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RISK FACTORS FOR ANXIETY DISORDERS: COMMON AND SPECIFIC EFFECTS IN A NATIONAL SAMPLE

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Abstract

Background—Anxiety disorders and major depressive disorder (MDD) often co-occur and share a broad range of risk factors. The goal of this study was to examine whether the co-occurrence of anxiety disorders and MDD could be explained by an underlying latent factor and whether the risk factors exert their effect exclusively through this factor, directly on each disorder, or through a combination of effects at both levels.

Methods—Data were drawn from a large, nationally representative sample. Confirmatory factor analysis was used to identify the latent structure of anxiety disorders. A multiple indicators multiple causes (MIMIC) approach was used to assess the common and specific effects of risk factors for anxiety disorders.

Results—A one-factor model provided a good fit to the co-occurrence of anxiety disorders. Low self-esteem, family history of depression, female sex, childhood sexual abuse, White race, years of education, number of traumatic experiences, and disturbed family environment increased the risk of anxiety disorders and MDD through their effect on the latent factor. There were also several direct effects of the covariates on the disorders, indicating that the effect of the covariates differed across disorders.

Conclusions—Risk for anxiety disorders and MDD appears to be mediated partially by a latent variable underlying anxiety disorders and MDD, and partially by disorder-specific effects. These findings may contribute to account for the high rates of comorbidity among disorders, identify commonalities in the etiologies of these disorders, and provide clues for the development of unified preventive interventions.

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Keywords

risk factors; anxiety disorders; common effects; specific effects; conceptual model

Anxiety disorders and major depressive disorder (MDD) are among the most common mental disorders in the United States,[1] with high individual and societal burden derived from their considerable associated work and social impairment.[2,3] Decreasing the burden of anxiety disorders and MDD is an important public health priority. Anxiety disorders often co-occur with each other and with MDD[4,5] suggesting the existence of a latent structure that may parsimoniously explain these patterns of comorbidity[6–9]. Several studies have examined the genetic liability of anxiety disorders and MDD, and consistently concluded that most of this genetic liability is exerted at the level of the latent variable,[8, 10–13] rather than at the disorder-specific level. Because anxiety disorders and MDD share a broad range of other risk factors,[14–24] an essential step in the development of more effective treatment and prevention interventions is to determine whether those factors exert their effect through the common latent variable, directly on each disorder, or through a combination of effects at both levels.[14, 16, 25]

We sought tsreo address this gap in knowledge by drawing on data from a large, nationally representative survey to compare the common and the specific contribution of a set of observable risk factors to risk of anxiety disorders and MDD. We followed a conceptual model of risk factors, which was initially developed by Kendler and colleagues to examine the prevalence of MDD,[26, 27] but seems to be applicable to other internalizing disorders.[28] Because anxiety disorders often co-occur with each other and with MDD and seem to have a partially shared liability,[8, 13, 14] prior to our analyses, we hypothesized that the comorbidity structure of anxiety disorders and MDD would be well described by a single latent variable and that the risk factors postulated in Kendler's model would exert part of their effect through this latent variable. However, because the prevalence and course of the different anxiety disorder and MDD does not fully overlap[29–31] and they also have nonshared variance, we also hypothesized that the risk factors would also partially exert their effect directly on the individual disorders.

METHODS

SAMPLE

The National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) sample is a nationally representative sample of the adult population of the United States. The NESARC target population was the civilian noninstitutionalized population consisting of 18 years and older residing in households and group living quarters, including residents of the continental United States, Columbia, Alaska, and Hawaii. The 2004–2005 Wave 2 NESARC is the second wave longitudinal follow-up of the Wave 1 NESARC, conducted in 2001–2002. The first wave included face-to-face interviews with 43,093 respondents, yielding an overall response rate of 81.0%.[32,33] The Wave 2 interview was conducted approximately 3 years later. Excluding individuals who were ineligible (e.g., deceased), the response rate in Wave 2 was 86.7% (n = 34,653).[32] Wave 2 NESARC data were adjusted for nonresponse

based on sociodemographic characteristics and presence of any lifetime Wave 1 NESARC psychiatric disorder. The adjusted data are representative of the civilian population of the United States based on the 2000 Decennial Census.[34] The research protocol, including informed consent procedures, received full human subjects review and approval from the U.S. Census Bureau and the U.S. Office of Management and Budget. Because several of the risk factors included in our conceptual model were only measured in Wave 2, the sample for this study was composed of all individuals who participated in both waves (n = 34,653).

