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Contextual factors and anxiety in minority and European American youth presenting for treatment across two urban university clinics

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Abstract

The current study compared ethnic minority and European American clinically-referred anxious youth ($N = 686$; 2–19 years) on internalizing symptoms (i.e., primary anxiety and comorbid depression) and neighborhood context. Data were provided from multiple informants including youth, parents, and teachers. Internalizing symptoms were measured by the Multidimensional Anxiety Scale for Children, Child Depression Inventory, Child Behavior Checklist and Teacher Report Form. Diagnoses were based on the Anxiety Disorders Interview Schedule for Children. Neighborhood context was measured using Census tract data (i.e., owner-occupied housing, education level, poverty level, and median home value). Ethnic minority and European American youth showed differential patterns of diagnosis and severity of anxiety disorders. Ethnic minority youth lived in more disadvantaged neighborhoods. Ethnicity and neighborhood context appear to have an additive influence on internalizing symptoms in clinically-referred anxious youth. Implications for evidence-based treatments are discussed.

Keywords

anxiety disorders; youth; ethnic minorities; neighborhood context

1. Introduction

Anxiety disorders are among the most common mental health disturbances in youth. Up to 20% of youth in the general population presenting to primary care clinics report clinically distressing levels of anxiety (Chavira, Stein, Bailey, & Stein, 2004), while lifetime prevalence of anxiety disorders is estimated to reach up to approximately 30% (Kessler et al., 2005b). Anxiety disorders in youth do not abate with the passage of time and are

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associated with adulthood sequelae such as anxiety disorders, depression, and substance abuse in adulthood (Kendall, Safford, Flannery-Schroeder, & Webb, 2004).

A robust literature has identified cognitive-behavioral therapy (CBT) as an empirically-supported treatment (EST) for youth anxiety (Silverman, Pina, & Viswesvaran, 2008). However, deployment of CBT to the community has been slow partially due to concerns that efficacy trials of ESTs may not reflect the population presenting in community settings (Southam-Gerow, Weisz, & Kendall, 2003). Research has found that anxious youth from research and community clinics present similarly with regard to their symptoms and internalizing diagnoses (Ehrenreich-May et al., 2010; Southam-Gerow et al., 2003). However, youth in the community are more likely to be ethnic minorities and have lower family incomes (Ehrenreich-May et al., 2010; Southam-Gerow et al., 2003). These findings suggest that understanding how both ethnic minority status and contextual factors such as socioeconomic status (SES) and neighborhood characteristics are related to anxiety may have important implications for treatment adaptation of ESTs across cultural or socioeconomic groups (Huey & Polo, 2008) as well as for dissemination and implementation efforts.

1.1. Do ethnic minorities demonstrate disparate rates of internalizing disorders?

Comparative studies of internalizing symptoms (i.e., anxious and depressive symptoms) in ethnic minorities have shown mixed findings, perhaps due to measurement issues and the confounding of race, ethnicity, SES, and culture (Betancourt & Lopez, 1993). Research has largely focused on comparing African American and Latino/Hispanic samples to European American samples. When examining differences between European American and African-American samples, what little research has been conducted has produced equivocal results. In epidemiological studies in adults, African Americans had lower 12-month and lifetime prevalence of psychiatric disorders and were less likely to have an internalizing disorder (Breslau et al., 2006; Kessler et al., 2005a). However, they were more likely to have a diagnosis of Post-Traumatic Stress Disorder (PTSD) and experienced more impairment due to their anxiety disorder when compared to European Americans (Himle, Baser, Taylor, Campbell, & Jackson, 2009). In low-income urban African American community youth, rates of anxious somatic distress were higher than would be expected when compared to normative samples (Reynolds, O'Koon, Papademetriou, Szczygiel, & Grant, 2001). When comparing clinically referred anxious European American and African American youth, the groups were more alike than disparate in their anxiety symptoms and diagnoses (Ferrell, Beidel, & Turner, 2004). However, when comparing community samples of African American and European American youth, significant elevations on the Children's Depression Inventory (CDI) (Kovacs, 2001) were observed in African American youth (Steele et al., 2006). One reason for discrepancies in results may be due to sample type (i.e., clinic-referred versus community samples) and the confounding effect of ethnicity and SES. Only one study (Himle et al., 2009) controlled for SES in their analyses.

