



Gender Differences in the Relationships between Maternal and Paternal Physical Abuse in the Development of Psychopathy

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ABSTRACT

Introduction. Childhood abuse has been associated with psychopathy in adults and adolescent males (1, 2). As a result, some authors have argued that childhood abuse is integral to the development of psychopathy (3). Unfortunately, few studies have examined this relationship in adolescent females and gender differences were generally not reported (4). The current study examined the relationships between maternal and paternal physical abuse and psychopathy in males and females. Posttraumatic Stress Symptoms (PTSS) were also assessed as PTSS have been shown to mediate and moderate outcomes following childhood abuse (5, 6). **Method.** 64 males and 53 females (ages 12-18) completed the Family Background Questionnaire, the Psychopathy Checklist: Youth Version, and the Diagnostic Interview for Children and Adolescents. **Results.** ANOVA analyses indicated that maternal physical abuse was significantly associated with psychopathy in males but not females. Maternal physical abuse was also associated with PTSS hyperarousal ($r = .42, p = .01$) for males only and of PTSS reexperiencing for both males ($r = .31, p = .05$) and females ($r = .35, p = .02$). Paternal physical abuse was not significantly related to psychopathy or PTSS for males or females. The relationships between PTSS and psychopathy were not significant indicating that PTSS did not mediate the relationship between physical abuse and psychopathy. Moderation analyses were also not significant. **Discussion.** These findings demonstrate the importance of examining gender differences when studying risk factors of psychopathy as well as examining differential effects of maternal and paternal abuse.

INTRODUCTION

Childhood maltreatment has been associated with the development of psychopathy in adults and in adolescent males. The relationship between maltreatment and psychopathy characteristics is well established in adult community and prison samples (7, 8, 9, 1). This relationship appears to have an additive effect whereby increased trauma is related to higher levels of psychopathy traits (9). Maltreatment experiences are also related to psychopathy traits in adolescent males (10). As a result of these associations, some authors have argued that childhood maltreatment is integral to the development of psychopathy (3).

Unfortunately, only a few studies have examined this relationship in adolescent females and gender differences are generally not reported. Currently, only two studies have reported on the relationship between maltreatment and psychopathy in female adolescents and the results were inconsistent. In a study examining the relationships between maternal perpetrated victimization, aggression, and psychopathy, Odgers et al. (11) found that maternal victimization was moderately related to psychopathy. Contrary to this finding, Krischer et al. (12) found that physical abuse was related to psychopathy in delinquent adolescent males but not in females. These studies did not separately examine maternal and paternal victimization.

The current study examined the relationships between maternal and paternal physical abuse and psychopathy in both males and females. Understanding these relationships in female adolescents is important as several researchers have voiced concern that psychopathy may manifest differently in adolescent females than in adolescent males or adults (11, 12, 13, 14). PTSD symptoms were also included as previous studies have found that PTSS can mediate and moderate externalizing outcomes following childhood abuse (5, 6). The following hypotheses were made:

Hypothesis 1: Maternal and paternal physical abuse will be associated with psychopathy in males. No predictions were made regarding female participants.

Hypothesis 2: PTSS may mediate or moderate the relationship between physical abuse and psychopathy in male and female participants.

METHOD: Measures

The Family Background Questionnaire (FBQ). The FBQ (15) is an established measure of maltreatment experienced during childhood. Youth completed each of the items based on their victimization experiences with a maternal and paternal figure. Exposure to maternal and paternal physical abuse was assessed using a three-item subscale ("Spanked you very strongly," "Hit, punched or kicked you," and "threw you against something"). This variable was dichotomized as approximately half of the youth reported experiencing some physical abuse, while the other half reported experiencing no physical abuse.

The Psychopathy Checklist – Youth Version (PCL-YV). The PCL-YV (16) is a multi-item symptom construct rating scale that measures interpersonal and affective characteristics as well as overt behaviours. Trained observers rate the severity of each symptom based on a semi-structured interview, a review of case history information, and information from collateral informants. Each of the 20 items is scored on a 3-point scale (0 = item doesn't apply, 1 = item applies somewhat, 2 = item definitely applies). Reliability studies demonstrated acceptable levels of internal consistency and inter-rater agreement ($r = 0.81$ to $r = 0.93$; Vincent, Corrado, Odgers, & Cohen, 1999).

The Diagnostic Interview for Children and Adolescents-IV (DICA-IV). The DICA (17) is a well-validated, structured, computer-assisted interview that assesses DSM-IV criteria for major psychiatric syndromes. Standard symptom criteria were applied in determining the presence of PTSD (18).

