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Perceived parental over-protection in non clinical young adults is associated with affective vulnerability: A cross-sectional study

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Abstract

Objective. High levels of perceived parental over-protection are hypothesized to be related to relational problems, psychological distress, and development of psychiatric symptoms. Here, the main aim was to extend previous findings investigating the unique contribution of parental over-protection in predicting affective vulnerability. **Method.** 296 students were recruited and tested individually. All participants were administered self-report measures assessing parental styles [i.e., The Measure of Parental Style (MOPS)], several clinical dimensions (i.e., depressive symptoms, trait anxiety and alexithymia), and a checklist assessing socio-demographic variables. **Results.** Affective vulnerability was investigated combining anxiety, depression and alexithymia through principal axis factoring which accounted for 70.90% of the variance of the data. All MOPS subscale were positively associated with all clinical dimensions ($r > 0.13$; $p < 0.05$) and with the Affective Vulnerability factor ($r > 0.25$; $p < 0.001$). Among different forms of dysfunctional parenting, only maternal ($\beta = 0.19$; $p = 0.007$) and paternal ($\beta = 0.18$; $p = 0.010$) over-protection were independently associated with Affective Vulnerability in the linear regression analysis, even when controlling for sex, age, and education. **Conclusions.** All forms of dysfunctional parenting investigated were associated with affective vulnerability. However, at a multivariate level, only maternal and paternal over-protection remained independently associated with affective vulnerability. This study contributes to our understanding of the role of parental over-protection as a risk factor for the development of affective vulnerability and on the potentially pathogenic role played by this parental style in the development of clinical and sub-clinical conditions.

Keywords: Affective vulnerability; Childhood maltreatment; Over-protection; Perceived dysfunctional parenting; Psychopathology.

1. Introduction

Childhood maltreatment (CM) is widely demonstrated the most potent predictor of symptoms severity and negative prognosis for almost all psychiatric disorders and for affective disorders in particular (Lippard and Nemeroff, 2020). For this reason, the identification of different forms of CM is a challenging problem for researchers and clinicians. Among the most frequent causes of CM there are different types of stressful and traumatic events that occur repeatedly and cumulatively within specific relationships and contexts which are in most cases perpetrated by parents or other caregivers (Farina et al., 2019). Indeed, dysfunctional parenting, such as emotional abuse, neglect and over-protection, has been compared to other forms of CM and demonstrated to be, like other forms of early relational trauma, one of the major risk factors associated with almost all psychopathological symptoms (Adenzato et al., 2019).

A growing amount of studies explored the effect of perceived parenting on personality traits and psychopathology using self-report questionnaires such as the Parental Bonding Instrument (PBI; Parker et al., 1979), that assesses care and over-protection, and its revised version, the Measure of Parental Style (MOPS; Parker et al., 1997), that assesses perceived indifference, over-control/over-protection, and abuse for each parent. Specifically, it has been recently showed that parental over-protection may be as traumatic as other types of childhood adversities (Sar et al., 2020). Parental over-protection can be defined as maternal and/or paternal psychological over-control, intrusion and restriction of autonomy and independence (Parker, 1983; Parker et al., 1979). Like other forms of CM and developmental trauma, higher levels of perceived parental over-protection are demonstrated (Boucher et al., 2017; Lim and Barlas, 2019; Sar et al., 2020) to be related to relational problems, emotional and behavioral regulation difficulties and psychopathological symptoms (e.g., depression). Moreover, similar to other forms of CM higher levels of parental over-protection are correlated to less favorable outcomes of psychotherapy (Asano et al., 2013).

The purpose of this study was to extend previous findings investigating the unique contribution of parental over-protection in predicting affective vulnerability, a psychopathological dimension characterized by anxiety sensitivity and negative affectivity and related to several harmful psychological sequelae (McHugh and Kneeland, 2019).

2. Materials and Methods

2.1 Participants

Participants were 296 university students [73 men; mean age: 21.19±2.35 years (min/max: 18-34); mean education level: 14.89±1.50 years]. Exclusion criteria were: diagnosis/history of major neuropsychiatric disorders; inability to understand written Italian and the refusal to provided written consent. A checklist with dichotomous items was used to assess inclusion/exclusion criteria and socio-demographic data (Adenzato et al., 2019). All participants contributed voluntarily, received information about the general purpose of the research, and did not receive payment or academic credit. The study was approved by the European University's ethics review board according to the Helsinki declaration standards. A priori power analysis (G*Power 3.1 software) indicated that, a sample size of 287 was required to provide a satisfactory statistical power (1– β= 95% with to identify a small/moderate effect size (f^2= 0.085) in a two-sided test (α= 0.05) with 9 tested predictors.