MEASURES

DSM-IV Anxiety Disorders and MDD—All psychiatric diagnoses were made according to DSM-IV-TR criteria[35] using the Alcohol Use Disorder and Associated Disabilities Interview Schedule—DSM-IV Version (AUDADIS-IV), Wave 2 version.[36,37] The lifetime DSM-IV anxiety disorders included panic disorder, social anxiety disorder (SAD), specific phobia, PTSD and generalized anxiety disorder (GAD). Obsessive-compulsive disorder was not assessed in the NE-SARC, and thus was not included in this study. By contrast, based on its high comorbidity with anxiety disorders and to be consistent with and build on Kendler's original model, we included MDD in our study. AUDADIS-IV has shown fair to good test–retest reliability in the general population for anxiety disorders and MDD.[33,38]

Conceptual Model—In accord with prior genetic and epidemiologic research, we conceptualized the individual anxiety disorders as indicators of an underlying latent variable and sought to examine whether the risk factors exerted their effect through this latent variable or through direct effects on the disorders. Also consistent with previous research,[26–28] we selected our risk factors based on a conceptual model for risk factors, which addresses the etiologic complexity of internalizing disorders.[14–24] The risk factors included were family history of depression,[33,38] low parental warmth (assessed with the neglect items of the Child Trauma Questionnaire[39]), parental loss before age 18, disturbed family environment (operationalized, as in previous studies, as parental absence or separation from a biological parent before age 18),[40,41] childhood sex abuse (also measured with items from the Child Trauma Questionnaire), history of conduct disorder (assessed with the AUDADIS),[15] low self-esteem (a binary variable considered present if probands believed they were not as good, smart, or attractive as most other people), number of traumatic experiences prior to age 21, history of substance use disorder (SUD) prior to age 21 (assessed with the AUDADIS, using methods previously reported by our group),[42,43] and years of education (measured by self-report). The model also controlled for race/ethnicity and sex.

To minimize the risk that the results were due to reverse causality that could arise if the onset of the disorders preceded the occurrence of the risk factors, we repeated our analyses restricting our sample to individuals whose onset of anxiety disorders was after age 21, to ensure that all risk factors were present before the onset of any anxiety disorder. Because the results of both analyses are very similar, we present the results of the full sample and indicate differences with the results of the restricted sample. Full results of the restricted sample are available upon request.

STATISTICAL ANALYSIS

To assess the association between all risk factors and the five anxiety disorders and MDD, separate logistic regressions were run for each disorder including all risk factors simultaneously, and odds ratios (ORs) and 95% confidence intervals are presented. Given previous results indicating the five anxiety disorders and MDD load on a single factor, we then performed a confirmatory factor analysis (CFA) to assess the fit of a one-factor model. Goodness-of-fit measures including the comparative fit index (CFI), Tucker–Lewis index (TLI), and root mean squared error of approximation (RMSEA) were used to assess fit. Hu and Bentler recommended CFI and TLI values above .95, and RMSEA values below .06, as representing good model fit.[44] We also examined the eigenvalues of the tetrachoric correlation matrix to quantify what percentage of the variability in the anxiety disorders was explained by a single common factor.

We used a multiple indicators multiple causes (MIMIC) approach[45] to assess the common and specific effects of the different risk factors. The MIMIC model is a special case of structural equation modeling (SEM) that includes three sets of relationships: (1) the measurement model, which describes the relationships between the indicators (in this case, the five anxiety disorders and MDD) and the latent factors; (2) the structural model, which describes the relationships between the latent factors and the covariates (in this case, the risk factors); and (3) the relationships between the indicators and the covariates (i.e., risk factors), called the direct effects, because they indicate effects of the covariates on the indicators that are not mediated through the factors (i.e., are still present after adjusting for the effect of the covariates on the latent factors).[46] In this approach, the structural model represents the effect of the covariates (i.e., risk factors) on the latent factor (i.e., the effect of the risk factors on the shared latent liability), whereas the direct effects represent the disorder-specific effects of the risk factors. For example, if the coefficient of a predictor (e.g., family history of MDD) on the latent factor is positive, but the coefficient of the direct effect on a disorder is negative (e.g., specific phobia), the interpretation would be that predictor increases the overall risk of disorders represented by the latent factor, but this increase in risk is smaller for the specific disorder with the negative direct effect (in this case, specific phobia) than for the other disorders in the factor. By contrast, if the coefficient of the direct effect is also positive (e.g., in the case of MDD), this would mean that family history of MDD increases the risk of MDD even more than for the other disorders in the factor.

