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Childhood history of abuse and child abuse potential: The role of parent's gender and timing of childhood abuse

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ABSTRACT

It has been suggested that being physically abused leads to someone becoming a perpetrator of abuse which could be associated to parents' gender, timing of the physical abuse and specific socio-demographic variables. This study aims to investigate the role the parents' gender, timing of childhood abuse and socio-demographic variables on the relationship between parents' history of childhood physical abuse and current risk for children. The sample consisted of 920 parents (414 fathers, 506 mothers) from the Portuguese National Representative Study of Psychosocial Context of Child Abuse and Neglect who completed the Childhood History Questionnaire and the Child Abuse Potential Inventory. The results showed that fathers had lower current potential risk of becoming physical abuse perpetrators with their children than mothers although they did not differed in their physical victimization history. Moreover, the risk was higher in parents (both genders) with continuous history of victimization than in parents without victimization. Prediction models showed that for fathers and mothers separately similar socio-demographic variables (family income, number of children at home, employment status and marital status) predicted the potential risk of becoming physical abuses perpetrators. Nevertheless, the timing of victimization was different for fathers (before 13 years old) and mothers (after 13 years old). Then our study targets specific variables (timing of physical abuse, parents' gender and specific socio-demographic variables), which may enable professionals to select groups of parents at greater need of participating in abuse prevention programs.

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Introduction

Being physically abused leads to someone becoming a perpetrator of abuse (Caykoylu, Ibiloglu, Taner, Potas, & Taner, 2011; Paúl, Milner, & Múgica, 1995; Newcomb & Locke, 2001; Rikhye et al., 2008; Simons, Whitbeck, Conger, & Chyi-In,1991; Zaidi, Knutson, & Mehm, 1989). That would be partially explained by structural and functional brain abnormalities in maltreated children (Mesa-Gresa & Moya-Albiol, 2011). Moreover, the early social learning models might explain the intergenerational transmission of abusive parent behavior (Muller, Hunter, & Stollak, 1995). Such models might explain why both childhood receipt of physical abuse and observation of spousal abuse impact on adult likelihood of child maltreatment (Schluter, Tautolo, & Paterson, 2011). Further models such as attachment and trauma mediation models could explain the intergenerational transmission of parents' abusive behaviors with their offspring (Amos, Furber, & Segal, 2011; Joubert, Webster, & Hackett, 2012; Morton & Browne, 1998; Rodriguez & Tucker, 2011). Parents who were abused can also use more frequently the punitive discipline techniques that they received (Rodriguez & Sutherland, 1999). This process was defined as the 'cycle of violence'. Perpetuating factors are those that affect the family in a continuing or ongoing way. The relationship

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between the effects of being abused during childhood and the medium and long term effects is moderated by different variables such as the kind of abuse, its intensity and duration and the child's gender (Mesa-Gresa & Moya-Albiol, 2011).

For women, physical abuse in childhood significantly influenced perceptions of their relationship with children. However, physical abuse was not significantly associated with later parenting in fathers (Sandberg, Feldhousenb, & Busbya, 2012). Typically, more mothers use physical punishment than fathers (Ferrari, 2002; Uslu, Kapci, Yildirim, & Oney, 2010), although fathers were highly over-represented as perpetrators of physical child abuse, particularly in its most severe forms (Guterman & Lee, 2005). However, some studies did not show differences between fathers and mothers as perpetrators of abuse on their offspring (Browne & Hamilton, 1998; Nobes, Smith, Upton, & Heverin, 1999). Physical abuse was confined to family members and its prevalence rates were similar in different cultures (Stoltenborgh, Bakermans-Kranenburg, van Ijzendoorn, & Alink, 2013). Most physical abuses began prior to the age of 13, with half continuing after that age (Marysko et al., 2010; Sushil et al., 2004). Children (both genders) who experienced physical abuse prior to puberty presented higher rates of abusive behaviors than those with physical abuse after puberty (de Paúl & Domenech, 2000; Milner, Robertson, & Rogers, 1990), and a recent study found that childhood-limited maltreatment does not significantly increase the odds of maltreatment perpetration. However, maltreatment victimization, especially during adolescence or beginning in childhood and persisting into adolescence, is a likely cause of subsequent perpetration. Thus, developmental theories sustain that what occurs early in the life has a significant importance for later development. Nevertheless, for life-course theories, recent as well as distant events are important for the course of life (Thornberry & Henry, 2013).