More empirical work has been conducted comparing Hispanic/Latino and European American samples but results remain equivocal. One epidemiological study found that Hispanic/Latino adults endorsed a higher prevalence of mood and anxiety disorders when compared to European Americans (Hernandez, Plant, Sachs-Ericsson, & Joiner, 2005), whereas other studies suggest that Hispanic/Latino adults demonstrated lower prevalence of mood and anxiety disorders (Breslau et al., 2006; Kessler et al., 2005a). In clinic samples of anxious youth, similar patterns of anxiety profiles between Hispanic/Latino and European American were identified (Pina & Silverman, 2004), as well as equivalent treatment response to CBT (Pina, Silverman, Fuentes, Kurtines, & Weems, 2003). However, like African-American youth, Hispanic/Latino youth presented with more somatic symptoms of anxiety when compared to European American youth (Pina & Silverman, 2004; Varela et

al., 2004). With regard to depressive symptoms in Hispanic/Latino and European American community youth, significant elevations on the CDI (Kovacs, 2001) were observed in Hispanic/Latino youth when compared to European American youth (Twenge & Nolen-Hoeksema, 2002). Once again, only a few of these studies controlled for SES in their analyses (Hernandez et al., 2005; Varela et al., 2004; Twenge & Nolen-Hoeksema, 2002). In sum, minority youth tended to report higher rates of anxiety and depression symptoms when compared to European American youth.

A remaining challenge is to unpack the relationship between ethnicity and socioeconomic factors on internalizing symptoms in anxious youth. For example, somatic symptoms of anxiety are associated with both lower SES (Bernstein et al., 1997) and ethnic minority status (Pina & Silverman, 2004). Many ethnic minority youth live in disadvantaged neighborhoods with higher poverty rates than European American youth (Census, 2001). Furthermore, low-income ethnic minority youth are more likely than low-income European American youth to reside in more impoverished areas (Sampson, 2009). One possible explanation for the mixed results presented in section 1.1 is that researchers are not adequately capturing the impact of ethnicity and SES on anxiety, or the interaction between the two. This is particularly important given that many of the studies did not control for SES. Thus, it is important to consider what is driving differential symptom presentation: ethnic minority status, the context of living in poverty, or a combination of the two (Canino, 2004).

1.2 What is the relationship between SES/neighborhood context and youth internalizing disorders?

The context of living within poverty may lead to the experience of stress and psychological distress in youth. Generally, to capture these effects, the construct of SES has been used. SES is difficult to define and measure (Braveman et al., 2005; Oakes & Rossi, 2003) but is hypothesized to be made up of the following domains: (1) material capital, such as assets and material endowments, (2) human capital, such as education, skills, and knowledge (Braveman et al., 2005), and (3) social capital, such as social group membership (Oakes & Rossi, 2003). In this paper, we are operationally defining SES as the neighborhood context that the youth lives within (Ross & Mirowsky, 2008) which can be measured using Census tract data. Census data (Krieger, 2002; Ross & Mirowsky, 2008) is a rigorous measure of neighborhood context and have been used with increased frequency due to minimized missing data (Krieger, 2002), and because census tracts are “as homogeneous as possible with respect to population characteristics, economic status, and living conditions” (Census, 2005, p. 10–11). Single measures such as income and education should not be used to measure SES (Braveman et al., 2005) and thus we have deliberately not included individual-level SES variables in this study.