Modification indices were used to identify whether direct (i.e., specific) effects from risk factors to specific disorders were warranted using a conservative cutoff for determining statistical significance following previously established procedures.[47] Specifically, we used a modification index cutoff of 10 corresponding to a chi-square test with 1 degree of freedom and a critical value of .001 to identify predictors with significant direct effects.

All analyses were conducted in Mplus Version 6.1,[46] which takes into account the NESARC sampling weights and design effects in all analyses, including parameter as well as standard error estimation and model fit calculations. The default estimator for the analysis was the variance-adjusted weighted least squares (WLSMV), a robust estimator that does

not assume normally distributed variables and provides the best option for modeling categorical or ordered data.

RESULTS

BIVARIATE ASSOCIATIONS BETWEEN RISK FACTORS AND ANXIETY DISORDERS

In the bivariate analyses, female gender, family history of MDD, disturbed family environment, childhood sexual abuse, low self-esteem, and lower educational attainment all increased the risk of all anxiety disorders and MDD. White race increased the risk of all disorders except PTSD, conduct disorder increased the risk of SAD and specific phobia, and the number of traumas before age 21 increased the risk of panic disorder, PTSD, and GAD. Early parental loss increased the risk of PTSD, but decreased the risk of panic disorder, whereas SUD before age 21 decreased the risk of SAD, specific phobia, and PTSD (Table 1).

FACTOR ANALYSIS

Fit indices for the CFA model with one factor were $\chi^2 = 130.11$, $df = 9$, $P < .001$; CFI = .99; RMSEA = .02; standardized root mean square residual (SRMR) = .03, indicating an excellent fit. All loadings were at least 0.60, further indicating the adequacy of a single-factor solution. Eigenvalues (3.1, 0.8, 0.6, 0.6, 0.5, 0.4) indicated the presence of one common factor that explained 3.1/6 = 52% of the shared variance in the anxiety disorders and MDD. GAD had the largest loading (0.78), followed by panic disorder (0.70), SAD (0.69), specific phobia (0.63), PTSD (0.57), and MDD (0.51; Fig. 1).

COMMON AND SPECIFIC EFFECTS OF INDICATORS ON ANXIETY DISORDERS

Overall, the risk factors explained 46% of the variance in the common factor for anxiety disorders and MDD. After adjusting for other covariates, risk factors that had a statistically significant independent effect on the latent variable included low self-esteem, family history of MDD, female sex, childhood sexual abuse, White race, years of education, number of traumatic experiences by age 21, and disturbed family environment (Fig. 1).

Consistent with the varying magnitudes of the ORs of the risk factors with different anxiety disorders, there were several significant direct effects, indicating that the effect of the risk factors was not completely mediated through the latent variable (Table 2 and Fig. 1). The total effects of the covariates on each disorder, which are calculated by combining the indirect (i.e., mediated through the factor) and direct (i.e., without mediation through the factor) effects, are presented in Table 2. For example, the total effect of female gender on SAD (−0.14) was the result of adding the indirect effect (0.31) to the direct effect (–0.44), whereas the effect of low self-esteem on SAD was 0.82, resulted from combining the indirect (0.48) and direct (0.34) effects. In most cases, after adjusting for the effect of the other covariates in the model, the total effects were positive, indicating that the presence of the risk factor increased the likelihood of having the disorder.

ADDITIONAL ANALYSES

The CFA of the subsample with onset of the first anxiety disorder after age 21 also indicated that a one-factor model had excellent fit $\chi^2 = 119.22$, $df = 9$, $P < .001$; CFI=.98; RMSEA=.02;SRMR=.05 with all loadings over 0.53.