Physically abusive families had significantly more often a low income and less education, younger parents, and more frequently presented a family history of physical victimization (Caliso & Milner, 1992; de Paúl & Domenech, 2000; Wolfe, Edwards, Manion, & Koverola, 1988; Whipple & Webster-Stratton, 1991), had social isolation, marital problems and more children than they could handle as well as a poor supporting environment (Dietrich, Berkowitz, Kadushin, & McGloin, 1990; Hıdıroğlu, Topuzoğlu, Ay, & Karavuş, 2006; Moracco, Runyan, Bowling, & Earp, 2007; Ünal, 2005). The absence of that socio-economic resources and abilities act as a catalytic factor for becoming perpetrators of physical abuse, in parents with a previous history of physical victimization (Whipple & Webster-Stratton, 1991).

With all this in mind, using data from a community survey with Portuguese parents, the aim of the current investigation was twofold. First, we investigated whether the parents' gender and the timing of the parents' history of abuse affects the current risk of becoming physical abuse perpetrators with their children. As mothers classically tend to be more physically aggressive with their offspring than fathers (Appel & Holden, 1998; U.S. Department of Health & Human Services, 2006), we would expect that mothers presented a higher risk of maltreating their children than fathers. Moreover, as the history of childhood abuse (earlier, during adolescence or continuous) increases the rate of becoming a perpetrator of abuse in adulthood (de Paúl & Domenech, 2000; Milner et al., 1990; Thornberry & Henry, 2013), we would expect that parents (both genders) with some history of abuse during their early lives (in adolescence or continuous) presented higher predisposition to child abuse than parents without history of childhood abuse. Finally, the role of parents' childhood experience of physical maltreatment during childhood and adolescence (before, after 13 and before + after 13) and socio-demographic variables on the predispositions to child abuse in parents, separately for fathers and mothers, will be examined. Considering the importance of the continuous history of abuse to become an abuse perpetrator (de Paúl & Domenech, 2000; Milner, Robertson, & Rogers, 1990; Thornberry & Henry, 2013), we would expect that in parents (both genders), continuous history of abuse would be a better predictor of predisposition to child abuse. Moreover, due to the importance of some socio-demographic variables such as educational level, employment status, family income, parents' age and number of children, in the inter-generational continuity of child maltreatment (Appleyard, Berlin, Rosanbalm, & Dodge, 2011; Gilbert et al., 2009; Stith et al., 2009), we would expect to find that low economic level, parent's age, professional status and/or educational level together with a high number of children increased the risk of offspring maltreatment, independently of the parents' gender. Given the importance of this complex research topic for understanding the cycle of human violence and for establishing effective prevention programs, we first need to understand the nature and strength of the relationship between a history of maltreatment victimization and the potential risk of becoming physical abuse perpetrators.

Method

Participants

The sample was composed by 920 parents that participated in the National Representative Study of Psychosocial Context of Child Abuse and Neglect in Portugal. Parents ranged from 22 to 66 in age and had on average 1.92 children (SD = 0.91, range = 1–9). The overall rate of compliance from parents (i.e., in returning the questionnaires) was 69% (N = 1021), and the rate of correctly completed and returned questionnaires was 63% [68% (506) for mothers and 58% (414) for fathers].