To date, research focused on SES and neighborhood context has identified a relationship with internalizing disorders in youth (Grant, 2004; McLeod & Shanahan, 1993). However, the mechanisms between living in poverty and the development of internalizing disorders are poorly understood. Possible explanations for this relationship include negative life events (Lewis, Byrd, & Ollendick, 2011), increased exposure to community violence (Gaylord-Harden, Cunningham, & Zelencik, 2011), parenting practices (Klebanov, Brooks-Gunn, & Duncan, 1994; Luis, Varela, & Moore, 2008), increased parental anxiety (Burstein, Ginsburg, Petras, & Jalongo, 2010; Chapman, Petrie, Vines, & Durrett, 2011), and lack of access to services (Newacheck, Hung, Park, Brindis, & Irwin, 2003). Therefore, despite being understudied, initial work points to the psychological and physiological impact of living in a disadvantaged context (Hill, Ross, & Angel, 2005).

1.3 The current study

Limitations of previous studies include the use of single informants, the use of rating scales rather than structured clinical interviews, an under-emphasis on youth, and small sample sizes that are underpowered to identify differences between groups. To date, researchers have focused on individual self-reported variables such as income and education level when measuring SES despite recommendations not to do so, thus ignoring the specific impact of neighborhood context. Most of this research has been with community samples, and more work with clinical samples is needed to understand how to best treat youth seeking mental health services in the community.

The current study compares clinically anxious ethnic minority and European American youth on internalizing symptoms and neighborhood context. We predicted that compared to European American youth, ethnic minority youth would live in more disadvantaged neighborhoods, report higher levels of anxiety (specifically somatic symptoms) and comorbid depressive symptoms, and show a differential pattern of anxiety diagnoses. Furthermore, we predicted that the youth in disadvantaged neighborhoods would report higher levels of anxiety and comorbid depressive symptoms when compared to youth in non-distressed contexts regardless of ethnicity.

2. Methods

2.1 Participants

Participants came from the Philadelphia and Chicago metropolitan areas. The Philadelphia clinic (Child and Adolescent Anxiety Disorders Clinic; CAADC) provided 2 samples: The first sample came from a randomized clinical trial (RCT) conducted in the CAADC (Kendall, Hudson, Gosch, Flannery-Schroeder, & Suveg, 2008) and the second sample came from the CAADC outpatient clinic. The Chicago clinic provided 1 sample from the Pediatric Stress and Anxiety Disorders Clinic (PSADC), an outpatient clinic. Given the need for sufficient power to detect differences, we combined the 3 samples for a total sample of 686 anxious youth (European American, $n = 481$, and ethnic minority, $n = 194$). Our rationale in combining the samples comes from previous work comparing clinical research samples in varying geographical locations in the United States suggesting that clinical research samples are homogenous in makeup (Southam-Gerow, Silverman, & Kendall, 2006).

2.1.2 CAADC—The CAADC is a university-based clinic, housed in a department of psychology, and offers CBT to anxious youth. Data from the CAADC include participants seeking services between 2000 and 2011. Youth are parent-referred, primarily via a school professional, mental health agency, or pediatrician.

The RCT sample (Kendall et al., 2008) ($N = 161$) had 44% girls with a mean age of 9.80 years ($SD = 1.84$, range = 7–14). Ethnicity/race composition was: 83.9% European American, 8.7% African American, 3.1% Latino, and 3.1% from other ethnic/racial groups. The outpatient clinic sample ($N = 217$) had 44% girls with a mean age of 10.81 years ($SD = 2.87$, range = 6–17), who were referred for treatment at the CAADC but were not included in an RCT. Services were self-pay based on a sliding-fee scale. Ethnicity/race composition was: 81.1% European American, 6.9% African American, 3.7% Latino, 2.8% Asian, and 1.4% from other ethnic/racial groups. Ethnicity/race data were missing for 1.2% of the RCT sample and 4.1% of the outpatient clinic sample.

