CHILDHOOD PARENTAL LOSS AND ADULT PSYCHOPATHOLOGY: EFFECTS OF LOSS CHARACTERISTICS AND CONTEXTUAL FACTORS*

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Abstract

The purpose of this study was to determine whether childhood parental death and childhood parental separation are linked to lifetime depressive and anxiety disorders after controlling for related risk factors. Participants were 105 individuals from the community, including a group with separation/desertion from a parent, a group with childhood parental death, and a matched control group whose parents remained married and living together. Participants completed interviews and questionnaires assessing symptoms of anxiety and depression, family psychiatric history, childhood maltreatment, and childhood parental relationships. Participants with separation/ desertion and those with parental death were significantly more likely than the control subjects to report the subsequent onset of symptoms of a depressive or anxiety disorder. These effects were not fully explained by parental relationships or childhood maltreatment. However, in the group with parental separation only, family history of depressive and anxiety disorders accounted for the apparent effect of parental separation. These findings indicate that parental death may be a specific risk factor for depressive and anxiety disorders. For parental separation/desertion, our results highlight the overriding influence of risk factors that commonly co-occur with this form of parental loss.

Keywords

parental death; parental desertion; depression; anxiety; parental bonding; parental separation

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INTRODUCTION

Childhood parental loss has long held a prominent position in developmental and psychodynamic theories about the origins of affective psychopathology [1–3]. Several decades of clinical research have documented links of early parental death and prolonged parental separations with depression [4–18] and anxiety disorders [8, 19–21]. However, numerous other studies have found no association of childhood parental death or separation with psychopathology in adulthood [22–24]. Discrepancies in this literature may be due to methodological differences, in particular with regard to definitions of parental loss (i.e., death, desertion, prolonged separations, divorce) and the composition of control groups [7]. Age or gender of the individual or the loss parent may influence the risk for psychopathology in the wake of parental loss, but the evidence for this is inconsistent [5, 7, 9, 11, 12, 16, 19, 20].

Social and neurobiological risk factors for psychiatric disorders are often associated with parental loss, particularly losses due to parental desertion or prolonged separations. Such risk factors may include chaotic environments, family history of psychiatric disorders, or low socioeconomic status (SES) [4, 7, 25]. Most studies that have examined parental separation or desertion independently have found associations with depression and anxiety disorders [4, 9, 18, 20, 26]. Childhood parental death has been the subject of numerous investigations; while many of these studies have found a link with anxiety and/or depressive disorders [5, 8–12, 16, 19, 20], several negative investigations have been reported [22, 26, 27]. A number of studies have compared the effects of parental separation versus parental death and found that prolonged separation is a more robust predictor of depression than parental death [4, 9, 13, 26].

Only a few investigations have examined or controlled such potentially critical factors as cause of death (e.g., suicide) [8, 28], history of parental mental illness [4, 7], and relationships with parents [4, 7, 13, 26], which themselves are risk factors for adult psychopathology. There is evidence that the quality of parental relationships may account for the association of parental death or prolonged separation with adult psychopathology [4, 7, 13, 26]. On the other hand, genetic factors could be involved, given that suicide and parental separation or desertion may be directly related to parental mental illness. Parental suicide, but not non-suicidal parental death, has been associated with bipolar disorder [28, 29]; this link may be at least partially due to shared genetic risk for bipolar disorder and suicide. Only a few prior studies have examined the influence of family history of psychopathology in relation to the association of parental death or separation with depressive or anxiety disorders. One of the existing studies of this issue did not find a difference between those with or without a history of early parental loss (death or permanent separation) in the rate of affective disorder in first degree relatives [4]. Two large twin studies of men [30] and women [9] found that a family history of depression in the co-twin and parents was predictive of parental loss in the proband. As these investigations combined individuals with parental death and parental separations, it is not clear whether this effect may be specific to either type of parental loss.

We undertook the present study to address these issues and determine whether risk factors related to parental death and parental separation/desertion, including a family history of mood and anxiety disorders, cause of parental death, and parental relationships, could account for the association of childhood parental loss with depressive and anxiety disorders.