After adjusting for other covariates, all of the risk factors that had a significant effect on the latent factor in the whole sample remained significant in the subsample with onset of the first anxiety disorder after age 21. However, modification indices for this model indicated that only 8 of the 19 direct effects that were significant in the whole sample remained significant in this subsample: after adjusting for the effects of the covariates on the common factor, female gender decreased the probability of SAD but increased the probability of specific phobia and MDD, White race decreased the probability of PTSD, family history of MDD decreased the probability of SAD and specific phobia but increased the probability of MDD, and low self-esteem increased the probability of SAD (data available upon request).

DISCUSSION

In a large, nationally representative sample, we examined whether (1) the comorbidity structure of anxiety disorders and MDD was well explained by a single latent variable; (2) a comprehensive model initially developed to explain the etiology of MDD could also contribute to explain the risk of anxiety disorders; and (3) the risk factors of that model exerted their effect through a common latent variable or through disorder-specific effects. We found that a single factor described well the comorbidity structure of anxiety disorders and MDD, and that both common and disorder-specific effects explained the relationship between risk factors and anxiety disorders and MDD.

In accord with previous research,[8, 10–13] a single factor described the latent structure of five anxiety disorders and MDD well,[48] supporting the existence of a latent shared risk for these disorders. Previous studies have shown that part of this shared risk is due to shared genetic and environmental liability.[8, 13, 14] Our study extends these prior findings by identifying some of the risk factors that may underlie those shared liabilities. The risk factors examined in this study were based on a conceptual model for risk of MDD, and had previously shown promising results in also predicting the risk of GAD.[28] Our study suggests that the model may have broader applicability than previously thought and may help understand the etiology of a wider range of internalizing disorders and their high rates of co-occurrence. Furthermore, the finding that the disorders differed in their loadings on the latent factor indicates that the disorders have shared but also specific risk factors. In particular, MDD had the lowest loading, suggesting that MDD may stand a bit apart from the anxiety disorders, as previously suggested.

In accord with previous studies,[15, 28, 49] when examined separately in the bivariate analyses, most risk factors increased the odds of all the anxiety disorders and MDD, suggesting that they might be common risk factors for these disorders. Consistent with this view, the results of the MIMIC model indicated that most of the effects of the risk factors were exerted through the latent variable representing the shared liability for all the disorders. In fact, in some cases, such as childhood sexual abuse, the effect was exclusively through

the latent variable, in line with prior findings on the effect of child maltreatment on the structure of psychiatric disorders.[50] For example, through its effect on the latent factor, a history of childhood sexual abuse increased by 0.24 standard deviations the risk of having SAD, GAD, or specific phobia, by 0.22 standard deviations the risk of having panic disorder, 0.18 standard deviations the risk of PSTD, and 0.17 standard deviations the risk of MDD. There is a need to better understand the psychological and biological mechanisms underlying the generalized effects of these risk factors.[51–54]

At the same time, as could be expected from the different magnitudes of the association between the risk factors and the different disorders observed in the bivariate analyses, not all the effects of the risk factors occurred through the latent variable. Nineteen of the possible 66 disorder-specific effects were significant, and for each disorder, there was at least one significant direct effect. Our results indicate that, in addition to the shared etiology that pulls them together, all anxiety disorders and MDD have specific effects of risk factors that contribute to their individuality. For example, family history of MDD had a substantial specific effect on MDD in addition to its effect on the latent variable, indicating that this risk factor may contribute to the risk of MDD beyond the risk it confers to anxiety disorders. Similarly, we found that low self-esteem, which has been previously documented among individuals with SAD[55] but also associated with a broad range of mental disorders,[56] has a stronger association with SAD than with other anxiety disorders or MDD. The anxiety about one's performance and fear of negative evaluation by others may lead individuals to internalize some of those perceptions leading to low self-esteem. Alternatively, low self-esteem might make individuals more reliant on the opinions of others, which may lead to anxiety about their evaluation.[57]

Traumatic experiences had a large specific effect on PTSD above and beyond their effect on the latent factor, whereas being White constituted a specific protective factor (i.e., after adjusting for the effect of race on the latent factor), probably as a result of lower exposure to trauma of White individuals.[58] A surprising finding was that history of SUD before age 21 decreased the risk of PTSD. It is possible that substance use may mask or decrease the intensity of some anxiety symptoms. Alternatively, early-onset SUD may indicate a greater propensity for externalizing disorders than for some internalizing disorders. Despite these isolated findings, overall, the specific effects that were significant in our analyses are consistent with specific risk factors identified in previous studies,[56–60] and are informative about how risk factors may shape individual disorders by involving mechanisms that may be less salient for other disorders.

