.6)	4 (5.3)	1 (1.3)
Living arrangement			
Dormitory	72 (26.3)	17 (22.7)	28 (37.3)
In parent's home	104 (38.0)	31 (41.3)	20 (26.7)
On own	78 (28.5)	23 (30.7)	23 (30.7)
Other	20 (7.3)	4 (5.3)	4 (5.3)
Marital status			
Single	257 (93.8)	71 (94.7)	68 (90.7)
Married	12 (4.4)	4 (5.3)	5 (6.7)
Separated	1 (0.4)	0 (0.0)	0 (0.0)
Divorced	3 (1.1)	0 (0.0)	2 (2.7)
Widowed	1 (0.4)	0 (0.0)	0 (0.0)

Note. N = 274. n = 75.

me”). A total corporal punishment score was calculated from the 24 items relating directly to physical punishment. Higher scores represent a greater level of corporal punishment in the home. Cronbach’s alpha for the CTSPC-CA varies with questionnaire versions from .41 to .96 (Straus & Donnelly, 2001).

The CTS2-CA was employed to measure recollections of parental relationship behaviors (see Appendix B). Sample items include: “Mother showed she cared about father even when they disagreed” and “Father explained his side of disagreement to mother.” Respondents rated how often their parents performed specific behaviors from: 0) never, to 6) more than 20 times a year. The CTS2-CA is comprised of 62-items. A total parental relationship behavior score was computed after reverse scoring 12 items; higher scores represent more negative behavior. Cronbach’s alpha varies with questionnaire versions from .41 to .96 (Straus & Donnelly, 2001).

Family Functioning Scale (FFS; Tavitian, Lubiner, Green, Grebstein, & Velicer, 1987). The FFS is a 40-item questionnaire measuring five dimensions of family life (see Appendix C). Each of the five subscales is comprised of 8 items rated on a 5-point scale from: 1) never, to 5) always.

The Family Ritual (FR) subscale of the FFS was employed to assess family involvement. Sample items include: “Birthdays are important events in my family” and “Our family spends holidays together.” A total family ritual score for each participant was calculated. Higher scores represent a more involved and supportive family environment. Tavitian et al. (1987) reports alphas for the Family Ritual subscale from .66 to .69.

The Positive Family Affect (PFA) subscale of the FFS was administered to assess mutual respect and family support. Positive family affect items include: “People in my family do not care enough about what I need” and “My family accepts me as I am.” A total positive family affect score was computed for each respondent after reverse scoring 4 items. Higher scores reflect a more supportive family environment. Alphas for the Positive Family Affect subscale of the Family Functioning Scale have been reported from .90 to .91 (Morrow, 2001; Tavitian et al., 1987).

The Family Worries (FW) subscale of the FFS measures level of empathy and family involvement in the family environment (e.g., “When someone in my family is angry, I feel worried”; “It is important to know the moods of certain family members”). A total family worries score was computed for each participant; higher scores represent a greater degree of sensitivity to the feelings and emotions of other family members. Tavitian et al. (1987) reports alphas from .62 to .65 for the Family Worries subscale.

The Family Communication (FCM) subscale of the FFS was utilized to examine verbal and nonverbal family communication. Sample items include: “I let my family know when I am sad” and “People in my family discuss their problems with me.” A total family communication score for each participant was computed. Higher scores represent a greater level of communication in the family. Prior research has demonstrated alphas for the Family Communication subscale of .76 to .84 (Morrow, 2001; Tavitian et al., 1987).

The Family Conflict (FC) subscale of the FFS was used to measure level of family conflict. Sample items include: “The children in my family fight with each other” and “People in my family have to be reminded when they are asked to do something.”

Each respondent received a total family conflict score with higher scores representing a greater level of family conflict. Previous research reports alphas for the Family Conflict subscale of .72 and .82 (Morrow, 2001; Tavitian et al., 1987).

Center for Epidemiologic Studies – Depression (CES-D; Radolff, 1977). The CES-D was utilized to measure current depressive symptoms (see Appendix D). Participants rated the 20 items on a 4-point scale (from “rarely or none of the time” to “most or all of the time”); higher ratings reflect greater depressive symptoms. A total depression score for each participant was computed after reverse scoring 4 items. In contrast to other widely used inventories of depression, the CES-D assesses sub-clinical levels of depression (e.g., “I had trouble keeping my mind on what I was doing”; “I felt that everything I did was an effort”). Previous studies demonstrate an alpha of .87 for the CES-D (Kelley et al., 2002).

Self-Analysis Form (Kremen, 1990). The Self-Analysis Form measures current symptoms of anxiety (see Appendix E). Sample items include: “I am often nervous for no reason” and “I would describe myself as a tense person.” Respondents rated how frequently each item occurred during the past month from: 1) never, to 5) always. After reverse scoring two items, a total anxiety score was computed. Higher anxiety scores reflect a greater presence of anxiety symptoms. Previous research has demonstrated an alpha of .88 for the Self-Analysis Form (Kelley et al., 2002).

Personality Assessment Inventory (PAI; Morey, 1991). The Personality Assessment Inventory was utilized to measure a variety of personality factors (see Appendix F). For all subscales, items are rated on a 4-point scale from: F) false, not at all true, to VT) very true. Specifically, the Warmth (WRM) scale of the PAI was utilized

to describe level of warmth in participants' personality. The 12 items are rated to reflect how well they describe the respondent (e.g., "I'm a very sociable person"; "It's easy for me to make new friends"). Higher scores represent a more dependent and warm personality. A total warmth score was computed for each participant. Morey (1991) reported an alpha of .80 for a college student sample.

The Dominance (DOM) scale of the PAI uses 12 items to measure the respondents' perceptions of interpersonal relationships. Individuals with dominant personality types generally score higher on the PAI as compared to individuals with less dominant personality types. Sample items include: "I'm a natural leader" and "I would be good at a job where I tell others what to do." A total dominance score was computed for each participant. An alpha of .81 has been reported for the DOM scale in a college student sample (Morey, 1991).

The Nonsupport (NON) scale of the PAI was administered to assess perceived lack of social support. The 8 items are rated with elevated scores reflecting a less supportive environment. Sample items include: "My friends are available if I need them" and "I like being around my family." A total nonsupport score was computed for each participant. Morey (1991) reported an alpha of .75 for a college sample.

In addition, two subscales from the Borderline scale of the PAI were employed. The Identity Problem (BOR-I) subscale was used to measure respondents' level of identity problems. The 6 items are rated to reflect how well each statement describes the individual (e.g., "My attitude about myself changes a lot"; "Sometimes I feel terribly empty inside"). Higher scores represent greater identity problems. A total identity

problem score was computed for each participant. An alpha of .65 for the BOR-I has been reported for a college student sample (Morey, 1991).