METHODS

Subjects

Participants were 105 adults aged 18–59 (mean ± *SD*, 32.9 ± 12.1); there were 63 females and 42 males. Most of the subjects were Caucasian (*N* = 87, 82.9%), five were African American, four were Hispanic, four were Asian, and five did not report their race. Subjects were recruited from the community for one of several thematically and methodologically similar studies which assessed the relationship between childhood experiences, neuroendocrine stress reactivity, and risk for certain psychiatric disorders. Findings on the neuroendocrine correlates of parental loss are reported elsewhere [31]. Advertisements for: 1) healthy adults; 2) adults suffering from depression; 3) individuals with a history of early-life stress; and 4) individuals with a history of early parental loss were posted in the community and on Internet advertising sites. None of the advertisements mentioned both depression and a history of early stress or loss, and these advertisements were not posted during the same time period in the same site. Exclusion criteria for this group of studies included unstable medical illness, endocrine diseases, current use of psychotropic medication, and diagnosis of psychotic disorder, bipolar disorder, or post-traumatic stress disorder (PTSD). This investigation was approved by the Butler Hospital Institutional Review Board, and all subjects gave voluntary written informed consent to participate.

Parental Loss Groups—Thirty-five individuals who had experienced the death of a parent before the age of 18 were included in this study (Death group). Fourteen of these participants were male and 21 were female. Parental death was primarily due to natural causes (*n* = 26; including heart disease, *n* = 7; cancer, *n* = 8; liver disease, *n* = 4; vascular disease, *n* = 2; "natural causes," *n* = 1; blood disorder, *n* = 1; renal failure, *n* = 1; multiple organ failure, *n* = 1; and influenza, *n* = 1). Accidental death was reported in six cases (including drug overdose, *n* = 1; motor vehicle accident, *n* = 2; death from assault or gun-shot wound, *n* = 3). In three cases, the death was due to suicide. Two subjects were adopted at birth and it was the adoptive parent who died; none of the other subjects in this group experienced separation in addition to parental death.

A second loss group was comprised of participants who, before the age of 18, had prolonged separations or desertion by a parent (*N* = 35; Separation/Desertion group). Fourteen of these participants were male and 21 were female. Twenty-eight of the subjects in the Separation/Desertion group experienced permanent desertion; two of these subjects were deserted by a second caregiver before the age of 18. Four subjects experienced non-permanent parental separation that lasted for at least 8 months (mean 47 months, standard deviation 36.7 months) and involved no contact or very infrequent contact with the parent. Three subjects were adopted at least 4 months after birth (mean 7.3 months, standard deviation 4.2 months).

The Death and Separation/Desertion groups were matched on age and gender to 35 subjects (14 males and 21 females; No Loss group) with no parental death, separation or divorce before age 18. In addition, the No Loss group was matched to the two loss groups on a measure of socioeconomic adversity during childhood. Participants were considered to have had socioeconomic adversity if they endorsed the statement, "I grew up in an area of high crime," or if they declared false the statement, "My family was generally financially stable when I was growing up, and all of my basic needs (food, shelter, and clothing) were met during my childhood." Only two participants scored on both items.

Interviews and Measures of Psychiatric Symptomatology

Structured Clinical Interview for DSM-IV (SCID)—Participants were classified with regard to whether or not they met the criteria for a lifetime history of a depressive disorder

(major depression, dysthymia, depressive disorder not otherwise specified) or an anxiety disorder (generalized anxiety disorder, social phobia, panic disorder, anxiety disorder not otherwise specified).

Family History-Research Diagnostic Criteria (FH-RDC)—Participants reported on the history of symptoms of Axis I disorders among their parents and siblings using the FH-RDC. This semi-structured interview has high specificity and moderate sensitivity in comparison to direct interview [34, 35]. As with participant diagnoses, family members (including loss parents) were categorized as to whether they met the FH-RDC criteria for a depressive disorder or an anxiety disorder. Such disorders may have occurred prior to or following the death or separation/desertion in question. Two participants in the Death group and five in the Separation/Desertion group did not have FH-RDC data due to a lack of information about the biological relatives in subjects in the Death and Separation/Desertion groups.

Parental Bonding Instrument (PBI)—Participants retrospectively rated their childhood experience of parental behaviors and attitudes on dimensions of care and overprotection for each parent using the PBI. The PBI has good reliability and validity [37]. For the Death and Separation/Desertion groups, reports of parental care and overprotection were included for the surviving parent. For the No Loss group, average scores for parental care and overprotection were calculated by taking the average of scores for the mother and the father. Five participants in the Separation/Desertion group lost both parents and did not complete the PBI.