Procedure

Participants were a subset of parents in the National Representative Study of Psychosocial Context of Child Abuse and Neglect in Portugal (PCCANP). Participants were mothers and fathers of children randomly selected in five public elementary schools of Northern Portugal. All parents whose children attended the selected schools were contacted in the year 2000. Regional education authorities (DREN, Direção Regional da Educação do Norte) provided ethical approval for the current

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Table 1
Mean ± SEM and distribution of socio-demographic variables for fathers and mothers.

	Parents (n = 920)	
	Mothers (n = 506)	Fathers (n = 414)
Age	35.81 ± 5.59	38.70 ± 6.60
Number of children	1.94 ± 0.92	1.90 ± 0.27
Number of children at home	1.08 ± 0.27	1.11 ± 0.31
Marital status***		
Married/cohabiting	84%	93%
Divorced/widow/single	16%	7%
Educational level**		
≤12 years	74%	71%
College degrees	26%	29%
Employment status***		
Employed	76%	92%
Unemployed	24%	8%
Retired/other	0%	0%
Family income**		
≤3.5 national minimum wage	60%	53%
≥3.6 national minimum wage	40%	47%
Parents' household composition		
With spouse and with child(ren)	88%	96%
Alone with children	12%	4%

** $p < .01$.
*** $p < .001$.

research. All parents were informed about the research aims and ethic procedures in meeting sessions with research team members and teachers. For more details see Sushil et al. (2004) and Lamela and Figueiredo (2013).

Measures

Socio-demographic data. Participants were interviewed to assess socio-demographic variables such as gender (mother/father), age, number of children in the family, number of children in the family who lived at home, marital status (married/cohabiting, divorced/widow/single), educational level (<12 years, college degrees), parent employment status (employed, unemployed, retired/other), family income (≤3.5 national minimum wage, ≥3.6 national minimum wage) and parents' household composition (with spouse and with child(ren), alone with children) (see Table 1).

Childhood History Questionnaire (CHQ). The Portuguese version (Sushil et al., 2004) of the Childhood History Questionnaire (Milner et al., 1990), which is a retrospective, self-report, assessed the parents' childhood experience of physical maltreatment during childhood and adolescence. The main CHQ question is: "As a child, did you receive any of the following from one of your parents or another adult before you were 13?" For each item the respondent is asked to identify the perpetrator when relevant. The CHQ presented nine physically maltreatment events (i.e., whipping, slapping/kicking, bruises/welts, bone fractures) and participants were asked for the presence or absence (0 = no, 1 = yes) of occurrence of each one of them, prior to and after age 13. To reduce the number of tests, increase power for effect size, and aid interpretation within a conceptual framework, a general physically maltreatment event index is calculated by adding the scores of the items of four subscales, before 13 (physical without sequelae/injury and physical with sequelae/injury) and after 13 (physical without sequelae/injury and physical with sequelae/injury), ranging from 0 to 4 for the total score. The Cronbach's α of the Portuguese adaptation was .81.

Child Abuse Potential Inventory (CAPI). The Portuguese version (Gomes, 2010) of the Child Abuse Potential Inventory (CAPI) was employed to assess parents' attitudes and practices regarding physical forms of discipline and abuse (Milner, 1986). The Portuguese adaptation of the CAPI abuse scale include a 77-item Child Abuse Scale (which examines distress, rigidity, unhappiness, problems with the child and the self, problems with the family and with others, and others' problems (i.e., 'Children should never disobey', 'A good child keeps his toys and clothes clean and tidy')) and 3 validity scales. These three scales include: the lie scale (18 items), the random response scale (18 items), and the inconsistency scale (20 items). Items are answered in a forced-choice format (0, no or 1, yes). Total score employed in our study on CAPI physical abuse scale ranges from 0 to 74, with higher scores reflecting a higher risk of child physical abuse. Cronbach's α was .88.

Data analysis

After confirming the normality of the data using the Kolmogorov–Smirnov test, T-tests with Levene's test and/or Chi square analyses were performed where appropriate were used to check for significant gender differences in parents' CHQ total scores and socio-demographic variables. Effect sizes for the between-group differences were calculated using Cohen's

Table 2
Distribution of physical abuse (Childhood History Questionnaire (CHQ) for fathers and mothers).