The Negative Relationship (BOR-N) subscale of the Borderline scale was used to measure respondents' perceptions of negative relationships. The 6 items are rated as to accuracy of the statement for the participant (e.g., "My relationships have been stormy"; "I want to let certain people know how much they have hurt me"). Higher scores reflect more negative relationships. A total negative relationship score was computed for each participant. An alpha of .67 has been reported for a college student sample (Morey, 1991).

The Social Detachment (SCZ-S) subscale of the Schizophrenia scale of the PAI was used to measure respondents' level of social detachment. The 8 items that measure social detachment are rated as to accuracy of the statement for the participant; higher scores represent greater social detachment. Sample items include: "I just don't seem to relate to people very well" and "I don't have much to say to anyone." A total social detachment score was computed for each participant. An alpha for the SCZ-S has been reported at .80 for a college student sample (Morey, 1991).

Demographics Questionnaire. In addition, respondents completed a demographic questionnaire designed to assess gender, age, education level, living arrangement, and marital status of participants (see Appendix G).

Procedure

Survey materials were acquired from the Research Participant Administrator's office at Old Dominion University. Respondents took the questionnaire with them, completed it, and returned the survey packet to the Research Participant Administrator.

CHAPTER III

RESULTS

Preliminary Diagnostic Analyses

Assumptions for the utilization of multivariate analysis of variance were addressed prior to inferential hypothesis testing. Large and equal sample sizes in the lower and higher corporal punishment groups allowed for both homogeneity and normality of the sample. There were no outliers present in the variables analyzed. A low percentage of missing cases, fewer than 5 %, allowed for missing information to be replaced with participant's mean score for that scale or subscale.

Descriptive Information

Before formal analyses, descriptive statistics were calculated for independent and dependent variables. Specifically, means and standard deviations were computed for the entire sample ($N = 274$), the lower corporal punishment group ($n = 75$), and the higher corporal punishment group ($n = 75$). Descriptive statistics are displayed in Table 2.

Family Environment Hypotheses

Prior to formal hypothesis testing, correlations were performed to examine for possible multicollinearity, that is excessively high correlations, among the subscales of the Family Functioning Scale. As can be seen in Table 3, all zero-order correlations were below .80. Therefore, Multiple Analysis of Variance (MANOVA) was an appropriate statistical technique to examine hypotheses related to family functioning.

Results of a one-way MANOVA examining the combination of family environment variables by corporal punishment group revealed a significant mean

Table 2

Means and Standard Deviations of Study Variables for All Participants (N = 274), Lower Corporal Punishment Group (n = 75), and Higher Corporal Punishment Group (n = 75)

Measure	<u>All</u>		<u>Lower</u>		<u>Higher</u>	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Corporal punishment	19.42	18.52	2.64	2.17	42.88	18.70
Parental relationship behavior	52.89	38.40	44.87	26.41	68.32	50.27
Family rituals	29.87	6.19	29.83	6.37	29.68	6.41
Positive family affect	34.07	5.82	35.16	5.11	31.05	6.23
Family worries	21.81	5.74	21.11	5.57	23.55	4.95
Family communication	23.63	6.62	23.49	6.36	22.15	6.02
Family conflict	19.83	5.15	18.25	4.61	22.72	5.30
Depression	16.00	10.92	14.37	9.69	20.83	12.53
Anxiety	34.23	11.17	34.83	11.71	36.61	12.50
Warmth	24.53	5.89	25.11	5.57	24.15	6.49
Dominance	22.62	6.17	22.17	6.18	22.51	6.55
Nonsupport	5.19	4.08	4.47	3.81	7.04	4.45
Identity problems	7.88	3.85	7.47	3.64	8.96	3.56
Negative relationships	7.39	3.46	6.53	3.14	8.85	3.68
Social detachment	5.10	3.93	4.76	3.86	6.03	4.52

Table 3

Intercorrelations Among Family Environment Subscales for All Participants (N = 274)

Subscale	1	2	3	4	5	6
1. Family rituals	--					
2. Positive family affect	.61**	--				
3. Family worries	.01	-.12*	--			
4. Family communication	.55**	.52**	.08	--		
5. Family conflict	-.41**	-.63**	.32**	-.30**	--	
6. Parental relationship behavior	-.37**	-.39**	.15*	-.26**	.49**	--

* $p < .05$. ** $p < .001$.

difference between the lower and higher corporal punishment groups, $F(6, 143) = 8.25$, $p < .001$, $\lambda = .743$, partial $\eta^2 = .26$, power = 1.00. Follow-up one-way Analyses of Variance (ANOVAs) were conducted for each dependent variable.

As shown in Table 4, the pattern of results supports hypotheses. Specifically, participants who experienced higher corporal punishment reported significantly less positive family affect (HCP; $M = 31.05$) than respondents who experienced lower corporal punishment (LCP; $M = 35.16$), $F(1, 148) = 19.48$, $p < .001$, partial $\eta^2 = .12$, power = .99. In addition, the higher corporal punishment group exhibited greater family conflict (HCP; $M = 22.72$) than the lower corporal punishment group (LCP; $M = 18.25$), $F(1, 148) = 30.36$, $p < .001$, partial $\eta^2 = .17$, power = 1.00. Lastly, participants who experienced higher levels of corporal punishment reported significantly more negative parental relationship behaviors (HCP; $M = 68.32$) compared to participants who

experienced lower levels of corporal punishment (LCP; $M = 44.87$), $F(1, 148) = 12.80$, $p < .001$, partial $\eta^2 = .08$, power = .95.

In contrast to what was predicted, participants who experienced higher corporal punishment reported significantly more family worries (HCP; $M = 23.55$) than respondents who experienced lower corporal punishment (LCP; $M = 21.11$), $F(1, 148) = 8.03$, $p < .01$, partial $\eta^2 = .05$, power = .80. No significant main effects were revealed for the variables of family rituals, $F(1, 148) = .02$, n.s., and family communication, $F(1, 148) = 1.77$, n.s.

Table 4

Multivariate and Univariate Analyses of Variance for Family Environment Variables by Corporal Punishment Group (Lower vs. Higher)

	<u>Lower</u>		<u>Higher</u>		<u>λ</u>	<u>F</u>	<u>p</u>
Subscales	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>			
Overall ^a					.743	8.25	.000
Family rituals ^b	29.83	6.37	29.68	6.41		.02	.888
Positive family affect ^b	35.16	5.11	31.05	6.23		19.48	.000
Family worries ^b	21.11	5.57	23.55	4.95		8.03	.005
Family communication ^b	23.49	6.36	22.15	6.02		1.77	.185
Family conflict ^b	18.25	4.61	22.72	5.30		30.36	.000
Parental relationship							
behavior ^b	44.87	26.41	68.32	50.27		12.80	.000

Note. ^aMultivariate df = 6, 143. ^bUnivariate df = 1, 148.