The Childhood Trauma Questionnaire (CTQ)—The 28-item version of the CTQ, used in this study, has high internal consistency and good test-retest reliability [38]. The CTQ has five subscales (emotional abuse, physical abuse, sexual abuse, emotional neglect, and physical neglect). A total score provides an overall summary (childhood maltreatment); the total score was used in the present investigation.

Measures of Stress and Psychiatric Symptoms

The Perceived Stress Scale (PSS) assesses the degree to which an individual considers current circumstances in his or her life to be stressful. *The Inventory of Depressive Symptomatology—Self-Report* (IDS-SR) [39] and the *Spielberger State-Trait Anxiety Inventory Form-Y* [40] were used to assess depressive symptoms and anxiety, respectively.

Statistical Analyses

Analyses were conducted using SPSS 14.0.2 for Windows. All analyses were two-tailed with alpha set to 0.05. Bivariate associations were tested with correlation coefficients, chi square, and analysis of variance (ANOVA) with post hoc Tukey HSD tests. A sequential logistic regression was conducted to evaluate whether parental death or separation/desertion was predictive of the occurrence of depressive and anxiety disorders after controlling for childhood experiences. In the first block, parental care (PBI), parental overprotection (PBI), and childhood maltreatment (CTQ) were entered. Next, parental loss was entered as a categorical variable with three levels, No Loss, Death, and Separation/Desertion.

Characteristics of the parental death or separation/desertion that might impact the development of a depressive or anxiety disorder were analyzed as predictors of diagnostic category using chi square and *t*-tests and including only participants with a history of childhood parental loss. Loss type (Separation/Desertion or Death), age at loss, gender of the subject, and gender of the parent were examined. In addition, a standard logistic regression examined the relationship between diagnosis and the interaction of gender of subject ×

gender of parent, in order to determine if the importance of parent gender differed as a function of participant gender. A second logistic model with only subjects of both loss groups tested whether relationships with the remaining parent influenced the likelihood of a depressive/anxiety disorder diagnosis.

Finally, we examined if a family history of depressive or anxiety disorders would be predictive of depressive/anxiety outcomes in the participant. The number of first-degree relatives with a history of a depressive or anxiety disorder was summed (1.0 ± 1.2), the total number of first-degree relatives with adequate historical information was summed (3.6 ± 1.6), and the percent of available relatives with a positive history was calculated (28.6 ± 31.2%) as an approximation of family history. Because this variable was positively skewed, non-parametric Mann-Whitney U tests and logistic regression were used to evaluate the relationship with participant diagnosis.

RESULTS

Clinical Characteristics

Table 1 shows the characteristics of the sample according to loss group. The Death and Desertion/Separation groups each had higher depressive symptom scores on the IDS-SR than the No Loss group, and the Desertion/Separation group differed from the control group with regard to Childhood Maltreatment, perceived stress, and family history of psychopathology. In addition, the Death group was older at the time of parental loss than the Desertion/Separation group. Additionally, there was no significant difference in the racial distribution across the three groups.

Lifetime diagnoses are shown in Table 2. Two participants in the Death group had onset of a major depressive episode prior to the death of the parent; these subjects were excluded from the remaining analyses. None of the depressive or anxiety disorders in the Separation/Desertion group began prior to the parental loss. The Death and Separation/Desertion groups each had significantly higher rates of mood or anxiety disorders than the No Loss group (χ^2 = 7.12, $p < .01$; χ^2 = 7.12, $p < .01$, respectively). A breakdown of the depressive and anxiety disorders is presented in Table 2. The table also shows the lifetime prevalence of substance use disorders; the groups did not differ according to substance diagnoses.

Factors Predicting Participant Diagnosis

Analysis of the inter-relationships of the predictor variables revealed that childhood maltreatment was highly negatively correlated with parental care ($r = -.77$, $p < .001$) and had a more modest positive correlation with parental overprotection ($r = .27$, $p < .01$). Parental care and parental overprotection were negatively correlated ($r = -.31$, $p < .005$). In preparation for the logistic regression models, multicollinearity was assessed by entering these predictor variables with the parental loss variable in a standard multiple regression with collinearity diagnostics. Tolerance values indicated that multicollinearity was not present. In the sequential logistic regression predicting the dichotomous dependent variable lifetime diagnosis of any depressive or anxiety disorder, the model with just the independent variables parental care, parental overprotection, and childhood maltreatment entered as the predictors had a good fit ($\chi^2(3) = 14.28$, $p < .005$) and accounted for 18% of the variance (Nagelkerke $R^2 = .18$). The second block which added the parental loss independent variable with three levels (No Loss, Death, and Separation/Desertion) significantly added to the prediction of subject diagnosis ($\chi^2(2) = 6.15$, $p < .05$), and the final model accounted for 25% of the variance in diagnostic category ($\chi^2(5) = 20.43$, $p = .001$, Nagelkerke $R^2 = .25$). As shown in Table 3, parental care was a significant negative predictor of lifetime diagnosis; the odds of having a diagnosis decreased by approximately 12% for each increase of one

