Parenting Style and Punishment Perception as Moderators of the Association between Corporal Punishment and Anxiety in Children

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Abstract

Corporal punishment has been linked with poor psychological development of children and adolescents. Within its specific psychological context of children's anxieties, the current study sought to brighten the moderation role parenting style and child's punishment perception play. 101 pre-adolescent children (age=11.5±0.56 yrs) were anonymously completed three forms of self-report questionnaires, to measure the relevant variables. Children of authoritarian parents who experienced high levels of corporal punishment were generally more anxious. This, however, was not observed in children of authoritative parents who experienced corporal punishment. Furthermore, children who perceived their parents' punishments as unjustified were solely slightly more school anxious. Results reported here indicate the moderating role parenting style has on corporal punishment in the context of anxieties in children, concluding that while high level of corporal punishment is harmful, an authoritative parenting context may play a protecting factor.

1. Introduction

Corporal punishment by definition includes any kind of physical punitive measures in response to a child's inappropriate behavior and may take the form of beatings, such as a spanking the buttocks, slapping, pinching, hair pulling, ear twisting and, in extreme cases, beating with a belt or a stick [1] [2] [3] [4] [5]. Corporal punishment has been linked with poor psychological development of children and adolescents [6]. This has led to corporal punishment being banned by law in 24 countries, mostly European, a number of South and Central American countries and throughout the Middle East [5]. Even so, controversy as to the effectiveness, admissibility and legitimacy of corporal punishment divides researchers and practitioners.

Indeed, some experts contend that current legislation against corporal punishment is an intrusion into family practices, limiting the ability of parents to properly educate their children [5]. Moreover, in recent years criticism has developed in the scientific community regarding the prohibition against corporal punishment, suggesting a systematic bias of the understanding and interpretation of empirical evidence [7] [8] [9]. The methodological criticism focuses on two main points. First, causal evidence linking corporal punishment and undesirable outcomes in children is inadequate. Second, there is a lack of consistent operational distinction between levels and forms of corporal punishment with respect to its negative effects on children's adjustment. As a result, the adverse effects of parental spanking and abusive behavior are confounded.

There is agreement among professionals of the devastating consequences of violent parental behavior bordering on child abuse. However, many professionals, along with laymen, still believe that the use of moderate and functional corporal punishment is an effective, and sometimes even necessary, method of discipline [4] [10]. Indeed, many countries refrain from imposing explicit legislative prohibitions on corporal punishment of children and many parents continue to use this method for educating their children [5] [11] [12]. The literature consistently confirms that the use of corporal punishment is an effective mean of achieving compliance in children and reducing unwanted and anti-social behavior [1] [13]. This is particularly valid under situations of coping with difficult children [8].

It therefore seems clear that this controversial issue requires careful investigation due to the immense educational and cultural importance it carries. Scientific inquiry regarding the effectiveness of corporal punishment as a disciplinary tool necessitates expanding and refining the scope of research on several specific aspects. The literature discussing the potential consequences of corporal punishment on children's adjustment reveals that most studies have focused on externalized variables, such as aggressive behavior, delinquency and anti-social tendencies. The possible consequences of this disciplinary method for children's emotional functioning and development of internalized disorders have yet to be elucidated [2].

There has been limited research on corporal punishment and its relationship to the specific emotional aspects of anxiety in children. For example, Rodriguez examined the relationship between parental attitudes toward severe punishment, a tendency toward abuse and symptoms of emotional distress in children [14]. The findings show that children of parents who presented a strong
tendency to use aggressive forms of education and corporal punishment reported significantly higher anxiety and depression levels, compared to the control group. These results were particularly strong in relation to symptoms of anxiety. A later longitudinal study presented evidence of a causal link between corporal punishment and internalized behavior among boys and girls [2]. Its findings showed that among girls, mild or severe levels corporal punishment predicted increased levels of anxiety and depression. Conversely, among boys, only severe corporal punishment significantly predicted internalized disorders, such as anxiety and depression. In both cases the reverse relationship was not significant, strengthening the evidence identifying the causal factor in the relationship between these variables.

These findings intensify the relationship between corporal punishment and emotional developmental variables in children, suggesting that the former may also play a crucial role in emerging emotional problems, like anxiety and depression. Even so, understanding the nature of corporal punishment in respect of negative, and even pathological, feelings of anxiety requires further research, also focusing on the identification and characterization of these relationships with specific anxiety types.