Affective Outcome Hypotheses

Prior to formal hypothesis testing, a correlational analysis was conducted to ensure that the constructs of depression and anxiety are not highly correlated. The resulting correlation was $r(274) = .64, p < .001$, rendering Multiple Analysis of Variance (MANOVA) as an appropriate statistical technique.

MANOVA results demonstrated a significant mean difference between participants who experienced higher and lower corporal punishment on the combination of affective outcomes, $F(2, 147) = 7.41, p < .005, \lambda = .908$, partial $\eta^2 = .09$, power = .94. Follow-up one-way Analyses of Variance were conducted for the dependent variables of depression and anxiety.

As shown in Table 5, there are mixed results for hypotheses. Participants who experienced higher corporal punishment reported significantly more depressive symptoms (HCP; $M = 20.83$) compared to participants who experienced lower corporal

Table 5

Multivariate and Univariate Analyses of Variance for Affective Outcome Variables by Corporal Punishment Group (Lower vs. Higher)

Subscales	<u>Lower</u>		<u>Higher</u>		<u>λ</u>	<u>F</u>	<u>p</u>
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>			
Overall ^a					.908	7.41	.001
Depression ^b	14.37	9.69	20.83	12.53		12.45	.001
Anxiety ^b	34.83	11.71	36.61	12.50		.82	.368

Note. ^aMultivariate df = 2, 143. ^bUnivariate df = 1, 148.

punishment (LCP; $M = 14.37$), $F(1, 148) = 12.45$, $p < .005$, partial $\eta^2 = .08$, power = .94.

In contrast to predictions, however, anxiety scores did not differ with level of corporal punishment, $F(1, 148) = .82$, n.s.

Personality Outcome Hypotheses

A correlational analysis was conducted to check for multicollinearity between personality subscale scores. As shown in Table 6, all zero-order correlations were below .80. Therefore, Multiple Analysis of Variance (MANOVA) was an appropriate statistical technique for hypotheses testing.

Results of a one-way MANOVA revealed a significant mean difference between participants who experienced higher and lower corporal punishment on the combination of personality subscales, $F(6, 143) = 3.95$, $p < .005$, $\lambda = .858$, partial $\eta^2 = .14$, power =

Table 6

Intercorrelations Among Personality Outcomes for All Participants (N = 274)

Outcomes	1	2	3	4	5	6
1. Warmth	--					
2. Dominance	.38**	--				
3. Nonsupport	-.48**	-.15*	--			
4. Identity problems	-.23**	-.31**	.41**	--		
5. Negative relationships	-.29**	-.15*	.50**	.58**	--	
6. Social detachment	-.70**	-.38**	.60**	.32**	.38**	--

* $p < .05$. ** $p < .001$.

.97. Follow-up one-way Analyses of Variance were conducted for each of the PAI variables.

As shown in Table 7, the pattern of results supports hypotheses. Specifically, participants who experienced higher corporal punishment reported significantly more nonsupport (HCP; $M = 7.04$) than respondents who experienced lower corporal punishment (LCP; $M = 4.47$), $F(1, 148) = 14.47$, $p < .001$, partial $\eta^2 = .09$, power = .97. In addition, respondents who experienced a higher level of corporal punishment reported significantly more identity problems (HCP; $M = 8.96$) compared to individuals who

Table 7

Multivariate and Univariate Analyses of Variance for Personality Outcome Variables by Corporal Punishment Group (Lower vs. Higher)

Subscales	<u>Lower</u>		<u>Higher</u>		<u>λ</u>	<u>F</u>	<u>p</u>
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>			
Overall ^a					.858	3.95	.001
Warmth ^b	25.11	5.57	24.15	6.49		.95	.332
Dominance ^b	22.17	6.18	22.51	6.55		.10	.749
Nonsupport ^b	4.47	3.81	7.04	4.45		14.47	.000
Identity problem ^b	7.47	3.64	8.96	3.56		6.45	.012
Negative relationship ^b	6.53	3.14	8.85	3.68		17.25	.000
Social detachment ^b	4.76	3.86	6.03	4.52		3.41	.067

Note. ^aMultivariate df = 6, 143. ^bUnivariate df = 1, 148.

experienced lower levels of corporal punishment (LCP; $M = 7.47$), $F(1, 148) = 6.45$, $p < .05$, partial $\eta^2 = .04$, power = .71. Also, participants who experienced higher corporal punishment reported significantly more negative relationships (HCP; $M = 8.85$) compared to participants who experienced lower corporal punishment (LCP; $M = 6.53$), $F(1, 148) = 17.25$, $p < .001$, partial $\eta^2 = .10$, power = .99.

In contrast to what was predicted, no significant differences were discovered between the higher and lower corporal punishment groups on the variables of warmth, $F(1, 148) = .95$, n.s., dominance, $F(1, 148) = .10$, n.s., or social detachment, $F(1, 148) = 3.41$, n.s.

CHAPTER 1V

CONCLUSIONS

The Cultural Spillover Theory (i.e., the contention that violence in one area of life extends to other facets of life) was applied in the present study to young adults who experienced corporal punishment as children (Straus & Donnelly, 2001). Previous research suggests a relationship between the utilization of corporal punishment as a disciplinary technique and negative childhood perceptions of the family environment (Rohner et al., 1991). These findings also maintained that childhood corporal punishment is associated with negative affective and personality outcomes during adulthood.

Corporal Punishment Scores

When calculated consistent with the 1985 National Family Violence Survey, mean corporal punishment scores for participants in the present study were 1.79 and .11 for the higher and lower corporal punishment groups, respectively. It is important to note that means for both groups are lower than those previously reported (Straus & Donnelly, 2001; Straus & Gelles, 1990). Specifically, the 1985 National Family Violence Survey maintained means of 2.45 for the higher corporal punishment group and 1.52 for the lower corporal punishment group (Straus & Donnelly, 2001; Straus & Gelles, 1990).

An additional discrepancy between the present study and the 1985 National Family Violence Survey concerns the distinction between higher and lower corporal punishment groups. Specifically, the present study obtained a mean difference of 1.68,

whereas the higher and lower corporal punishment groups in the 1985 National Family Violence Survey differed by an average of .93.