	Without physical abuse, % (*N*)	Before 13 only, % (*N*)	After 13 only, % (*N*)	Before and after13, % (N)
Fathers ($n = 414$)	24.3%	27.6%	3.3%	44.9%
Mothers ($n = 506$)	26.9%	29.3%	2.7%	41.1%

d (Cohen, 1988). One-way ANOVA was conducted with 'gender' and 'timing of the childhood abuse (before 13, after 13 or before + after 13)' as between-subject factors. Afterwards, one-way ANCOVA was conducted with 'gender' and 'timing of the childhood abuse (before 13, after 13 or before + after 13)' as between-subject factors and appropriate covariates (socio-demographic variables).

Hierarchical linear regressions were performed to predict separately for fathers and mothers the predisposition to child abuse in parents using as potential predictors the parents' childhood experience of physical maltreatment during childhood and adolescence (before, after 13 and before + after 13) and socio-demographic variables.

Data analyses were performed using SPSS 19.0 (SPSS IBM). All reported *p*-values are two-tailed, and $p \leq .05$ was considered significant. Average values are expressed as mean ± SEM.

Results

General differences between fathers and mothers

Fathers did not differ significantly from mothers in the number of children and the number of children who live at home. Nonetheless, there were significant differences in terms of age ($t_{938} = -.7.24$, $p = .000$, $d = .47$), marital status ($\chi^2(4) = 20.38$, $p = .000$), educational level ($\chi^2(7) = 19.44$, $p = .007$), employment status ($\chi^2(1) = 4.91$, $p = .000$), family income ($\chi^2(4) = 13.47$, $p = .009$) and parents' household composition ($\chi^2(2) = 45.04$, $p = .000$). Fathers were older, more were married, had higher educational level employment status and income, and less lived alone with children than women (see Table 1). For this reason, they were covariated in the ulterior analysis.

No significant differences were found between fathers and mothers in the total scores of CHQ physical abuse before 13 (0.80 ± 0.50 and 0.82 ± 0.03, respectively), physical abuse after 13 (0.51 ± 0.03 and 0.54 ± 0.03, respectively) or total physical abuse (before + after 13) (1.36 ± 0.05 and 1.31 ± 0.05, respectively). Moreover, no significant effect of gender in the percentage of distribution of CHQ presence or not of physical abuse was detected (see Table 2).

A significant 'gender' [$F(1, 919) = 15.39$, $p = .000$, $\eta_p^2 = .02$] and 'timing of history of childhood physical abuse' [$F(3, 916) = 4.73$, $p = .003$, $\eta_p^2 = .02$] effect was found in the CAPI score and in the potential risk of becoming a perpetrator of physical abuse. Fathers presented lower risk than mothers in their predisposition to child abuse (20.38 ± 0.56 and 24.88 ± 0.54, respectively) and parents with a continuous history of physical abuse showed higher CAPI score than parents without history of physical abuse (23.85 ± 0.65 and 20.84 ± 0.69, respectively) ($p < .05$). However, a significant effect of the 'interaction gender × timing of history of childhood physical abuse' was not observed. After covariate the socio-demographic variables, similar results were obtained, with 'gender' [$F(1, 863) = 18.77$, $p = .000$, $\eta_p^2 = .02$] and timing of history of childhood physical abuse [$F(3, 863) = 7.84$, $p = .000$, $\eta_p^2 = .03$] presenting a significant effect on CAPI score. Finally, the interaction 'gender × timing of history of childhood physical abuse' did not show a significant effect.

Hierarchical regression models with predictors of predisposition to child abuse in parents (timing of parents' childhood experience of physical maltreatment and socio-demographic variables) separately for fathers and mothers, are summarized in Table 3.