Our findings have etiological, treatment, and preventive implications. From the etiological point of view, our findings suggest that risk factors may exert their effects, at least in part, through broad dimensions of psychopathology, consistent with the views of the Research Domain Criteria (RDoC) project,[61, 62] and that those effects may differ across disorders. Future research should seek to uncover the genetic, cellular, and circuit-level underpinnings of those psychopathological dimensions and their overlapping and distinct contribution to anxiety disorders and MDD. Furthermore, the large effects of risk factors on the latent variable underlying anxiety disorders and MDD suggest that their shared liability[63] may contribute to explain the high comorbidity among them.[13, 14, 64] From the interventions

perspective, the large impact of the risk factors on the latent structure of anxiety disorders and MDD suggests that preventive interventions on a single risk factor with large effect on the latent structure could simultaneously decrease the risk for all the disorders. At the same time, since several risk factors affect the latent structure jointly, interventions that address several risk factors simultaneously are likely to be the most effective. The presence of disorder-specific effects suggests that supplementary modules may be necessary to provide intervention flexibility, promote personalized medicine, and optimize the outcome of all individuals.

Several limitations should be considered in the interpretation of these results. First, because of the cross-sectional nature of the study, although associations identified in this study could be informative regarding the etiology of anxiety disorders and MDD, causality cannot be inferred. However, because our results remain almost unchanged when we restricted the analyses to individuals 21 and older, reverse causality is unlikely to explain our results. Second, although our model is comprehensive, it is not exhaustive. In order to be parsimonious, in accord with established recommendations for model[65] development, we limited the number of variables based on a priori conceptual model.[26, 28] Future investigations could examine the common and specific effects of other potential risk factors. Third, our sample was composed of individuals 18 and older. The model may not be applicable to younger individuals or individuals of other cohorts. Fourth, some variables, such as childhood sexual abuse, were assessed retrospectively and may be subject to recall bias, whereas others, such as low self-esteem, were assessed with a single item. This may have increased error variance and underestimated the strength of association of the risk factors with the outcomes. Therefore, our estimates are likely to be conservative. Fifth, some variables of potential interest, such as family history of anxiety disorders, were not assessed in the NESARC and could not be included in the model.