Differences between the present study and the 1985 National Family Violence Survey may reflect changing views of society. With recent decades, the belief that physical punishment is not an acceptable form of discipline has gained popularity (Straus & Donnelly, 2001). It is also possible that participants' parents possessed a greater awareness of alternative forms of discipline, as compared to the parents of participants in the 1985 National Family Violence Survey. Lastly, the discrepancy of findings between the present study and previous research may be attributed to parents recognizing physical discipline as an ineffective form of punishment.

Family Environment Hypotheses

Statistical analyses indicate that young adults who experienced higher corporal punishment as children reported growing up in less positive family environments than respondents who experienced lower corporal punishment. Specifically, participants in the higher corporal punishment group reported less positive family affect, increased family worries, greater family conflict, and more negative parental relationship behaviors than the lower corporal punishment group. These conclusions are similar to the findings of Rohner et al. (1991) that less positive family environments are associated with higher levels of corporal punishment.

In contrast to hypotheses, the higher and lower corporal punishment groups did not significantly differ on family rituals or family communication. A review of the data, however, reveals that mean differences for these variables, while not significant, were in the expected direction. Specifically, participants in the higher corporal punishment group

reported fewer family rituals (HCP; $M = 29.68$) and less family communication (HCP; $M = 22.15$) than individuals in the lower corporal punishment group (LCP; $M = 29.83$, $M = 23.49$). Due to incongruence of current results with previous research, it is clear that additional studies are needed to examine the possible relationships between corporal punishment and these aspects of the family environment.

Affective Outcome Hypotheses

Consistent with past research, statistical analyses demonstrated that individuals in the higher corporal punishment group reported more depressive symptoms than respondents who experienced lower levels of physical punishment (Bryan & Freed, 1982; Straus, 1979, 2000; Straus & Donnelly, 2001; Straus & Gelles, 1990). Thus, it appears that higher levels of corporal punishment during childhood may lead to greater manifestation of depressive symptoms in young adulthood.

As previously mentioned, the research of Bryan and Freed (1982) resolved that childhood experiences of corporal punishment are associated with greater adulthood anxiety symptoms. Contrary to both Bryan and Freed (1982) and to present hypotheses, the current study found that higher corporal punishment did not differ significantly from lower corporal punishment on levels of anxiety. However, means were in the expected direction. That is, individuals who experienced higher corporal punishment reported more anxiety (HCP; $M = 36.61$) than respondents who experienced lower physical punishment (LCP; $M = 34.83$). The discrepancy between prior research findings and results of the current study clearly validates further investigation of the relationship between anxiety and physical punishment.

Personality Outcome Hypotheses

As hypothesized, statistical analyses demonstrated that higher corporal punishment is associated with greater nonsupport, increased identity problems, and more negative social relationships than lower corporal punishment. Results from the present study are consistent with previous research findings demonstrating a relationship between childhood corporal punishment and adjustment problems during adulthood (Bryan & Freed, 1982; Rohner et al., 1991; Straus & Donnelly, 2001; Straus & Gelles, 1990).

In contrast to predictions, however, the higher corporal punishment group did not significantly differ from the lower corporal punishment group on the variables of warmth, dominance, and social detachment. Although no significant group differences were found, means were in the expected direction. Specifically, higher levels of corporal punishment were related to less warmth (HCP; $M = 24.15$) and greater social detachment (HCP; $M = 6.03$) than lower levels of corporal punishment (LCP; $M = 25.11$, $M = 4.76$). The inconsistency between previous findings and the current conclusions suggest that additional research is needed to address the relationship between physical punishment and the three personality outcomes of warmth, dominance, and social detachment.

Family Environment Mediation

Possible mediation of the relationship between corporal punishment and adulthood affective and personality outcomes by the family environment was examined through Multiple Analyses of Covariance. Although each family environment variable was tested as a possible covariate, only family worries, parental relationship behavior, positive family affect, and family conflict were significant covariates.

Both family worries, $F(8, 140) = 4.14, p < .001, \lambda = .809, \text{partial } \eta^2 = .19, \text{power} = .99$, and parental relationship behavior, $F(8, 140) = 3.39, p < .005, \lambda = .838, \text{partial } \eta^2 = .16, \text{power} = .97$, controlled affective and personality variables except depression, nonsupport, and negative relationships. Positive family affect controlled the effects of all variables except negative relationships, $F(8, 140) = 16.04, p < .001, \lambda = .522, \text{partial } \eta^2 = .48, \text{power} = 1.00$. The most powerful covariate was family conflict. Family conflict controlled all affective and personality outcome variables, $F(8, 140) = 11.24, p < .001, \lambda = .609, \text{partial } \eta^2 = .31, \text{power} = 1.00$.

It is apparent that family environment, in addition to the use of corporal punishment, impacts adulthood affective and personality outcomes. Thus, future research should address corporal punishment with regards to the family environment in which the physical punishment occurs.

Comments

Several strengths of the present study should be highlighted. First, it is one of a few large-scale studies that have addressed the relationship between childhood corporal punishment and psychological outcomes in young adulthood. Also, the measures utilized in the current study have previously been shown as psychometrically sound.

Certain limitations of this investigation should also be noted. Most importantly, all information was collected via self-report. This tends to present a subjective view of the respondents' childhood without any collaborating evidence. Future research should attempt to obtain corroboration from family members or from other objective sources.

The lack of generalizability of college students to the general public is another limitation of the current study. It is plausible that college students differ from their non-

college peers with regards to a more positive home life, greater resiliency, and more adept coping mechanisms. Therefore, college students may experience more positive personality outcomes from the use of corporal punishment than individuals raised with fewer resources. Clearly, it is important that additional research examine possible relationships between childhood corporal punishment and adulthood outcomes in both collegiate and non-college samples.

Convenience sampling resulted in both a gender and racial bias. It may be that society grooms specific genders and races to react differently to experiences with corporal punishment. For this reason, it would be interesting to compare the present results with a study representative of the target populations' gender and race.

An additional concern with the present study involves the delineation of a higher corporal punishment group. Considering that the current study's higher corporal punishment group differed from the 1985 National Family Violence Survey's low corporal punishment group by only an average of .28, it is possible that the present study's higher corporal punishment group represents a moderate level of corporal punishment. Thus, while the majority of hypotheses were supported, the higher corporal punishment group having experienced only a moderate level of physical punishment may account for some non-significant findings.

The field of psychology would benefit from further studies assessing the association between family environment and utilization of corporal punishment. Also important is further exploration into affective and personality correlates of corporal punishment use. Longitudinal studies with representative samples would be most advantageous to psychology and to future childrearing practices.