Discussion

Fathers had lower current potential risk of becoming perpetrators of physical abuse with their children than mothers. Moreover, parents (both genders) with a continuous (before + after 13 years old) history of childhood physical abuse presented a higher potential risk of becoming perpetrators of physical abuse with their children than parents without any history of physical abuse. Fathers and mothers did not differ in terms of parents' history of childhood physical victimization (before, after 13 and before + after 13 years old). Regarding the predictors of the potential risk of becoming perpetrators of physical abuse with their children, the best one for fathers was the history of childhood victimization before 13 years old while for mothers it was the history of childhood victimization after 13 years old. For both, fathers and mothers, similar socio-demographic variables (family income, number of children at home, employment status and marital status) predicted the potential risk of becoming perpetrators of physical abuse with their children. Nevertheless, only in mothers the educational level was a predictor of the potential risk of becoming a perpetrator.

We hypothesized that mothers would present a higher potential risk of becoming perpetrators of physical abuse with their children than fathers and our results support that hypothesis. Moreover, our data also revealed that parents (fathers and mothers) persistently or continuously maltreated had a higher likelihood of becoming perpetrators of physical abuse with their own children. These results could be explained because mothers tend to bear a larger share of parenting responsibilities in two-parent families and spend significantly more time caring for children (Appel & Holden, 1998; U.S. Department of

Table 3
Linear regression models with parents' demographics and parents' CAPI for fathers and mothers.

Predictor	Fathers ($n = 414$)				
	Multiple R^2	R change	F(model)	B coefficient	Sig.
Model 5					
Family income	.182	.010**	$F(5, 365) = 17.23$***	−.293	.039
Number of children at home				.152	.000
Employment status				.140	.006
CHQ before 13				.120	.005
Marital status				.103	.032
Predictor	**Mothers ($n = 506$)**				
	Multiple R^2	R change	F(model)	B coefficient	Sig.
Model 6					
Family income	.235	.012**	$F(7, 439) = 23.49$***	−.179	.000
CHQ after 13				.187	.003
Number of children at home				.213	.000
Number of children				.141	.001
Educational level				−.160	.001
Employment status				.120	.011

** $p < .01$.
*** $p < .001$.

Health & Human Services, 2006). Social learning theories sustain that maltreated parents apply the same procedures they learned from their own parents or in their context (Coulton, Korbin, Su, & Chow, 1995; Kotch et al., 1995; Muller et al., 1995; Schellenbach, Whitman, & Borkowski, 1992; Schluter et al., 2011; Uslu et al., 2010). Attending to the attachment theory, parents who maltreat their own children present insecure and disorganized attachments as a result of their own experience with their parent's sensitivity and responsiveness (Amos et al., 2011). Finally, ecological theories sustain that intergenerational transmission of maltreatment is a result of mediation processes such as learning of a cultural discipline, poor emotion regulation, hostile traits, antisocial traits, and dissociative symptoms (Cicchetti & Valentino, 2006). In our study, mothers presented a higher potential risk of becoming perpetrators of physical abuse than fathers although they did not differ in their childhood victimization history. Moreover, the differences between socio-demographic variables which could explain the potential risk of becoming abuse perpetrators (Dietrich et al., 1990; Hıdıroğlu et al., 2006; Moracco et al., 2007; Ünal, 2005) were statistically controlled and the same results were obtained. For that, it was important to analyze mediator variables such as the timing of maltreatment and the relationship between parents who were maltreated with the possibility to eventually maltreat their own.