2.1.3 PSADC—The PSADC is a university based clinic, housed in a department of psychiatry, that offers services to anxious youth using primarily CBT and family based approaches. Data from this study include participants seeking services for between 2002 and

2011. Youth in this sample are parent-referred, primarily via a school professional, mental health agency or pediatrician, and services are covered by public or private insurance, or self-pay. The PSADC sample ($N = 308$) had 49.7% girls with a mean age of 10.04 ($SD = 3.87$, range = 2–19). Ethnicity/race composition was: 55.2% European American, 15.3% African American, 17.9% Latino, 3.9% Asian, and 7.8% from other ethnic/racial groups.

2.2 Procedure

2.2.1 CAADC—For both samples, all procedures were approved by the institutional review board and were conducted at Temple University's CAADC. After a brief telephone screen with parents to obtain information on youths' symptomatology, eligible families were invited to a pretreatment assessment, and signed consents and assents were obtained from all participants. Parents and youth completed paper-and-pencil measures and were interviewed separately using The Anxiety Disorders Interview Schedule for Children (ADIS) (Silverman & Albano, 2006) to determine current diagnoses of the youth. Doctoral students in clinical psychology, trained to reliability ($\kappa > .80$), conducted the diagnostic interviews and assessments (see Brown, Di Nardo, Lehman, & Campbell, 2001 for a detailed description of criteria for ADIS research administration).

2.2.2 PSADC—All procedures were approved by the institutional review board and were conducted at the University of Illinois at Chicago in the PSADC. After a brief telephone screen with parents to obtain information on youths' symptomatology, families were brought in for a pretreatment assessment. Youth and parents completed paper-and-pencil measures and received a two-part diagnostic evaluation consisting of: (a) a general mental health evaluation interview administered during the first visit to obtain information about the presenting problem as well as developmental, family, and treatment history; and (b) a semi-structured interview administering relevant diagnostic modules from the Anxiety Disorders Interview Schedule for Children (ADIS) (Silverman & Albano, 2006) during the second visit a week later. Modules from the ADIS were selected based on the information provided during the first part of the evaluation and following discussion with the clinical team and supervisors¹. Parents were asked to consent to the use of their de-identified data to be included as part of an ongoing risk and protective factors study. Participants in the PSADC were not enrolled in any RCTs or assigned to specific research conditions.

2.3 Measures

2.3.1. Ethnic Minority Status—Ethnic minority status was determined by parent report at intake. Parents were asked to endorse what ethnicity/race their child identified with: European American, African-American, Latino/Hispanic, Asian-American, or Other.² For the purposes of this study, youth were categorized as “ethnic minority” (i.e., African-American, Latino/Hispanic, Asian-American, or Other; $n = 194$) or “European American” ($n = 481$).³ Although it would be ideal to investigate ethnic minority sub-groups, limited variation in participant ethnicity made this not feasible. This method is consistent with other studies (e.g., Ehrenreich-May et al., 2010).

2.3.2 Neighborhood Context: Census tract data—Five variables were used to measure neighborhood context using 2000 Census tract data gathered from the Census Bureau American Fact Finder Census 2000 datasets (Census, 2001; Thomas, Nelesen,

¹Note that ADIS administration in the PSADC sample did not follow the Brown et al (2001) research criteria. Trainees observed supervisors administer the ADIS and then were observed while they administered the ADIS. Diagnoses were determined through case discussion in team meeting based on information gleaned from the ADIS.

²Note in the RCT sample of the CAADC, the Asian-American category was not included and would be captured under the “Other” category.

³Ethnicity was missing for 11 participants.

Ziegler, Natarajan, & Dimsdale, 2009). Material capital was measured by the census tract median home value. Human capital was measured by the percentage of individuals in the subject's census tract with a high school degree or higher and a bachelor's degree or higher. Social capital was measured using the percentage of individuals in the subject's census tract who were below the poverty level and the percentage of owner-occupied housing units.