2.2 Measures

Participants were individually administered the MOPS (Parker et al., 1997), the Beck Depression Inventory-II (BDI-II; Beck et al., 1996), the Spielberger's State-Trait Anxiety Inventory- Form-Y (STAI-Y; Spielberger et al., 1983) and the Toronto Alexithymia Scale (TAS-20; Bagby et al., 1994).

The MOPS is a 30-item self-report which separately assess maternal (15 items) and paternal parental (15 items) styles related to the first 16 years of life. It is the revised version of the PBI with

items grouped in three dimensions for each parent, confirmed through principal components analysis (Parker et al., 1997): indifference, over-control/over-protection, and abuse. Higher scores reflect higher self-reported dysfunctional parenting.

The BDI-II is a 21-item self-report instrument assessing depressive symptoms over the previous 2 weeks, with higher scores indicating greater severity.

The STAI-Y is a 20-item self-report questionnaire commonly used to assess state (i.e., STAI-Y1) and trait anxiety (i.e., STAI-Y2), with higher scores indicating greater severity.

The TAS-20 is a 20-item self-report measure commonly used to assess alexithymia traits (i.e., difficulty describing feelings, difficulty identifying feeling, and externally-oriented thinking) with higher scores indicating greater emotional processing impairment.

Studies examining the psychometric properties of the MOPS (Parker et al., 1997), the BDI-II (Beck et al., 1996), the STAI-Y (Spielberger et al., 1983), and the TAS-20 (Bagby et al., 1994) have demonstrated good internal consistency, construct validity, and test-retest reliability.

2.3 Statistical analyses

SPSS 18.0 statistical package for the social sciences has been used to perform all statistical analyses. Missing values were replaced with the individual's mean for the relevant total scale/subscale for protocols with 2 missing items or less. No protocols have more than two missing data. Affective vulnerability has been investigated combining trait and state anxiety, depression and alexithymia through principal axis factoring. Indeed it has been widely reported the strong association between these dimensions in both clinical and non-clinical samples (e.g., Di Tella et al., 2020; Marchesi et al., 2000). In particular, it has been recently observed that all these three factors are significant predictors of difficulties in emotion regulation. (Di Tella et al., 2020) Lastly, all these dimensions are known to be associated with CM (e.g., Brown et al., 2016).

A principal axis factoring was performed in order to reduce the number of components and to find a latent dimension explaining the relationship between the variables related to affective

vulnerability. We selected components with eigenvalues ≥1 and then calculated factor scores for each individual using the regression method.

The relationships among variables were assessed using Pearson's *r* correlation coefficients. In order to investigate the unique contributions of different forms of dysfunctional parenting on Affective Vulnerability, all MOPS subscales as well as socio-demographic variables (i.e., sex, age, level of education) were inserted in a linear regression analysis with this new latent dimension as the dependent variable. The associations were reported as standardized beta coefficients (β) and their *p* values. The predictors were entered simultaneously into the regression. Assumptions of multiple regression were checked and fixed according to Williams et al. (2013). Cook's distances was also computed. Collinearity was assessed through the statistical factor of tolerance and Variance Inflation Factor (VIF).

3. Results

Fifty-seven participants (19.3%) met the criteria for significant level of depressive symptoms (i.e., BDI-II total score≥ 20), 42 participants (14.2%) met the criteria for clinical level of trait-anxiety symptoms (i.e., STAI-Y2 total score≥ 60), and 40 participants (13.5%) met the criteria for alexithymia (i.e., TAS total score≥ 61).

The principal axis factoring analysis yielded a one-factor model with eigenvalues of 1 or higher (i.e., eigenvalues= 2.84), with all clinical variables loaded on factor #1 accounted the 70.90% of the variance of the data: BDI-II total score (0.83), TAS total score (0.63), STAI-Y1 total score (0.75), STAI-Y2 total score (0.92). All MOPS subscale were positively associated with all clinical variables as well as with the Affective Vulnerability factor ($r \geq 0.25$; **supplementary Table 1**).

Assumptions of multiple regression were respected with the exception of the Homoscedasticity. Thus, the weighted least squares (WLS) method was performed. The linear regression analysis is reported in **Table 1**. The models explained the 19% of the variability of the

Affective Vulnerability factor ($F_{9;282}$= 8.61; p< 0.001). Among different forms of dysfunctional parenting, maternal (β= 0.19; p= 0.007; **Figure 1A**) and paternal (β= 0.18; p= 0.010; **Figure 1B**) over-protection were independently associated with this new latent dimension, so that a more severe over-protection was associated with more affective vulnerability, even when controlling for the presence of socio-demographic variables. The statistical factor of tolerance and VIF showed that there were no interfering interactions between the variables (i.e., tolerance values> 0.10 and VIF of< 5). Cook's distances was also satisfactory (i.e., max value= 0.049).