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APPENDIX A

BEHAVIOR RESPONSE INVENTORY

Children often do things that are wrong, disobey, or make their parents angry. We would like to know what your mother and father did when you did something wrong or did something that made them upset or angry, or when they were angry for other reasons.

Please mark one of the following statements to tell us who you were living with when you were 18-years-old and who your answers will be about.

- _____ I was living with both my mother and father (or stepmother and stepfather) and I will answer about them.
- _____ My father or stepfather was not living at home, but there was another man in the house, and I will answer about what he did when I did something wrong.
- _____ My mother or stepmother was not living at home, but there was another woman in the house, and I will answer about what she did when I did something wrong.

Here is a list of things your mother and father might have done. Please think about how often each of them did these things before you were 18-years-old and circle the number that comes closest to how often they did each of these things.

0 = Never	1 = Once	2 = Twice	3 = 3-5 times
4 = 6-10 times	5 = 11-20 times	6 = More than 20 times	

Mother

1. Mother explained why something was wrong.
0 1 2 3 4 5 6
2. Mother put me in "time-out" or sent me to my room.
0 1 2 3 4 5 6
3. Mother shook me.
0 1 2 3 4 5 6
4. Mother hit me on the bottom with something like a belt, a hairbrush, a stick, or some other hard object.
0 1 2 3 4 5 6
5. Mother gave me something else to do instead of what I was doing wrong.
0 1 2 3 4 5 6
6. Mother shouted, yelled, or screamed at me.
0 1 2 3 4 5 6
7. Mother hit me with a fist or kicked me hard.
0 1 2 3 4 5 6
8. Mother spanked me on the bottom with her hand.
0 1 2 3 4 5 6
9. Mother grabbed me around the neck and choked me.
0 1 2 3 4 5 6
10. Mother cursed or swore at me.
0 1 2 3 4 5 6
11. Mother beat me up by hitting me over and over as hard as she could.
0 1 2 3 4 5 6
12. Mother said she would send me away or kick me out of the house.
0 1 2 3 4 5 6
13. Mother burned or scalded me on purpose.
0 1 2 3 4 5 6

14. Mother threatened to spank or hit me but did not actually do it.
0 1 2 3 4 5 6
15. Mother hit me on some other part of the body besides the bottom with something like a belt, a hairbrush, a stick, or some other hard object.
0 1 2 3 4 5 6
16. Mother slapped me on the hand, arm, or leg.
0 1 2 3 4 5 6
17. Mother took away privileges or grounded me.
0 1 2 3 4 5 6
18. Mother pinched me.
0 1 2 3 4 5 6
19. Mother threatened me with a knife or gun.
0 1 2 3 4 5 6
20. Mother threw or knocked me down.
0 1 2 3 4 5 6
21. Mother called me dumb or lazy or some other name like that.
0 1 2 3 4 5 6
22. Mother slapped me on the face or head or ears.
0 1 2 3 4 5 6

Father

1. Father explained why something was wrong.
0 1 2 3 4 5 6
2. Father put me in "time-out" or sent me to my room.
0 1 2 3 4 5 6
3. Father shook me.
0 1 2 3 4 5 6
4. Father hit me on the bottom with something like a belt, a hairbrush, a stick, or some other hard object.
0 1 2 3 4 5 6
5. Father gave me something else to do instead of what I was doing wrong.
0 1 2 3 4 5 6
6. Father shouted, yelled, or screamed at me.
0 1 2 3 4 5 6
7. Father hit me with a fist or kicked me hard.
0 1 2 3 4 5 6
8. Father spanked me on the bottom with his hand.
0 1 2 3 4 5 6
9. Father grabbed me around the neck and choked me.
0 1 2 3 4 5 6
10. Father cursed or swore at me.
0 1 2 3 4 5 6
11. Father beat me up by hitting me over and over as hard as he could.
0 1 2 3 4 5 6
12. Father said he would send me away or kick me out of the house.
0 1 2 3 4 5 6
13. Father burned or scalded me on purpose.
0 1 2 3 4 5 6
14. Father threatened to spank or hit me but did not actually do it.
0 1 2 3 4 5 6
15. Father hit me on some other part of the body besides the bottom with something like a belt, a hairbrush, a stick, or some other hard object.
0 1 2 3 4 5 6
16. Father slapped me on the hand, arm, or leg.
0 1 2 3 4 5 6

17. Father took away privileges or grounded me.
0 1 2 3 4 5 6
18. Father pinched me.
0 1 2 3 4 5 6
19. Father threatened me with a knife or gun.
0 1 2 3 4 5 6
20. Father threw or knocked me down.
0 1 2 3 4 5 6
21. Father called me dumb or lazy or some other name like that.
0 1 2 3 4 5 6
22. Father slapped me on the face or head or ears.
0 1 2 3 4 5 6

APPENDIX B

PARENTAL RELATIONSHIP INVENTORY

No matter how well parents get along, there are times when they disagree, get annoyed with each other, want different things from each other, or just have spats or fights because they are in a bad mood, are tired, or for some other reason. Parents also have many different ways of trying to settle their differences with each other. This is a list of things that might happen when your parents had differences or were angry at each other.

If your mother and father were living together, please answer questions with regard to your biological parents.

If your mother and father were not living together and you were living with your mother, please answer questions with regard to your mother and the man she was with during the years before you were 18.

If your mother and father were not living together and you were living with your father, please answer questions with regard to your father and the woman he was with during the years before you were 18.

Please state in the blanks provided your relationship to the people that you will be answering questions in regard to.

Woman referred to: _____ Man referred to: _____

Please circle how many times each parent did the things on this list before you were 18-years-old.