2.3.3 Anxiety Disorders Interview Schedule for Children- Parent and Child Versions for DSM-IV (ADIS) (Silverman & Albano, 2006)—This semi-structured diagnostic interview is administered to parents and children. Although targeting anxiety disorders, the ADIS also assesses mood disorders and externalizing disorders, and screens for pervasive developmental disorders, providing information on possible comorbid conditions. The ADIS has demonstrated favorable psychometric properties, including excellent retest reliability (Silverman, Saavedra, & Pina, 2001), convergent validity (March, Parker, Sullivan, Stallings, & Conners, 1997), and good inter-rater reliability (Rapee, Barrett, Dadds, & Evans, 1994).

2.3.4 Child report

2.3.4.1 Multidimensional Anxiety Scale for Children (MASC) (March et al., 1997; March, 1979): Child report of anxiety was measured using the MASC (March et al., 1997; March, 1979). The MASC consists of 39 questions designed to measure anxiety on the following four factors: Physical Symptoms, Harm Avoidance, Social Anxiety, and Separation/Panic. Questions on the MASC are answered on a 4-point scale (0 = never true about me, 3 = often true about me). Higher scores indicate higher anxiety. A MASC total score is also calculated. The MASC has acceptable psychometric properties (March et al., 1997; March, 1979), identifies youth meeting diagnostic criteria (Villabo et al, in press), and good internal consistency (March et al., 1997). In the CAADC sample, Cronbach's alpha was .90.⁴

2.3.4.2 Child Depression Inventory (CDI) (Kovacs, 2001): The CDI is a 27-item self-rated child questionnaire that measures symptoms of depression in youth ages 7–17. We used the total depression scale for this study, reliability and validity data of the total score are acceptable (Craighead, Smucker, Craighead, & Ilardi, 1998; Hodges, 1990; Timbremont, Braet, & Dreesen, 2004), including internal consistency above .80 (Ollendick & Yule, 1990). In the CAADC sample, Cronbach's alpha was .87.⁵

2.3.5 Parent report—The Child Behavior Checklist (CBCL) (Achenbach & Edelbrock, 1983; Achenbach & Rescorla, 2001) assesses behavioral problems and social and academic competence in children and adolescents. In addition to internalizing and externalizing subscales, the CBCL is made up of eight subscales (anxious/depressed, somatic complaints, withdrawn/depressed, social problems, thought problems, attention problems, delinquent behaviors, and aggressive behaviors). Validity and reliability for the CBCL is well established in the extant literature including excellent internal consistency (Ang et al., 2011; Ebesutani et al., 2010; Kendall et al., 2007).⁶

2.3.6 Teacher report—The Teacher Report Form (TRF) (Achenbach & Rescorla, 2001) is a version of the CBCL designed for completion by teachers. Similar to the CBCL, there are internalizing and externalizing subscales with the same additional eight subscales listed

⁴We did not have access to individual items in the PSADC sample so were unable to calculate Cronbach's alpha.

⁵We did not have access to individual items in the PSADC sample so were unable to calculate Cronbach's alpha.

⁶CBCL & TRF data are only available for the RCT (CAADC) and PSADC samples. We did not have access to individual items in all 3 samples, so we could not calculate Cronbach's alpha.

above. The reliability and validity of the TRF is also well established in the literature including excellent internal consistency (Sattler, 2002; Youngstrom, Joseph, & Greene, 2008).⁶

2.4 Analytic Plan

The following analyses compared ethnic minority and European American youth on internalizing symptoms and neighborhood context. Univariate analysis of variance (ANOVA), independent samples t-tests, and chi-square tests were used. Comparisons between the samples were explored across two domains: (a) client symptoms as reported by youth (CDI, MASC), parent (CBCL), and teacher (TRF) and (b) neighborhood context as measured by Census tract data. Patterns in anxiety diagnoses were also explored.

To examine the relationship between ethnicity and neighborhood context on internalizing symptoms, we created a composite variable. Participants were classified in groups: (1) minority living in disadvantaged neighborhood (M-DN), (2) European American living in disadvantaged neighborhood (EA-DN), (3) minority living in non-disadvantaged neighborhood (M-NDN), and (4) European American living in non-disadvantaged neighborhood (EA-NDN). We operationalized “disadvantaged neighborhood” as being below the average on three or more Census variables (owner occupied housing, high school degree, bachelor's degree, below poverty level, and median home value).