point on this scale. Parental overprotection and childhood maltreatment (as assessed by the CTQ) were not significant after controlling for parental care. Separation/Desertion and Death were both significant predictors of lifetime depressive and anxiety disorders. For each loss group, a diagnosis of a depressive or anxiety disorder was more than three times more likely for the loss group than for the control group. An additional logistic regression added an interaction term which tested whether parental care moderated the effects of either type of parental loss; this was not significant.

Chi square analyses testing whether the likelihood of having a lifetime diagnosis differed based on loss characteristics (type of loss, gender of the participant, and gender of the parent) were not significant. On average, those who developed a disorder experienced parental loss at 7.6 ± 6.0 years old and those who did not develop a disorder experienced the loss at 6.6 ± 5.1 years old. The time from age at parental loss (either Death or Separation/Desertion) to age at assessment was calculated to determine whether this would influence diagnosis. There were no significant differences in those who developed a depressive or anxiety disorder and those who did not with regard to time since loss in either the Death or Separation/Desertion groups. Of the three participants with parental death due to suicide, one was eliminated from further analyses due to onset of illness prior to the loss. Of the remaining two participants, one had a history of major depression and the other had no history of depressive or anxiety disorder. The logistic regression testing for an interaction of participant gender with parent gender was not significant.

The logistic regression that was conducted only in the loss (Death and Separation/Desertion) subjects to determine the effect of parental relationships with the remaining parent was significant. The model showed a good fit ($\chi^2(2) = 9.74$, $p < .01$), and explained nearly 20% of the variance (Nagelkerke $R^2 = .19$). Parental care was a significant negative predictor in this model ($B = -.088$, Wald(1) = 6.14, $p < .05$, odds ratio = .92); overprotection was not significant.

Family History of Psychopathology

The family history analysis revealed that the Separation/Desertion group had a larger percent of first-degree relatives with a depressive or anxiety disorder than the No Loss group ($Z = -2.31$, $p < .05$). The Death group was not significantly different from the No Loss group with respect to family history ($Z = -1.80$, $p = .07$). Within the Separation/Desertion group, those participants with a depressive or anxiety disorder had stronger family histories of depressive or anxiety disorders ($Z = -2.19$, $p < .05$), but this was not the case for the Death group or the No Loss group ($p = .40$ and $p = .80$, respectively). In order to determine whether family history could account for the prior association between Separation/Desertion and participant diagnosis, a standard logistic regression was conducted with the Separation/Desertion and No Loss control groups controlling for childhood maltreatment and parental care and overprotection (see Table 4). This model was significant ($\chi^2(5) = 17.93$, $p < .005$) and accounted for 33% of the variance in outcomes. Only family history was a significant predictor ($B = -.026$, Wald(1) = 5.43, $p < .05$). Parental care did not reach significance ($p = .06$) and the remaining variables, including Separation/Desertion ($p = .26$), were not significant after controlling for family history. An additional logistic regression added an interaction term which tested whether family history moderated the effects of either type of parental loss; this was not significant.

DISCUSSION

In this study we examined the association between parental loss and lifetime history of depressive and anxiety disorders, with particular emphasis on sources of risk for these disorders that may co-occur with parental loss and confound the relationship. Elevated rates

of depressive and anxiety disorders were seen in the two loss groups in comparison with the matched control group, and also in comparison with rates from large epidemiological studies [41, 42]. All of the loss subjects with a disorder who were included in the analyses had onset *following* the loss of the parent, and the increased rates were not accounted for by differences in demographic factors, childhood maltreatment, or childhood parental relationships. It has been speculated that the link between parental separations and offspring psychiatric diagnoses may be due to the effects of environmental disturbances that are associated with separations [4, 7, 9, 25, 43]. In the present study, although poor parental care and childhood maltreatment were significant correlates of lifetime diagnosis, these factors did not account for the effect of parental separation.