0 = Never 1 = Once 2 = Twice 3 = 3-5 times
4 = 6-10 times 5 = 11-20 times 6 = More than 20 times

Mother

1. Mother showed she cared about father even when they disagreed.
0 1 2 3 4 5 6
2. Mother explained her side of a disagreement to father.
0 1 2 3 4 5 6
3. Mother insulted or swore at father.
0 1 2 3 4 5 6
4. Mother threw something at father that could hurt.
0 1 2 3 4 5 6
5. Mother twisted father's arm or hair.
0 1 2 3 4 5 6
6. Mother had a sprain, bruise, or small cut because of a fight with father.
0 1 2 3 4 5 6
7. Mother showed respect for father's feelings about an issue.
0 1 2 3 4 5 6
8. Mother pushed or shoved father.
0 1 2 3 4 5 6
9. Mother used a knife or gun on father.
0 1 2 3 4 5 6
10. Mother passed out from being hit on the head by father in a fight.
0 1 2 3 4 5 6
11. Mother called father fat or ugly.
0 1 2 3 4 5 6
12. Mother punched or hit father with something that could hurt.
0 1 2 3 4 5 6

13. Mother destroyed something belonging to father.
0 1 2 3 4 5 6
14. Mother went to a doctor because of a fight with father.
0 1 2 3 4 5 6
15. Mother choked father.
0 1 2 3 4 5 6
16. Mother shouted or yelled at father.
0 1 2 3 4 5 6
17. Mother slammed father against a wall.
0 1 2 3 4 5 6
18. Mother said she was sure they could work out a problem.
0 1 2 3 4 5 6
19. Mother needed to see a doctor because of a fight with father, but didn't go.
0 1 2 3 4 5 6
20. Mother beat up father.
0 1 2 3 4 5 6
21. Mother grabbed father.
0 1 2 3 4 5 6
22. Mother stomped out of the room or house or yard when she had a disagreement with father.
0 1 2 3 4 5 6
23. Mother slapped father.
0 1 2 3 4 5 6
24. Mother had a broken bone from a fight with father.
0 1 2 3 4 5 6
25. Mother suggested a compromise to a disagreement with father.
0 1 2 3 4 5 6
26. Mother burned or scalded father on purpose.
0 1 2 3 4 5 6
27. Mother did something to spite father.
0 1 2 3 4 5 6
28. Mother threatened to hit or throw something at father.
0 1 2 3 4 5 6
29. Mother felt physical pain that still hurt the next day because of a fight with father.
0 1 2 3 4 5 6
30. Mother kicked father.
0 1 2 3 4 5 6
31. Mother agreed to try a solution to a disagreement suggested by father.
0 1 2 3 4 5 6

Father

1. Father showed he cared about mother even when they disagreed.
0 1 2 3 4 5 6
2. Father explained his side of a disagreement to mother.
0 1 2 3 4 5 6
3. Father insulted or swore at mother.
0 1 2 3 4 5 6
4. Father threw something at mother that could hurt.
0 1 2 3 4 5 6
5. Father twisted mother's arm or hair.
0 1 2 3 4 5 6
6. Father had a sprain, bruise, or small cut because of a fight with mother.
0 1 2 3 4 5 6
7. Father showed respect for mother's feelings about an issue.
0 1 2 3 4 5 6

8. Father pushed or shoved mother.
0 1 2 3 4 5 6
9. Father used a knife or gun on mother.
0 1 2 3 4 5 6
10. Father passed out from being hit on the head by mother in a fight.
0 1 2 3 4 5 6
11. Father called mother fat or ugly.
0 1 2 3 4 5 6
12. Father punched or hit mother with something that could hurt.
0 1 2 3 4 5 6
13. Father destroyed something belonging to mother.
0 1 2 3 4 5 6
14. Father went to a doctor because of a fight with mother.
0 1 2 3 4 5 6
15. Father choked mother.
0 1 2 3 4 5 6
16. Father shouted or yelled at mother.
0 1 2 3 4 5 6
17. Father slammed mother against a wall.
0 1 2 3 4 5 6
18. Father said he was sure they could work out a problem.
0 1 2 3 4 5 6
19. Father needed to see a doctor because of a fight with mother, but didn't go.
0 1 2 3 4 5 6
20. Father beat up mother.
0 1 2 3 4 5 6
21. Father grabbed mother.
0 1 2 3 4 5 6
22. Father stomped out of the room or house or yard when he had a disagreement with mother.
0 1 2 3 4 5 6
23. Father slapped mother.
0 1 2 3 4 5 6
24. Father had a broken bone from a fight with mother.
0 1 2 3 4 5 6
25. Father suggested a compromise to a disagreement with mother.
0 1 2 3 4 5 6
26. Father burned or scalded mother on purpose.
0 1 2 3 4 5 6
27. Father did something to spite mother.
0 1 2 3 4 5 6
28. Father threatened to hit or throw something at mother.
0 1 2 3 4 5 6
29. Father felt physical pain that still hurt the next day because of a fight with mother.
0 1 2 3 4 5 6
30. Father kicked mother.
0 1 2 3 4 5 6
32. Father agreed to try a solution to a disagreement suggested by mother.
0 1 2 3 4 5 6

APPENDIX C

FAMILY INVENTORY

The following section asks questions about family life. It includes a variety of statements that describe families. Please use the following scale to fill in how each statement describes the family you grew up in.

A = Never

B = Almost never or rarely

C = Sometimes

D = Frequently or almost always

E = Always

1. Birthdays are important events in my family.
☐ A ☐ B ☐ C ☐ D ☐ E
2. The children in my family fight with each other.
☐ A ☐ B ☐ C ☐ D ☐ E
3. People in my family have to be reminded when they are asked to do something.
☐ A ☐ B ☐ C ☐ D ☐ E
4. People in my family do not care enough about what I need.
☐ A ☐ B ☐ C ☐ D ☐ E
5. Our family spends holidays together.
☐ A ☐ B ☐ C ☐ D ☐ E
6. Members of my family argue about money.
☐ A ☐ B ☐ C ☐ D ☐ E
7. My family accepts me as I am.
☐ A ☐ B ☐ C ☐ D ☐ E
8. When someone in my family is angry, I feel worried.
☐ A ☐ B ☐ C ☐ D ☐ E
9. People in my family listen when I speak.
☐ A ☐ B ☐ C ☐ D ☐ E
10. I worry when I disagree with the opinions of other family members.
☐ A ☐ B ☐ C ☐ D ☐ E
11. I feel respected by my family.
☐ A ☐ B ☐ C ☐ D ☐ E
12. We pay attention to traditions in my family.
☐ A ☐ B ☐ C ☐ D ☐ E
13. When things are not going well in my family, I feel sick.
☐ A ☐ B ☐ C ☐ D ☐ E
14. Our family celebrates special events, such as anniversaries and graduations.
☐ A ☐ B ☐ C ☐ D ☐ E
15. People in my family hit each other.
☐ A ☐ B ☐ C ☐ D ☐ E
16. When I have questions about personal relationships, I talk with family members.
☐ A ☐ B ☐ C ☐ D ☐ E
17. I let my family know when I am sad.
☐ A ☐ B ☐ C ☐ D ☐ E
18. The mood of one family member can spread to everyone in the house.
☐ A ☐ B ☐ C ☐ D ☐ E
19. I let family members know when I feel upset.
☐ A ☐ B ☐ C ☐ D ☐ E
20. People in my family yell at each other.
☐ A ☐ B ☐ C ☐ D ☐ E
21. My family sees me as a hopeless case.
☐ A ☐ B ☐ C ☐ D ☐ E
22. It is hard for me to forget painful events that have happened in my family.
☐ A ☐ B ☐ C ☐ D ☐ E