In conclusion, risk for anxiety disorders and MDD appears to be mediated partially by a latent variable underlying these disorders, and partially by disorder-specific effects. The shared risk may contribute to the large rates of comorbidity among disorders, help to identify commonalities in the etiologies of these disorders, and provide clues for the development of unified treatment protocols or integrated preventive interventions.[66] The disorder-specific effects may contribute toward the distinct aspects of the etiology of each disorder and suggest the need for intervention flexibility. These findings may help inform dimensional models of classification of psychiatric disorders.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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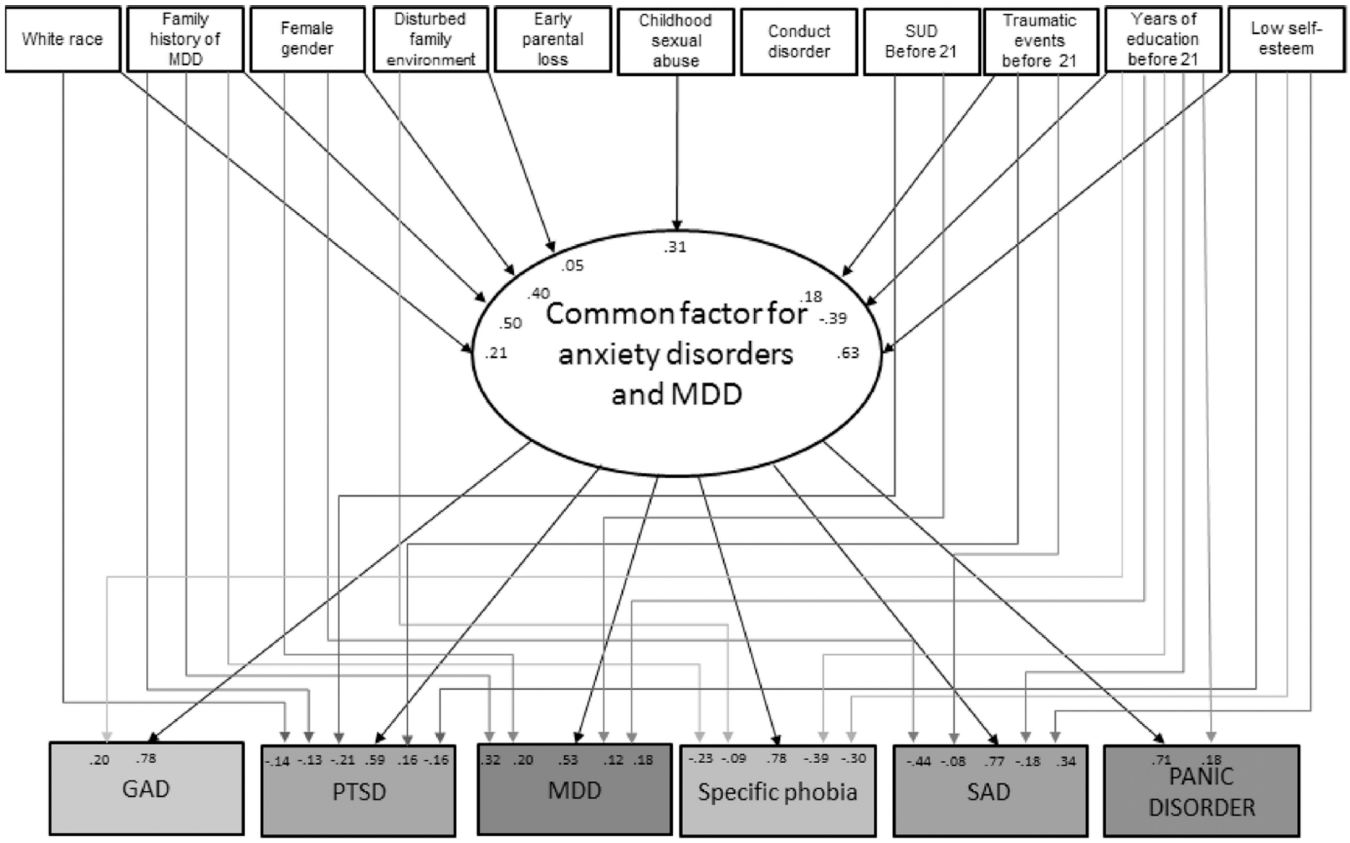

Figure 1.

Model including significant effects of the risk factors on the common factor and direct effects on the disorders.

TABLE 1

Lifetime anxiety disorders by risk factors. NESARC Wave 2 (n = 34,653)

	Panic		Social anxiety		Specific phobia		PTSD		GAD		MDD	
	OR	**95% CI**	**OR**	**95% CI**	**OR**	**95% CI**	**OR**	**95% CI**	**OR**	**95% CI**	**OR**	**95% CI**
White race	**1.4**	**(1.2−1.5)**	**1.4**	**(1.2−1.5)**	**1.1**	**(1.0−1.2)**	0.9	(0.8−1.1)	**1.4**	**(1.2−1.5)**	**1.4**	**(1.3−1.5)**
Family history MDD	**3.1**	**(2.8−3.4)**	**3.2**	**(2.9−3.5)**	**2.2**	**(2.0−2.4)**	**2.3**	**(2.0−2.5)**	**3.5**	**(3.1−3.9)**	**3.3**	**(3.0−3.5)**
Female	**2.1**	**(1.9−2.3)**	**1.4**	**(1.3−1.5)**	**2.1**	**(2.0−2.3)**	**2.2**	**(2.0−2.4)**	**2.1**	**(1.9−2.4)**	**2.1**	**(2.0−2.3)**
Disturbed family environment	**1.1**	**(1.1−1.1)**	**1.1**	**(1.1−1.1)**	**1.0**	**(1.0−1.0)**	**1.1**	**(1.1−1.1)**	**1.1**	**(1.1−1.1)**	**1.1**	**(1.1−1.1)**
Early parental loss	**0.9**	**(0.7−1.0)**	1.0	(0.9−1.2)	1.1	(1.0−1.2)	**1.2**	**(1.0−1.4)**	1.1	(0.9−1.3)	1.0	(0.9−1.1)
Childhood sexual abuse	**3.4**	**(3.0−3.8)**	**2.9**	**(2.6−3.3)**	**2.5**	**(2.2−2.7)**	**3.9**	**(3.5−4.4)**	**3.4**	**(3.0−3.9)**	**2.6**	**(2.3−2.8)**
Conduct disorder	1.3	(0.9−2.0)	**1.6**	**(1.1−2.4)**	**1.5**	**(1.1−2.0)**	1.3	(0.9−2.1)	1.3	(0.8−2.0)	**1.5**	**(1.1−2.1)**
SUD before 21	1.1	(1.0−1.3)	**0.5**	**(0.4−0.6)**	**0.6**	**(0.5−0.6)**	**0.7**	**(0.6−0.8)**	1.0	(0.8−1.1)	**1.2**	**(1.1−1.3)**
Number of traumas before 21	**1.2**	**(1.2−1.2)**	1.0	(1.0−1.1)	1.0	(1.0−1.0)	**1.3**	**(1.3−1.3)**	**1.2**	**(1.2−1.2)**	**1.1**	**(1.1−1.2)**
Years of education before 21	**0.9**	**(0.9−0.9)**	**0.8**	**(0.8−0.8)**	**0.8**	**(0.8−0.8)**	**0.9**	**(0.9−0.9)**	**0.9**	**(0.9−0.9)**	**0.9**	**(0.9−1.0)**
Low self-esteem	**3.6**	**(3.2−4.1)**	**6.3**	**(5.6−7.0)**	**2.9**	**(2.6−3.2)**	**2.7**	**(2.4−3.1)**	**4.2**	**(3.7−4.7)**	**2.4**	**(2.2−2.6)**