However, although family history was not linked to diagnosis in participants with parental death, a family history of depressive or anxiety disorders did appear to account for the effect of parental separations. In fact, when family history was entered into the logistic regression for the parental separation and control groups, it was the only significant predictor of lifetime diagnosis. A family history of mental illness may be associated with psychosocial instability, either through effects of the illness on environmental influences such as parenting or socioeconomic factors, or via genetic effects. Indeed, genetic factors explain a modest portion of the variance in a number of environmental experiences [30], including the likelihood of divorce [44], and there is a large genetic correlation between the liability to relationship breakup and risk for major depression [45]. To our knowledge, this is the first study to demonstrate that the association between parental separation and depressive or anxiety disorders is accounted for by a family history of such disorders.

Insofar as parental death may be due to random factors that are unrelated to risk for depressive and anxiety disorders, it is not surprising that family history cannot account for the relationship with lifetime diagnosis in this group. Indeed, participants with a history of parental death did not differ from the comparison group with regard to relationships with parents, childhood maltreatment, or perceived stress, suggesting that parental death was not associated with a disturbed family environment. In addition, only two of the deaths were due to suicide, and only one of these participants had a lifetime history of depressive or anxiety disorder. However, it is important to note that we relied upon single-informant information regarding family history, which is subject to error and bias. In particular, it is possible that participants who have a current or past history of a disorder may be more likely to identify or report such illnesses in their family members. Alternatively, it may be the case that the family members developed onset of their illness in the wake of the loss. However, neither of these possibilities would explain the fact that family history was only linked to participant diagnosis in those with a history of parental separation or desertion. Another limitation regarding the family history data for the separation group in particular is that five of these participants were missing family history data. Four of these five cases had a lifetime depressive or anxiety disorder, so it is possible that inclusion of these participants in the analyses would have altered the results.

Our findings for parental death are consistent with the developmental and clinical literature describing such losses as primary influences in the etiology of depression and anxiety disorders. However, previous investigations of the link between parental death and psychopathology have yielded conflicting findings. Putative moderators of the effect of parental loss, including the sex of the parent and age at loss, did not explain our results. However, it is important to note that a variety of depressive and anxiety disorders were included in the diagnostic category, so that the effect of loss in this sample was not specific to major depression. This indicates that childhood parental loss may predispose to a spectrum of disorders and further suggests the possibility that prior studies that did not find

an effect of parental loss on depression might have been too restrictive in terms of the range of outcomes examined.

The results of this study should be appreciated in the context of several limitations. The sample may not be representative of the general population given the modest sample size and the recruitment method. In addition, due to the sample size we were unable to examine associations with specific disorders and instead used a broad outcome category. Further, our family history data are limited by the use of participant report regarding family member symptomatology and the absence of data on offspring. In addition, although we adjusted the family risk estimate based on the number of available relatives, we did not adjust for age at risk of the relatives. Finally, the cross-sectional design involved the use of retrospective measures, which may be subject to recall biases. However, as parental death and significant separations are generally discrete and objective events, reports of their occurrence are not likely to be highly influenced by recall biases.

In addition to psychodynamic conceptualizations of the link between parental death and risk for psychopathology, there is evidence at a neurobiological level for this association. Major depression and some anxiety disorders are characterized by abnormalities of hypothalamic-pituitary-adrenal (HPA) axis function, including hypersecretion of corticotropin-releasing hormone (CRH) and alterations in the sensitivity of glucocorticoid negative feedback mechanisms [46, 47]. A rodent model of maternal separation during the early postnatal period shows similar alterations of HPA axis function that are associated with behavioral indices of distress, persist into adulthood, and have been reversed with selective serotonin reuptake inhibitors [48–50]. Recent work indicates that an analogous process may occur in humans. Early parental loss has been associated with increased basal and provoked cortisol concentrations in studies of children and adults [21, 51–53]. In a related study of adults with no current Axis I psychiatric disorder which included some of the participants in the present investigation, we found that childhood parental death and desertion/separation were associated with increased cortisol responses to a neurobiological challenge test and that subjects with parental desertion and very low levels of parental care had attenuated cortisol responses to the test [31].