Given multiple comparisons, we adjusted alpha with a modified Bonferroni correction (Holm, 1979) to minimize Type 1 errors (Jaccard & Guiliano-Ramos, 2002) as conducted in previous studies (see Ehrenreich-May et al., 2010; Southam-Gerow et al., 2006). Accordingly, different significance levels applied for groups of analyses; however the same per-family error rate was used across comparisons ($p < .05$). The Holm procedure is a step-down strategy that entails ranking p values of conducted analyses from least to most extreme values. The most extreme p value is compared to $.05/k$, where k is the number of comparisons conducted in that group of analyses. If that result is significant, then the next most extreme p value is compared to $.05/k-1$. This process continues until a non-significant result is found; after that all analyses are considered non-significant. The significance levels used are reported in each subgroup of analyses.

3. Results

3.1 Preliminary analyses: Differences across samples

Prior to combining the three samples, we conducted analyses to ensure that they were roughly equivalent. See Table 1 for demographics across samples.

3.1.1 Ethnic Minority Status—There were significant differences in ethnic minority status observed across the samples, $\chi^2(2, N = 675) = 71.38, p < .001$. Follow-up comparisons identified that there were significantly more minority participants in the PSADC sample as compared to the CAADC RCT [$\chi^2(1, N = 467) = 40.86, p < .001$] and CAADC outpatient samples [$\chi^2(1, N = 516) = 48.65, p < .001$]. Approximately 45% of the PSADC sample identified as ethnic minorities, whereas only 15% of the CAADC samples identified as ethnic minorities. Given that the samples were situated in different geographic areas, we compared the two locations using the Consolidated Metropolitan Statistical Area (CMSA) data from the 2000 Census. Chicago CMSA data (Chicago-Gary-Kenosha) reported 33.2% ethnic minorities while Philadelphia CMSA data (Philadelphia-Wilmington-Atlantic City) reported 27.5%, suggesting that the PSADC sample had more minorities than average while the Philadelphia sample had fewer minorities than average. This discrepancy across the 2 clinics may be partially explained by geographical differences and the research emphasis of

the CAADC given that minorities have historically been underrepresented in research samples.

3.1.2 Contextual variables—Given that four analyses were conducted, Holm-corrected critical significance levels were: $p < .013, .017, .025, .05$. See Table 2 for descriptives. An omnibus effect was detected with regard to differences among the three samples in median home value, $F(2, 619) = 23.04, p < .001$. Follow-up post-hoc comparisons identified that the PSADC sample ($M = 194,419.53$) had significantly higher median home value when compared to the CAADC outpatient ($M = 141,754.82; p < .001$) and RCT samples ($M = 138,791.41; p < .001$). When we compared the two locations using the CMSA data from the 2000 Census, Chicago CMSA data (Chicago-Naperville-Michigan City) reported higher median home value ($M = 264,400$) while Philadelphia CMSA data (Philadelphia-Camden-Vineland) reported lower median home value ($M = 227,500$), suggesting differences were due to geographical location.

An omnibus effect was detected with regard to differences among the samples in percentage of owner-occupied housing, $F(2, 621) = 13.27, p < .001$. Follow-up post-hoc comparisons identified that the PSADC sample ($M = 66.86$) had significantly fewer percentage owner-occupied housing when compared to the CAADC outpatient ($M = 75.79, p < .001$) and CAADC RCT samples ($M = 75.88, p < .001$). When we compared the two locations using the CMSA data from the 2000 Census, Chicago CMSA data (Chicago-Gary-Kenosha) reported that 65.20% of the population lived in owner-occupied housing while Philadelphia CMSA data (Philadelphia-Wilmington-Atlantic City) reported 74.20% of the population lived in owner-occupied housing, suggesting differences were due to geographical location. No significant differences were detected across samples with regard to percentage high school degree [$F(2, 620) = 2.67, p > .05$], percentage bachelor's degree [$F(2, 619) = 1.70, p > .05$], and percentage below poverty level [$F(2, 620) = 3.30, p < .05$]. Given the relative homogeneity between the samples on contextual variables, we combined the 3 samples into one group.