PTSD, posttraumatic stress disorder; GAD, generalized anxiety disorder; MDD, major depressive disorder. Significance at $P < .05$. Significant odds ratios (ORs) are bolded.

TABLE 2

Direct, indirect and total effects of risk factors on the anxiety disorders

	Panic disorder			SAD			Specific phobia			PTSD			GAD			MDD		
	Indirect	**Direct**	**Total**	**Indirect**	**Direct**	**Total**	**Indirect**	**Direct**	**Total**	**Indirect**	**Direct**	**Total**	**Indirect**	**Direct**	**Total**	**Indirect**	**Direct**	**Total**
White race	0.15		0.15	0.16		0.16	0.16		0.16	0.12	−0.14	−0.02	0.16		0.16	0.11		0.11
Family history MDD	0.35		0.35	0.39		0.39	0.39	−0.23	0.16	0.30	−0.13	0.16	0.39		0.39	0.27	0.32	0.59
Female	0.28		0.28	0.31	−0.44	−0.14	0.31		0.31	0.24		0.24	0.31		0.31	0.21	0.20	0.42
Disturbed family environment	0.04		0.04	0.04		0.04	0.04	−0.09	−0.05	0.03		0.03	0.04		0.04	0.03		0.03
Early parental loss																		
Childhood sexual abuse	0.22		0.22	0.24		0.24	0.24		0.24	0.18		0.18	0.24		0.24	0.17		0.17
Conduct disorder[a]																		
SUD before 21											−0.21	−0.21					0.12	0.12
Number of traumas before 21	0.13		0.13	0.14	−0.08	0.06	0.14		0.14	0.11	0.16	0.27	0.14		0.14	0.10		0.10
Years of education before 21	−0.28	0.18	−0.10	−0.30	−0.18	−0.48	−0.31	−0.39	−0.69	−0.23		−0.23	−0.30	0.20	−0.11	−0.21	0.18	−0.03
Low self-esteem	0.44		0.44	0.48	0.34	0.82	0.49	−0.30	0.19	0.37	−0.16	0.21	0.49		0.49	0.33		0.33

SAD, social anxiety disorder; PTSD, posttraumatic stress disorder; GAD, generalized anxiety disorder. Only significant values ($P < .05$) are shown. Indirect effects represent the effect of the predictor on the disorder occurring through the factor. It is obtained by multiplying the loading of the disorder on the factor by the effect of the covariate on the factor. Direct effects represent the effect of the predictor on the disorder above and beyond the effect of the covariate on the factor. Total effects are the sum of the direct and the indirect effects.

[a]Conduct disorder did not have any significant direct or indirect effect on any anxiety disorder. For that reason, all cells are left empty.