The importance of parental relationships was also a key finding of the present study. Parental care was a negative predictor in the overall regression model, and was also a significant predictor in the model that included only the loss groups and their relationship with the remaining parent. Taken together with the studies discussed above showing moderating effects of family relationships on HPA axis function following parental loss, these findings serve to highlight the importance of contextual factors in determining the sequelae of childhood loss. Moreover, while some forms of parental loss (e.g., deaths due to illness) are unavoidable, other types of loss, such as desertion or death due to suicide and some accidents, may be preventable. Future larger studies that control for confounding factors and examine possible neurobiological mechanisms of the effects of loss will offer additional insight into the development and prevention of depressive and anxiety disorders.

Acknowledgments

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Table 1

Subject Characteristics, Mean (*SD*)

Variables	No Loss Group (*n* = 35)	Death Group (*n* = 35)	Separation/Desertion Group (*n* = 35)
Age	33.4 (12.4)	31.9 (11.2)	32.5 (12.6)
Sex (*N* Female)	21	21	21
Socioeconomic adversity	6	6	7
Depressive symptoms	9.8 (8.3)	14.5 (9.2)[*]	16.1 (9.8)[**]
Perceived stress	19.5 (6.5)	21.8 (7.0)	24.3 (6.5)[†]
State anxiety	31.4 (10.4)	33.5 (10.5)	35.3 (11.3)
Trait anxiety	33.9 (10.6)	35.6 (8.9)	38.5 (11.3)
Childhood maltreatment	7.4 (2.5)	8.3 (3.0)	9.3 (3.4)[‡]
Parental care	24.5 (6.4)	23.8 (8.5)	23.6 (9.7)
Parental overprotection	13.8 (6.9)	11.9 (7.1)	13.2 (8.4)
Age at parental loss	N/A	10.4 (4.7)	3.9 (4.5)
Loss parent was father (*N*)	N/A	27	27
Loss parent was mother (*N*)	N/A	8	8
Family history of psychopathology (*N*, %)	15.0 (27.8)	18.0 (33.3)	21.0 (38.9)[*]

Note: Symbol denotes significant differences from Control Group.

[*] $p < .05$,

[**] $p < .01$,

[†] $p < .005$, and

[‡] $p < .001$. Childhood Maltreatment was assessed with the CTQ. The Desertion/Separation and Death Groups only differed significantly on Age at Parental Loss ($p < .001$). Family history of psychopathology refers to one or more first degree relatives meeting FH-RDC criteria for a diagnostic.

Table 2

Lifetime History of Axis I Diagnoses

Variables	No Loss Group (n = 35)		Death Group (n = 35)		Separation/Desertion Group (n = 35)	
	N	%	N	%	N	%
Depressive/anxiety disorder	9	25.7	19	54.3	20	57.1
Major depression	8	22.9	13	37.1	11	31.4
Dysthymic disorder	1	2.9	1	2.9	6	1.7
Depressive disorder NOS	0	0.0	3	8.6	4	11.4
Panic disorder	1	2.9	0	0.0	0	0.0
Generalized anxiety disorder	1	2.9	1	2.9	0	0.0
Social phobia	0	0.0	1	2.9	1	2.9
Obsessive-compulsive disorder	0	0.0	0	0.0	1	2.9
Anxiety disorder NOS	0	0.0	3	8.6	4	11.4
Substance disorders	5	14.3	7	20.0	5	14.3

Note: NOS indicates "Not Otherwise Specified."

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Table 3

Logistic Regression Predicting Likelihood of a Lifetime Diagnosis of a Depressive or Anxiety Disorder

	B	**Wald**	*p*	**Odds**	**95% CI**
Parental care	−0.12	5.48	0.02	0.88	0.81–0.98
Parental overprotection	−0.03	0.52	0.47	0.98	0.91–1.04
Childhood maltreatment	−0.02	0.02	0.90	0.98	0.76–1.28
Death	1.21	4.56	0.03	3.36	1.11–10.23
Separation/desertion	1.27	4.25	0.04	3.56	1.07–11.88

Table 4

Logistic Regression Predicting Likelihood of a Lifetime Diagnosis of a Depressive or Anxiety Disorder in the Desertion/Separation Group

	B	**Wald**	*p*	**Odds**	**95% C.I.**
Parental care	−0.13	3.63	0.06	0.88	0.77–1.00
Parental overprotection	−0.51	1.32	0.25	0.95	0.87–1.04
Childhood maltreatment	−0.02	0.01	0.92	0.98	0.69–1.40
Separation/desertion	0.779	1.26	0.26	2.18	0.56–8.52
Family history	0.26	5.43	0.02	1.03	1.00–1.05