METHOD: Participants and Procedure

Participants were 64 male and 53 female adolescents from the ages of 12 to 18 ($M = 15, SD = 1.53$). Participants were recruited from a maximum and minimum security custody centre, and a provincial centre which provides assessment for youth with severe conduct problems (Maples Adolescent Centre). Attempts were made to recruit each new female admission to the custody or assessment centre and then match her with a same aged male youth. Exclusion criteria for this sample were (a) IQ below 70, or (b) any significant Axis I psychotic symptoms.

Youth agreeing to participate in the study completed individual assessments comprised of semi-structured clinical interviews, computerized diagnostic assessments, and a battery of self-report measures. Data from official files, including social history, psychological, institutional, and educational reports were coded.

Table 1. Descriptive Statistics

Variables	Descriptives			
PCL-YV	M	SD	Possible Range	Actual Range
Males	22.89	7.23	0 - 40	0 - 38
Females	19.75	6.75	0 - 40	4 - 32
PTSS				
Re-experiencing				
Male	1.46	1.46	0 - 5	0 - 5
Female	2.89	1.58	0 - 5	0 - 5
Avoidance				
Male	1.63	1.82	0 - 7	0 - 7
Female	3.66	1.98	0 - 7	0 - 7
Hypervigilance				
Male	1.63	1.65	0 - 5	0 - 5
Female	2.51	1.79	0 - 5	0 - 5