Another issue that is not adequately considered when assessing the link between corporal punishment and children's development is the overall parental context in which this educational practice is administered or performed. The relevant body of research shows evidence of the importance of educational-familial climate on regulating the effects of corporal punishment on children. It has been found that parental warmth reduced levels of behavioral problems among children when exposed to corporal punishment, and the level of parental warmth reduced the strength of the relationships among corporal punishment and behavioral disorders [3]. Another study showed similar support for the moderating effect of parental support, especially maternal, on the relationship between corporal punishment and depression in early adolescence [15]. If so, the negative impact of corporal punishment on the emotional and behavioral adjustment measured in these studies was minor, under supportive parenting styles (e.g., parental warmth). Moreover, several earlier researches implied that corporal punishment significances might be confounded with the negative consequences of parental rejection and negative parenting, as perceived by the child [16] [17]. Parental quality may also inflict child's perception of punishment fairness and, in turn, shape its effects on the latter's well-being [18]. The importance of Child's perception of the justification and appropriateness of corporal punishment, as mediator of its implications on child's psychological adjustment, was also discussed in Gershoff's work [1].

Taken together, these indicate that moderate use of corporal punishment is controversial and unresolved, especially in relation to children's emotional variables. Even though a significant body of studies indicates the negative potential inherent in corporal punishment, it is becoming clear that its efficacy as a Disciplinary measure is dependent upon other intervening variables. One of the most relevant variables outlined in this context is parenting style, which seems necessary to account for when examining the effects of corporal punishment on children's development. Another intervening aspect noted in the literature with respect to corporal punishment outcomes, yet, not adequately studied, is child's perception of punishment justification.

Accordingly, the current study seeks to answer the following questions:

1. Is there a significant link between parental corporal punishment and various anxiety types among pre-adolescent children?

Subject to the positive association between parental corporal punishment and anxiety among the sample's children, the next two questions will be also addressed:

2. Does parenting style moderate the relation between corporal punishment and anxiety in pre-adolescents children? (This will be questioned with respect to the general anxiety level and various anxiety types).
3. Does child's perception of parental punishment moderate the relation between corporal punishment and anxiety in pre-adolescents children? (This will be questioned with the respect to general anxiety level and various anxiety types).

2. Method

2.1. Participants and procedure

The study sample consisted of fifth- and sixth-grade children from regular education classes, including 54 girls and 40 boys, while 7 children did not report their gender (n=101). The mean age of the children was 11.5±0.56 yrs (range: 10-13 yrs). Younger children were excluded to rule out patterns characteristic of early development anxiety and to ensure that children were able to complete the study questionnaires satisfactorily.

Several elementary schools were targeted, upon receiving necessary approval for the study questionnaires and tools from the Ministry of Education. Convenience sampling was chosen due to study constraints. Three schools in Northern Israel consented to be part of the study and requests for confirmation were sent to parents for the recruitment of their son/daughter. The participants completed
three anonymous questionnaires, as the parents were informed and under their teachers’ supervision.

3.2. Measure

3.2.1. Parenting styles: Assessment of overall parental styles, based on child self-reporting, was carried out using the questionnaire of parental authority by Buri (PAQ: [19]). It contains 30 items, 10 items per parenting style (e.g., "My parents always encouraged discussions every time I felt that the rules and restrictions in the family are not fair."). normally used for classification of parents according to the conceptualization of Baumrind. Responses scaled from 1 ("strongly disagree") to 5 ("fully agree") and total parental score varied from 10-50, for every scale. This tool is valid with relatively high internal reliability and test-retest reliability [19] and widely accepted, used in Israel and around the world, to measure the three parenting styles. The various data obtained for this tool in the current study are shown in Table 1.

3.3. Patterns of anxiety

For initial identification of anxiety disorders, and in order to assess the level of general anxiety and specific anxiety patterns among children in the study, the subjects completed the SCARED questionnaire (SCARED: [20]); containing 41 items divided into five variables corresponding to the classification of anxiety disorders in children according to the DSM-IV (e.g., Social Anxiety - "I feel tense when I'm with people I do not know well"). Response scales comprised of three options: 0 – ‘not true’, 1 – ‘sometimes true’ and 2 – ‘often true’. Internal reliability data obtained in the study for all scales of anxiety in the questionnaire ranged from 0.69-0.90 (Table 1).

3.4. Parental punishment

The intensity of punishment children were exposed to by their parents, including corporal punishment, was assessed using the method developed by Gordon et al. (IPPS: [21]). This questionnaire contains 33 items that describe situations, as similar as possible to common interactions between children and parents. Each response is given on the 5-point Likert scale of external parental punitive behavior, such as corporal punishment, raising his voice and/or denial of rights to coerce parental will. For the current study subjects were also asked to rate the extent to which they perceive each of their parental punitive respond (per item) as justified. Test-retest reliability of r=0.85 was reported by the developers for the original scale. The various data measured for this tool in the current study are shown in Table 1.