23. People in my family use my things without asking.
☐ A ☐ B ☐ C ☐ D ☐ E
24. In my family we talk about what is right and wrong with regard to sex.
☐ A ☐ B ☐ C ☐ D ☐ E
25. Family members are critical of each other's eating habits.
☐ A ☐ B ☐ C ☐ D ☐ E
26. When things are going wrong in my family someone gets blamed.
☐ A ☐ B ☐ C ☐ D ☐ E
27. In my family we talk about the physical changes that go along with growing up.
☐ A ☐ B ☐ C ☐ D ☐ E
28. I tell people in my family when I am angry with them.
☐ A ☐ B ☐ C ☐ D ☐ E
29. Family members eat at least one meal a day together.
☐ A ☐ B ☐ C ☐ D ☐ E
30. Family reunions are important to us.
☐ A ☐ B ☐ C ☐ D ☐ E
31. I have trouble sleeping when I think about family troubles.
☐ A ☐ B ☐ C ☐ D ☐ E
32. We are interested in the history of our family.
☐ A ☐ B ☐ C ☐ D ☐ E
33. I feel loved by my family.
☐ A ☐ B ☐ C ☐ D ☐ E
34. When things are not going well in my family it affects my appetite.
☐ A ☐ B ☐ C ☐ D ☐ E
35. I let my family know when I feel afraid.
☐ A ☐ B ☐ C ☐ D ☐ E
36. People in my family are not interested in what I do.
☐ A ☐ B ☐ C ☐ D ☐ E
37. It is important to know the mood of certain family members.
☐ A ☐ B ☐ C ☐ D ☐ E
38. I feel like a stranger in my own house.
☐ A ☐ B ☐ C ☐ D ☐ E
39. We are friendly with other families.
☐ A ☐ B ☐ C ☐ D ☐ E
40. People in my family discuss their problems with me.
☐ A ☐ B ☐ C ☐ D ☐ E

APPENDIX D

INVENTORY OF FEELINGS – A

Circle the number for each statement that best describes how often you felt or behaved this way during the past week.

0	1	2	3
Rarely or none of the time (1 day)	Some or a little of the time (1-2 days)	Occasionally or a moderate amount of time (3-4 days)	Most or all of the time (5-7 days)

During the past week:

- | | | | | | |
|-----|--|---|---|---|---|
| 1. | I was bothered by things that usually don't bother me. | 0 | 1 | 2 | 3 |
| 2. | I did not feel like eating; my appetite was poor. | 0 | 1 | 2 | 3 |
| 3. | I felt that I could not shake off the blues even with the help from my friends and family. | 0 | 1 | 2 | 3 |
| 4. | I felt that I was just as good as other people. | 0 | 1 | 2 | 3 |
| 5. | I had trouble keeping my mind on what I was doing. | 0 | 1 | 2 | 3 |
| 6. | I felt depressed. | 0 | 1 | 2 | 3 |
| 7. | I felt that everything I did was an effort. | 0 | 1 | 2 | 3 |
| 8. | I felt hopeful about the future. | 0 | 1 | 2 | 3 |
| 9. | I thought my life had been a failure. | 0 | 1 | 2 | 3 |
| 10. | I felt fearful. | 0 | 1 | 2 | 3 |
| 11. | My sleep was restless. | 0 | 1 | 2 | 3 |
| 12. | I was happy. | 0 | 1 | 2 | 3 |
| 13. | I talked less than usual. | 0 | 1 | 2 | 3 |
| 14. | I felt lonely. | 0 | 1 | 2 | 3 |
| 15. | People were unfriendly. | 0 | 1 | 2 | 3 |
| 16. | I enjoyed life. | 0 | 1 | 2 | 3 |
| 17. | I had crying spells. | 0 | 1 | 2 | 3 |
| 18. | I felt sad. | 0 | 1 | 2 | 3 |
| 19. | I felt that people disliked me. | 0 | 1 | 2 | 3 |
| 20. | I could not "get going." | 0 | 1 | 2 | 3 |

APPENDIX E

INVENTORY OF FEELINGS – B

Please circle the number for each statement that best describes how often you feel or behave this way.
 (Never) 1 2 3 4 5 (Always)

1. I am often nervous for no reason.
 1 2 3 4 5
2. I suffer from nervousness.
 1 2 3 4 5
3. I believe that I am no more nervous than most others.
 1 2 3 4 5
4. I would describe myself as a tense person.
 1 2 3 4 5
5. I must admit that I have at times been worried beyond reason over something that really did not matter.
 1 2 3 4 5
6. It makes me nervous to have to wait.
 1 2 3 4 5
7. I worry about terrible things that might happen.
 1 2 3 4 5
8. I often lose sleep over my worries.
 1 2 3 4 5
9. I am easily startled by things that happen unexpectedly.
 1 2 3 4 5
10. I often find myself worrying about something.
 1 2 3 4 5
11. I sometimes get myself into a state of tension and turmoil as I think of the day's events.
 1 2 3 4 5
12. There are days when I'm "on edge" all of the time.
 1 2 3 4 5
13. I am able to remain calm even though those around me worry.
 1 2 3 4 5
14. I am easily "rattled" at certain moments.
 1 2 3 4 5

APPENDIX F

PERSONALITY INVENTORY

Read each statement and decide if it is an accurate statement about you. Mark your answer by filling in one of the circles.

If the statement is FALSE, NOT AT ALL TRUE, fill in the F.

If the statement is SLIGHTLY TRUE, fill in the ST.

If the statement is MAINLY TRUE, fill in the MT.

If the statement is VERY TRUE, fill in the VT.

Give your own opinion of yourself. Be sure to answer every statement.