Figure 1. Two-way Interaction

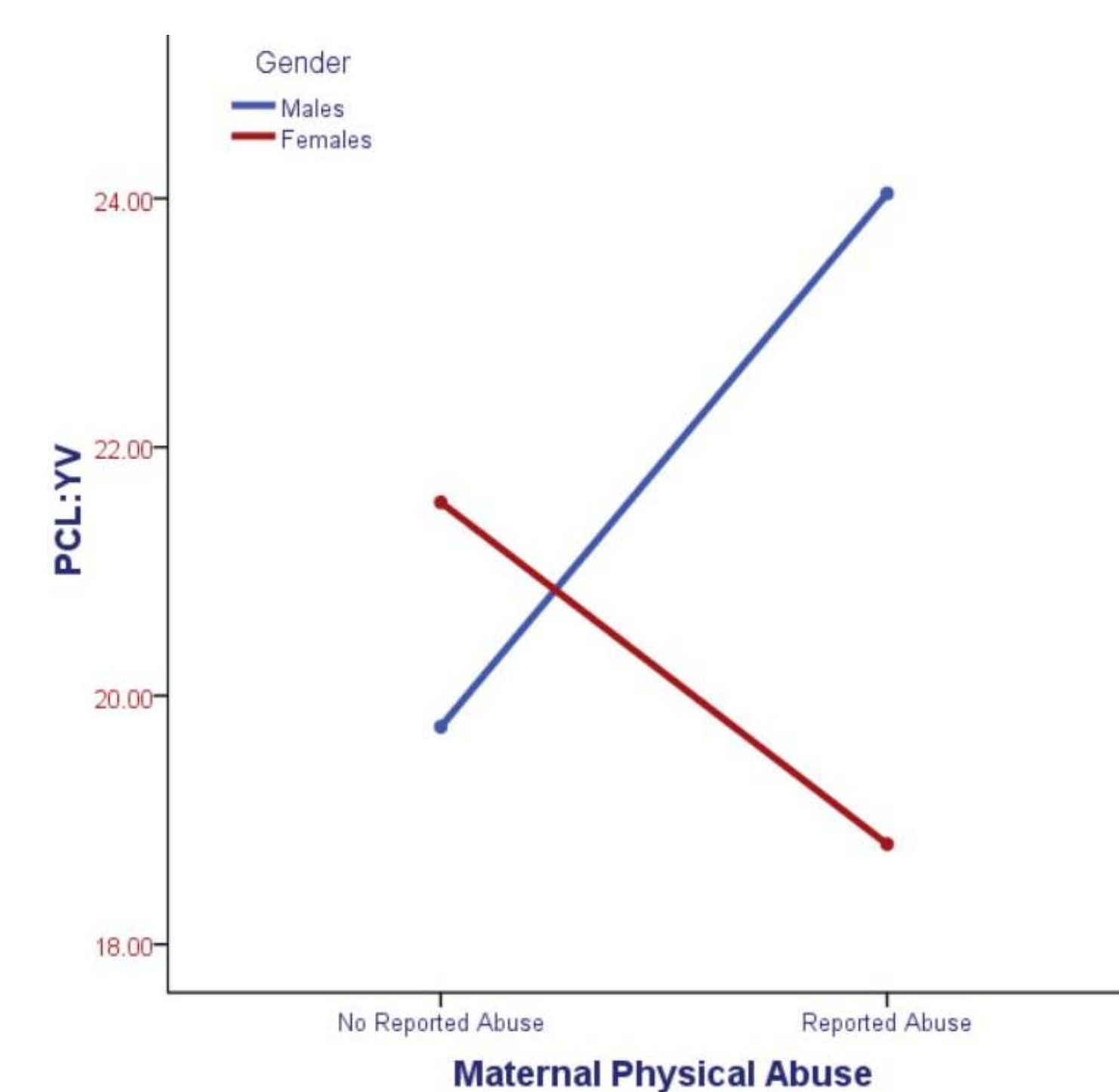


Table 2. Zero-order Correlations

	1	2	3	4	5	6
1. PCL:YV		.31*	.23	.00	-.02	-.02
2. Maternal Physical Abuse	-.19		.32**	.31*	.19	.42**
3. Paternal Physical Abuse	-.10	.28*		.09	.03	.10
4. PTSS Reexperiencing	.21	.35*	-.06		.61**	.84**
5. PTSS Avoidance	-.17	.13	-.18	.60**		.72**
6. PTSS Hyperarousal	.21	.01	-.11	.66**	.49**	

Note: Correlations for males appear above the diagonal; correlations for females below the diagonal. * $p < .05$, ** $p < .01$

RESULTS

Hypothesis 1: Maternal and paternal physical abuse will be associated with psychopathy in males. No predictions were made regarding female participants.

ANOVAs were conducted for both maternal and paternal physical abuse to test the relationships between physical abuse and psychopathy. The two-way interaction between maternal abuse and gender was significant ($F(1, 118) = 7.57, p = .01$, partial $\eta^2 = .06$; Figure 1). To probe this interaction, ANOVAs were conducted separately for males and females. For males, there was a main effect ($F(1, 64) = 6.63, p = .01$, partial $\eta^2 = .10$) for maternal abuse indicating that exposure to maternal physical abuse was associated with higher levels of psychopathy. For females this relationship was not significant indicating that maternal abuse was not associated with psychopathy. There were no significant relationships between paternal physical abuse and psychopathy.

Hypothesis 2: PTSS may mediate or moderate the relationship between physical abuse and psychopathy in male and female participants.

Mediation Analyses. Before mediation analyses can be conducted, relationships need to be shown between the dependent variable and the independent variable and between the mediator and the independent variable (19). Correlations were conducted to test the relationships between psychopathy, PTSS and physical abuse in males and females (Table 2). The relationships between PTSS and psychopathy were not significant indicating that PTSS does not mediate the relationship between physical abuse and psychopathy.

Moderation Analyses. A series of hierarchical multiple regressions (20) were conducted to test if PTSS moderated the relationship between physical abuse and psychopathy. These analyses were not significant indicating that PTSS did not moderate the relationship between physical abuse and psychopathy.

DISCUSSION

This study was one of only two to examine physical abuse in relation to psychopathy in female adolescents. The results of the current study were consistent with the findings of Krischer et al. (12). Maternal physical abuse was related to psychopathy in males but not in females. These findings, however, are at odds with results reported by Odgers et al. (11) who found that maternal perpetrated victimization was moderately associated with psychopathy in female adolescents. In this study victimization was a composite of physical abuse, psychological abuse and exposure to domestic violence, and these variables were not examined separately. The authors did report that physical abuse was not related to aggression, suggesting that it may not have been independently related to psychopathy. While there is some evidence that PTSS may moderate or mediate outcomes following childhood maltreatment, PTSS did not mediate or moderate the relationship between physical abuse and psychopathy in the current study.

The findings of the current study support past researcher's concerns that psychopathy may manifest and be expressed differently in adolescent females than in adults or adolescent males. While maternal physical abuse was associated with psychopathy in males, it was not associated with psychopathy in females. These findings highlight the importance of examining gender differences when studying risk factors of psychopathy as well as examining differential effects of maternal and paternal abuse. The results of this study must be considered in the context of our sample which included adolescents with significant behavioural problems and traumatic histories.

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