Table 1. Descriptive Statistics (mean, SD, \( \alpha \)) for parenting, punishment and anxiety variables (N=101)

<table>
<thead>
<tr>
<th>Questionnaire</th>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>( \alpha )</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPPS</td>
<td>Punishment (external response)</td>
<td>2.54</td>
<td>0.49</td>
<td>0.94</td>
</tr>
<tr>
<td></td>
<td>Punishment Perception</td>
<td>3.78</td>
<td>0.74</td>
<td>0.96</td>
</tr>
<tr>
<td>PAQ</td>
<td>Permissive</td>
<td>27.55</td>
<td>6.46</td>
<td>0.72</td>
</tr>
<tr>
<td></td>
<td>Authoritarian</td>
<td>29.81</td>
<td>6.83</td>
<td>0.78</td>
</tr>
<tr>
<td></td>
<td>Authoritative</td>
<td>35.30</td>
<td>6.86</td>
<td>0.73</td>
</tr>
<tr>
<td>SCARED</td>
<td>Separation anxiety</td>
<td>6.87</td>
<td>3.47</td>
<td>0.70</td>
</tr>
<tr>
<td></td>
<td>Social anxiety</td>
<td>6.29</td>
<td>3.41</td>
<td>0.81</td>
</tr>
<tr>
<td></td>
<td>School Phobia</td>
<td>1.91</td>
<td>1.68</td>
<td>0.69</td>
</tr>
<tr>
<td></td>
<td>Generalized anxiety disorder</td>
<td>7.19</td>
<td>3.49</td>
<td>0.70</td>
</tr>
<tr>
<td></td>
<td>Panic/Somatic</td>
<td>5.55</td>
<td>4.34</td>
<td>0.82</td>
</tr>
<tr>
<td></td>
<td>General anxiety level</td>
<td>27.81</td>
<td>12.26</td>
<td>0.90</td>
</tr>
</tbody>
</table>
3. Results

Descriptive statistics for the different scales used to measure the variables of this study is presented in table 1. Primarily, the associations between the study variables were examined. In the absence of significant effects for the background variables (gender, age and birth order) on the level of anxiety among the study participants, the following analyses were conducted for the entire sample, regardless of its constituent groups and/or without controlling for this variables.

*Effects of corporal punishment, parenting style and punishment perception on anxiety levels among children*

To examine the effects of corporal punishment on anxiety levels among children, the sample was divided into three groups ranked according to the level of corporal punishment. The classification into one of three levels of corporal punishment was based on the method of maximum response to an item (scores of 1-3 classified as "No Corporal punishment", while categories of score 4 – spanking, and score 5 – hitting, were defined as "Moderate Corporal Punishment" and "High Corporal Punishment", respectively). A 3x2x2 multivariate analysis of variances (MANOVA) was used to examine the effect of corporal punishment on general anxiety level and five anxiety patterns, while considering the effects of parenting styles (the group of children with permissive parents was 5% and was dropped from the analysis due to its small size) and punishment perception (Using the median cut-point for subjects' rates of punishment justification, the sample was sorted to two groups of perception (High/Low)). Means, standard deviations and overall Manova results for corporal punishment and parenting style variables are presented in table 2 (Essential data for 'punishment perception' effects are presented in text).

The overall variance analyses resulted in general significant main effects for corporal punishment group (F(10,160)=2.87, p<.005) and parenting style (F(5,80)=2.60, p<.05) on anxiety variables. Punishment perception main effect was also approaching significance (F(5,80) =2.14, p=.07).

Individual Manova probe revealed that corporal punishment is significantly related to general anxiety level (F(2,84)=6.97, p<.005), as well as, to panic/somatic anxiety (F(2,84)=6.65, p=.005), separation anxiety (F(2,84)=4.19, p<.05), social phobia (F(2,84)= 5.03, p<.01) and school phobia (F(2,89)=4.99, p<.01). Post-hoc tests (Tukey) assessing the source of differences between groups of corporal punishment show that the level of anxiety of all tested variables is significantly higher in the 'high punishment' group in comparison with the other two corporal punishment groups.

Examining the individual effect of parenting style on anxiety variables shows, as expected, that the general anxiety level was significantly higher in children of authoritarian parents (F(1,84)=8.62, p<.005) compared to the authoritative group. Similar effects were observed for specific anxiety variables of somatization/panic (F(1,84)=11.10, p<.001) and generalized anxiety disorder (F(1,84)=5.84, p<.005), but not for separation anxiety, social phobia and school phobia.