1. My friends are available if I need them.
☐ F ☐ ST ☐ MT ☐ VT
2. I'm a very sociable person.
☐ F ☐ ST ☐ MT ☐ VT
3. I'm a "take charge" type of person.
☐ F ☐ ST ☐ MT ☐ VT
4. My attitude about myself changes a lot.
☐ F ☐ ST ☐ MT ☐ VT
5. My relationships have been stormy.
☐ F ☐ ST ☐ MT ☐ VT
6. I just don't seem to relate to people very well.
☐ F ☐ ST ☐ MT ☐ VT
7. I like being around my family.
☐ F ☐ ST ☐ MT ☐ VT
8. It's easy for me to make new friends.
☐ F ☐ ST ☐ MT ☐ VT
9. I'm a natural leader.
☐ F ☐ ST ☐ MT ☐ VT
10. Sometimes I feel terribly empty inside.
☐ F ☐ ST ☐ MT ☐ VT
11. I want to let certain people know how much they've hurt me.
☐ F ☐ ST ☐ MT ☐ VT
12. I don't have much to say to anyone.
☐ F ☐ ST ☐ MT ☐ VT
13. If I'm having problems, I have people I can talk to.
☐ F ☐ ST ☐ MT ☐ VT
14. I like to meet new people.
☐ F ☐ ST ☐ MT ☐ VT
15. I would be good at a job where I tell others what to do.
☐ F ☐ ST ☐ MT ☐ VT
16. I worry a lot about other people leaving me.
☐ F ☐ ST ☐ MT ☐ VT
17. People once close to me have let me down.
☐ F ☐ ST ☐ MT ☐ VT
18. I'm a loner.
☐ F ☐ ST ☐ MT ☐ VT
19. I spend most of my time alone.
☐ F ☐ ST ☐ MT ☐ VT
20. I am a warm person.
☐ F ☐ ST ☐ MT ☐ VT

21. I have trouble standing up for myself.
O F O ST O MT O VT
22. I often wonder what I should do with my life.
O F O ST O MT O VT
23. I rarely feel very lonely.
O F O ST O MT O VT
24. I don't feel close to anyone.
O F O ST O MT O VT
25. Most people I'm close to are very supportive.
O F O ST O MT O VT
26. It takes me a while to warm up to people.
O F O ST O MT O VT
27. I feel best in situations where I am the leader.
O F O ST O MT O VT
28. I can't handle separation from those close to me very well.
O F O ST O MT O VT
29. I've made some real mistakes in the people I've picked as friends.
O F O ST O MT O VT
30. I enjoy the company of other people.
O F O ST O MT O VT
31. People I know care a lot about me.
O F O ST O MT O VT
32. It takes awhile for people to get to know me.
O F O ST O MT O VT
33. I prefer to let others make decisions.
O F O ST O MT O VT
34. I don't get bored very easily.
O F O ST O MT O VT
35. Once someone is my friend, we stay friends.
O F O ST O MT O VT
36. I like to be around other people if I can.
O F O ST O MT O VT
37. In my family, we argue more than we talk.
O F O ST O MT O VT
38. I try to include people who seem left out.
O F O ST O MT O VT
39. I say what's on my mind.
O F O ST O MT O VT
40. I usually do what other people tell me to do.
O F O ST O MT O VT
41. I make friends easily.
O F O ST O MT O VT
42. I spend little time with my family.
O F O ST O MT O VT
43. I'm an affectionate person.
O F O ST O MT O VT
44. People listen to my opinions.
O F O ST O MT O VT
45. If I get poor service from a business, I let the manager know about it.
O F O ST O MT O VT
46. I keep in touch with my friends.
O F O ST O MT O VT
47. I'm a sympathetic person.
O F O ST O MT O VT
48. Close relationships are important to me.
O F O ST O MT O VT

49. I'm very impatient with people.
☐ F ☐ ST ☐ MT ☐ VT
50. I have more friends than most people I know.
☐ F ☐ ST ☐ MT ☐ VT
51. I don't like letting people know when I disagree with them.
☐ F ☐ ST ☐ MT ☐ VT
52. I'm a very independent person.
☐ F ☐ ST ☐ MT ☐ VT

VITA**CORRINE ELIZABETH LEARY***Education*

Aug. 2001 – Dec. 2003

Old Dominion University
Norfolk, Virginia
M.S., Psychology, December 2003

Aug. 1997 – May 2001

Old Dominion University
Norfolk, Virginia
B.S., Psychology, May 2001; Minor: Sociology

Presentations

Justice, E. M., & Spiess, C. E. (2003, May). *Developmental Similarities in Understanding Intentional Behavior and Intentional Strategy Use*. Poster session presented at the biennial meeting of the Society for Research in Child Development, Tampa, FL.

Spiess, C. E., & Justice, E. M. (2002, May). *Developmental Correspondence of Theory of Mind and Intentional Strategy Use*. Paper presented at the annual meeting of Virginia Academy of Science, Hampton, VA.

APPENDIX G

DEMOGRAPHIC WORKSHEET

Please fill in the circles that describe you.

Gender: ☐ Male ☐ Female

Age: _____

Level of Education:

- | | |
|---|--|
| <input type="radio"/> First year undergraduate
<input type="radio"/> Third year undergraduate
<input type="radio"/> Other undergraduate | <input type="radio"/> Second year undergraduate
<input type="radio"/> Fourth year undergraduate |
|---|--|

Ethnicity:

- | | |
|--|--|
| <input type="radio"/> American Indian or Alaskan Native
<input type="radio"/> Black or African American
<input type="radio"/> Native Hawaiian or Other Pacific Islander
<input type="radio"/> Multiracial | <input type="radio"/> Asian
<input type="radio"/> Hispanic or Latino
<input type="radio"/> White, non-Hispanic |
|--|--|

Living Situation:

- | | |
|--|--|
| <input type="radio"/> Dormitory
<input type="radio"/> Own apartment/house | <input type="radio"/> With parents
<input type="radio"/> Other: _____ |
|--|--|

Number of Years Lived With:

- | | |
|--|---|
| _____ Father
_____ Stepfather
_____ Mother's boyfriend | _____ Mother
_____ Stepmother
_____ Father's girlfriend |
|--|---|

Age During Last Spanking: _____

Marital Status:

- | | |
|--|---|
| <input type="radio"/> Single
<input type="radio"/> Separated
<input type="radio"/> Widowed | <input type="radio"/> Married
<input type="radio"/> Divorced |
|--|---|

Highest Level of Education Completed by Mother (Female head of household):

- | | |
|--|---|
| <input type="radio"/> Some high school
<input type="radio"/> Some college
<input type="radio"/> Some courses toward master's degree
<input type="radio"/> Completed doctorate | <input type="radio"/> High school
<input type="radio"/> Completed college (e.g., B.S., B.A.)
<input type="radio"/> Completed master's degree (e.g., M.S., M.A., M.S.W.) |
|--|---|

Highest Level of Education Completed by Father (Male head of household):

- | | |
|--|---|
| <input type="radio"/> Some high school
<input type="radio"/> Some college
<input type="radio"/> Some courses toward master's degree
<input type="radio"/> Completed doctorate | <input type="radio"/> High school
<input type="radio"/> Completed college (e.g., B.S., B.A.)
<input type="radio"/> Completed master's degree (e.g., M.S., M.A., M.S.W.) |
|--|---|