Usually only the kind of abuse, its intensity and duration and the child's gender were considered as moderators in the effects of maltreatment in children (Mesa-Gresa & Moya-Albiol, 2011). However, our data reveal the importance of the timing of physical maltreatment for fathers and mothers on the cycle of violence. In the case of fathers it was worst being physically maltreated before the age of 13 and in mothers after that age. The use of physical punishment during childhood and adolescence could increase the risk of suicidal ideation, depression, drug abuse, wife assaults, and child abuse in later life. However, the link is better established in childhood than in adolescence (Smith, Ireland, & Thornberry, 2005; Straus & Kantor, 1994). Gender differences of maltreatment's timing for the cycle of violence could be partially explained by differential organic and psychological development which are critical for the identity and a life narrative (Habermas & Bluck, 2000), the severity and frequency of physical assaults (Straus, Gelles, & Steinmetz, 1980) and/or the parallel history of witnessing one's own parents', sisters' and/or brothers' (Milner et al., 1990). The early physical maltreatment could be a better predictor of the current to potential risk of becoming a perpetrator of physical child maltreatment in fathers, maybe because the assault was more severe on young males (Straus et al., 1980) and/or they had a worst brain sensitivity to aversive consequences (De Bellis, 2005; De Bellis & Kuchibhatla, 2006). Moreover, in the statistical model the socio-demographic variables were also important. Thus, the role of environmental stressors such as a low family income, employment and marital status and/or the number of children at home, together with the previous history of physical victimization could partially explain the potential risk of becoming physical assault perpetrators (Uslu et al., 2010). Hence, our results supported previous findings which proposed that physically abusive families had more often significantly low income and less education, parents were younger, and more frequently presented a family history of physical victimization (Caliso & Milner, 1992; de Paúl & Domenech, 2000; Whipple & Webster-Stratton, 1991; Wolfe et al., 1988). Regarding mothers, the model pointed out the importance of the maltreatment after 13 years old, together with the stress derived of similar socio-demographic variables that affected fathers. It has been hypothesized that a cognitive process such as autobiographical memory of adolescent women is more elaborated, coherent and reflective than that of adolescent men (Fivusha, Bohanekb, Zamana, & Grapinc, 2012). Hence, the maltreatment during adolescence could be more intense, in general, for women. Nonetheless, previous studies suggested that mothers permanently victimized (childhood and adulthood) had poorer outcomes than mothers

victimized only during early childhood or adolescence (Dubowitz et al., 2001). Thus, further research is needed to analyze the importance of timing on the cycle of violence.

A limitation of our study is the cross-sectional and non-experimental design with which causality could not be addressed. Additionally, some caution should be taken in the interpretation of our findings because parents' history of physical victimization was assessed by a retrospective self-report questionnaire which may involve substantial rate of false negatives and considerable measurement errors. For this reason, future work might replicate these findings contemplating whether fathers and mothers may be from the same family, the co-occurrence of spouse and physical child abuse and the witnessing of brother or sister physical abuse. Moreover, the analysis of biological markers such as the testosterone/cortisol ratio and the neuropsychological deficits or the prenatal testosterone exposition (Romero-Martínez, Lila, Catalá-Miñana, Williams, & Moya-Albiol, 2013; Romero-Martínez, González-Bono, Lila, Moya-Albiol, 2013; Romero-Martínez, Lila, Sariñana-González, González-Bono, Moya-Albiol, 2013; Romero-Martínez & Moya-Albiol, 2013) as moderators on the relationship between the history of physical victimization and the potential risk of becoming a physical abuse perpetrator could benefit the findings offering a wider explanation of that complex phenomenon.

In conclusion, the timing of history of physical abuse in parents, the presence of continuous history of physical abuse, the parents gender and low socio-economic resources and abilities, are relevant factors to disrupt parenting practices and contribute to a heightened likelihood of occurrence of physical abusive strategies in parents that reported to be victims of more frequent physical maltreatment behaviors from a primary caregiver in childhood. These findings offer strong support for the cycle of maltreatment hypothesis and highlight the necessity for future research to identify the mediating processes that link generations in this maladaptive way. Our study target specific variables (timing of physical abuse, parents' gender and specific socio-demographic variables) which may enable professionals to select groups of parents who are in a greater need of participating in abuse prevention programs. It is important to develop intervention strategies and models to address and study the risk profiles of abusive parents, the parents needs, the education in secure attachment as well as other strategies to work with parents in order to increase the protective and resilient variables and minimize the potential risk elements of physical child abuse.

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