Individual main effect for punishment perception on anxiety was approaching significance only in relation to school phobia (F(1,84)= 3.66, p<.10), indicating anxiety mean to be higher among low justification group (M=2.73, SD=1.73) as compared to the high justification group (M=1.51, SD=2.15).

![Figure 1. The interaction between corporal punishment group with parenting style predicting general anxiety level](image)

*Parenting style and punishment perception as moderators of the association between corporal punishment and anxiety in children.*

Moderation of corporal punishment effects was inspected through the interaction effects obtained for this variable with parenting style and children's perception of parental punishment. A general significant effect was found among anxiety variables for the interaction between corporal punishment group and parenting style (F(10,162)= 2.58, p<.01). The Individual interaction effect on general anxiety level (F(2,84)=5.39, p<.01) indicates that differences between corporal punishment groups in general anxiety level occur only in children of authoritarian parents but not of authoritative parents (see figure 1). Given the similar statistical trends obtained for the specific anxiety scales of panic/somatic (F(2,84)=7.97, p<.005) and social phobia (F(2,84)=4.39, p<.05), this confirms partly the moderation role parenting style plays with respect to the relationship between corporal punishment and anxiety among children.

However, no significant effect was observed for the interaction between corporal punishment and child's perception of punishment, apart from a single
interaction effect on school phobia approaching significance at 0.1 (F(2,84)=2.55, p=.08).

### Table 2. Means and (Standard Deviations) for General level of anxiety and specific anxiety patterns by corporal punishment group and parental style (Manova)

<table>
<thead>
<tr>
<th></th>
<th>No corporal punishment (n=42)</th>
<th>Moderate corporal punishment (n=41)</th>
<th>High corporal punishment (n=12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Anxiety Level</td>
<td>Authoritative: 23.87</td>
<td>Authoritarian: 39.40</td>
<td>Total: 31.17</td>
</tr>
<tr>
<td></td>
<td>(15.08)</td>
<td>(21.08)</td>
<td>(36.40)</td>
</tr>
<tr>
<td>Panic/Somatic Anxiety</td>
<td>Authoritative: 4.54</td>
<td>Authoritarian: 9.05</td>
<td>Total: 6.80</td>
</tr>
<tr>
<td></td>
<td>(5.52)</td>
<td>(7.17)</td>
<td>(13.31)</td>
</tr>
<tr>
<td>Separation Anxiety</td>
<td>Authoritative: 5.80</td>
<td>Authoritarian: 7.80</td>
<td>Total: 6.96</td>
</tr>
<tr>
<td></td>
<td>(4.53)</td>
<td>(6.87)</td>
<td>(10.95)</td>
</tr>
<tr>
<td>School Phobia</td>
<td>Authoritative: 1.44</td>
<td>Authoritarian: 2.15</td>
<td>Total: 1.79</td>
</tr>
<tr>
<td></td>
<td>(2.10)</td>
<td>(3.19)</td>
<td>(5.07)</td>
</tr>
<tr>
<td>Gad</td>
<td>Authoritative: 6.36</td>
<td>Authoritarian: 10.70</td>
<td>Total: 8.33</td>
</tr>
<tr>
<td></td>
<td>(4.91)</td>
<td>(6.84)</td>
<td>(11.85)</td>
</tr>
<tr>
<td>Social Phobia</td>
<td>Authoritative: 5.75</td>
<td>Authoritarian: 9.70</td>
<td>Total: 7.94</td>
</tr>
<tr>
<td></td>
<td>(2.10)</td>
<td>(2.94)</td>
<td>(5.07)</td>
</tr>
</tbody>
</table>

Note: Overall Manova for corporal punishment group: F(10,160)=2.87, p<.005; Overall Manova for parenting style: F(5,80)=2.60, p<.05.; Overall Manova for interaction effect between corporal punishment and parenting style: (F(10,162)= 2.58, p<.01).

### 4. Discussion

The present study sought to explore the possible consequences of corporal punishment in the emotional context of anxiety types among children, while taking into account the moderation effect of parenting style and punishment perception (by child). The fundamental question of this study concentrated on the specific effect of corporal punishment on the general anxiety level and several specific anxiety patterns. Multivariate analysis of variance revealed significant effects for the level of corporal punishment on all anxiety variables examined, partly interact with the parenting style. Differences of anxiety levels between groups of corporal punishment were observed mostly in comparison to the high corporal punishment group but not compared to the moderate punishment group. In other words, the negative effect of parental corporal punishment on anxiety levels in the sample was only observed among children exposed to a high degree of corporal punishment. This finding is consistent with previous research showing differential effects of various forms of corporal punishment with respect to adjustment variables in children [4] [13]. It may be concluded that severe corporal punishment, but not necessarily corporal punishment, *per se*, may be harmful with regard to anxieties of children. This is consistent with the position of Larzelere and Baumarind regarding the
need to distinguish between different forms of corporal punishment in determining a framework of considerations about its negative and positive consequences on children [9].