4. Discussion

We explored in a sample of young adults the unique contribution of perceived parental over-protection in predicting on affective vulnerability (i.e., a latent dimension we found that explains the relationship among depression, anxiety and alexithymia traits).

Our results showed that all forms of dysfunctional parenting were associated with affective vulnerability. However, at a multivariate level, our findings show that only maternal and paternal over-protection, remained independently associated with affective vulnerability so that the higher the level of parental over-protection the higher the level of affective vulnerability. This result is significant even after controlling for the effects of sex, age, and level of education and is in line with recent studies (Boucher et al., 2017; Lim and Barlas, 2019; Sar et al., 2020) showing that higher levels of perceived parental over-protection are related to emotional and behavioral dysregulation, and psychopathological symptoms. Moreover, our results are consistent also with neurobiological and clinical data (e.g., Farber et al., 2019) that suggest, as well as for other forms of child maltreatments, a specific pathogenic role of overprotective parenting style on later functional and structural alterations of brain regions involved in generating and regulating affective states and responses to threat.

According to the attachment theory (Bowlby, 1977) a healthy development requires the balance between safeness of attachment and exploratory behaviors. Following this theoretical

framework, we suggest that the pathogenic potential of the over-protective parenting style can transmit to the child both the idea of oneself as weak and incapable to autonomously explore the environment and the idea of a threatening world. This parental style is in contrast with the more healthy and adaptive encouragement to psychological autonomy and exploration of the environment (Parker, 1983). Although a linear causal relationship between perceived over-protective parenting style and affective vulnerability cannot be affirmed, it is possible to suggest that among the consequences of this kind of parental style there are, at varying degrees of severity, the progressive restriction of autonomy in response to a world perceived as threatening (anxiety), the invalidation of one's emotions (alexithymia), and the development of feelings of worthlessness and devaluation (depression).

Different factors may contribute to explain why in our sample only parental over-protection, but not other forms of perceived dysfunctional parenting such as indifference and abuse, was independently associated with affective vulnerability. It is possible that the parental over-protection is more socially acceptable to reveal in a self-administered questionnaire and this makes it easier to emerge than abuse or indifference. It is also possible that in a non-clinical population the significant percentage of participants returning zero scores (in the range 0-3 of the MOPS) for perceived parental indifference and, particularly, for perceived parental abuse makes it difficult to draw firm conclusions about the association between affective vulnerability and these two forms of dysfunctional parenting. On the other hand, the opposite is also possible, namely that in clinical populations the role played by indifference and abuse may have often overshadowed the less obvious role played by over-protection, a role that here we contributed to highlight.

Overall, our results, consistently with previous findings (e.g., Asano et al., 2013), suggest the importance of taking into account perceived parental overprotection as an adverse event of childhood in clinical reasoning and therapeutic management.

4.1 Limitations

This study has some limitations. First, as previously mentioned, in principle we cannot exclude that the use of self-report instruments might have inhibited some participants from revealing painful experiences of one's childhood. Structured interviews conducted in clinical settings could reveal dysfunctional parenting that would otherwise be undetectable. Secondly, the present study examined dysfunctional parenting in a sample of young students. Future larger cohorts studies should recruit participants with more heterogeneous sociodemographic characteristics.

5. Conclusion

In spite of its limitations, the present study contributes to shed new light on the role of parental over-protection as a risk factor for the development of affective vulnerability and provides further support for the hypothesis authoritatively proposed by Bowlby (1977) who conceived dysfunctional parenting not only as the failure to provide care but also as the excessive over-protection or control. Thus, future research should take grater account of the potentially pathogenic role played by the over-protective parental style, both acted by the mother and by the father, in the development of clinical and sub-clinical conditions.

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293 **Legend to the Figure**
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295 **Figure 1**. **Panel A**: Scatterplot of the correlation between affective vulnerability and maternal over-
296 protection: values are adjusted (i.e., standardized residuals) for sex, age, educational level and other
297 MOPS subscales. **Panel B**: Scatterplot of the correlation between affective vulnerability and
298 paternal over-protection: values are adjusted (i.e., standardized residuals) for sex, age, educational
299 level and other MOPS subscales.
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