As for the moderation role of parenting style, referred in the second research question of the current study. The resulting interaction effect between corporal punishment and parenting style on children's general anxiety level and two other specific anxiety types (somatic/panic and social phobia) indicates that the effect of high corporal punishment applies in children of authoritarian parents, while no differences were found in anxiety levels between corporal punishment groups among children of authoritative parents. This suggest that the adverse possible consequences of corporal punishment on anxieties of children takes place mostly in the context of authoritarianism parenting, while characteristics of authoritative parenting style seems to moderate them.

The differential effect of corporal punishment in the groups of parenting (i.e., parenting style moderation) can be understood in terms of three of four Larzelere principles defining effective corporal punishment in children [22]. First, effective corporal punishment should be limited to early childhood age and not to exceed adolescence. Gunnoe showed that authoritative parents make little use of corporal punishment for educational purposes towered and during adolescence, in comparison with authoritarian parents [23]. This can explain the differential effect of corporal punishment among the parenting style groups in the current study, if considering the inability of the punishment scale to reflect the low frequency of corporal punishment usage among the group of authoritative parents.

According to Larzelere's second principle, punishment needs to serve as a backup or in combination with less aversive disciplinary methods to support their effectiveness. Accordingly, effective corporal punishment cannot be used as the primary disciplining method. The term 'conditional punishment' used to describe this form of discipline, is more likely to be seen in authoritative parents and which its impact on child development seems innocuous [9] [13]. The authoritarian parent is attributed with a more consistent style of corporal punishment, in terms of frequency and extent of use. The interaction effect found here is consistent with this theoretical rationale regarding the quantitative differences in corporal punishment practiced by the two parents' styles, whose effects on the child are differentiable.

The third principle states, that effective corporal punishment may exist in the context of positive parenting in the sense of nurturing, giving praise, physical contact while minimizing arbitrary commands and criticisms [22]. In the context of parenting style as a moderator of the adverse possible impacts of corporal punishment, this study finds support for the notion about the importance of the overall parenting context in relation to children's anxieties. This conclusion is generally consistent with a number of recent studies which found various protective effects of parental quality in relation to adverse consequences of severe parental punishment on children's emotional development [3] [15] [24]. It is plausible, therefore, that among the group of children to authoritative parents, characterized by a high degree of support and emotional closeness, no higher anxieties was measured as a function of the level of punishment.

Ultimately, the third research question referred to the child's perception of the punishment justification as additional moderator of the association between corporal punishment and anxieties among the sample's children. When accounting for parenting style, this variable main effect and interaction effect with corporal punishment observed was minor, only approaching significance in relation to school phobia. Although surprising, this is consistent with Rohner et al. findings showing indirect relationship between perceived justness of corporal punishment and psychological adjustment in children, which is mediated by the latters' perceptions of the caretaker acceptance-rejection [25]. Accordingly the research contented that low perceptions of the justness of corporal punishment (as well as corporal punishment itself) might hinder child's psychological well-being only when the latter perceives his parents' actions toward him as an expression of rejection.

5. Conclusions and limitations

Results reported here indicate the apparent moderating role parenting style has on corporal punishment in the context of anxieties in children, suggesting that corporal punishment may be harmless to children in specific parenting contexts. Given that only high level of corporal punishment was found to be related with elevated anxieties in children, might point to the importance of the intensity of corporal punishment in this context, rather than on corporal punishment per se.

Apart from the small sample size, the results presented here are limited in several respects. First, all measures of parenting and punishment styles rely on self-reported subjective perception of the child. This perceived parenting style by the child may not match exactly the actual style of the parent. Under this constraint, understandably, the conclusions linking punitive parenting style and various anxieties in children must be restricted. However, many researchers tend to attribute a great deal of importance to the child's perception of the parent's characteristics, emphasizing its importance in relation to developmental and adaptive variables [26] [27]. Furthermore, the methodological validity of the current findings who stem from a single informant should be also considered. Finally, the present study is based correlative findings which do not give
meaningful information on the direction of the parent-child effect. Although interpretation of these results regarding the relationship between corporal punishment and anxieties implies parental influence, the possibility that the dominant effect is actually reversed, remains open.

6. References