3.2 Aim 1: Comparing ethnic minority and European American youth

3.2.1 Contextual variables—Given that 5 analyses were conducted, Holm-adjusted critical significance levels were: $p < .01, .013, .017, .025, .05$.⁷ See Table 3 for means and standard deviations comparing ethnic minority and European American participants.

Owner-occupied housing. A significant difference among the two groups was identified with regard to percentage owner-occupied housing, $t(613) = -10.02, p < .01$. Minority participants lived in neighborhoods with fewer percent owner-occupied housing units ($M = 58.86$) when compared to European American participants ($M = 77.01$).

Education status. A significant difference among the two groups was identified with regard to percentage with a bachelor's degree [$t(612) = -7.68, p < .013$], as well as percentage with a high school diploma [$t(612) = -12.25, p < .001$]. The minority participants lived in neighborhoods with a lower percentage of inhabitants with a bachelor's degree ($M = 22.85$) when compared to European American participants ($M = 36.59$). Additionally, the minority participants lived in neighborhoods with a lower percentage of inhabitants with a high school degree ($M = 72.53$) when compared to European American participants ($M = 86.57$).

Poverty level. A significant difference among the two groups was identified with regard to percentage living below the poverty level, $t(612) = 13.10, p < .017$. The minority

⁷All results are presented in order of Holm-adjusted critical significance levels.

participants lived in neighborhoods with a higher percentage of inhabitants living below the poverty level ($M = 13.60$) when compared to European American participants ($M = 4.58$).

Median home value. A significant difference among the two groups was identified with regard to median home value, $t(613) = -4.68, p < .025$. The minority participants lived in neighborhoods with a lower median home value ($M = 137,351.38$) when compared to European American participants ($M = 179,157.64$).

3.2.2 Child report—Given that 6 analyses were conducted, Holm-adjusted critical significance levels were: $p < .008, .010, .013, .017, .025, .05$.

CDI. A significant difference between the two groups was identified with regard to total CDI score, $t(542) = 3.23, p < .008$. Minority participants had higher CDI scores ($M = 12.10$) when compared to European American participants ($M = 9.68$).

MASC social anxiety scale. A significant difference between the two groups was identified with the MASC social anxiety scale, $t(551) = 2.92, p < .010$. The minority participants had higher MASC social anxiety scores ($M = 13.54$) when compared to European American participants ($M = 11.51$).

MASC physical scale. A significant difference between the two groups was identified with regard to the MASC physical scale, $t(551) = 2.73, p < .013$. The minority participants had higher MASC physical scale scores ($M = 13.65$) when compared to European American participants ($M = 11.61$).

MASC total. A significant difference between the two groups was identified with regard to MASC total score, $t(551) = 2.46, p = .017$. The minority participants had higher MASC total scores ($M = 53.92$) when compared to European American participants ($M = 49.20$).

No significant differences were detected across the two groups on the MASC harm avoidance and separation anxiety scales.

3.2.3 Parent report—Given that 8 analyses were conducted, Holm-adjusted critical significance levels were: $p < .006, .007, .008, .010, .013, .017, .025, .05$. Only the CBCL withdrawn/depressed scale [$t(361) = 2.79, p < .006$] was significantly different between the two groups such that minority participants ($M = 65.19$) were rated by their parents as more withdrawn/depressed than European American participants ($M = 61.85$). No significant differences were detected per the Holm procedure when comparing the groups on the CBCL anxious/depressed, somatic complaints, social problems, thought problems, attention problems, delinquent behavior, and aggressive behavior scales.

3.2.4 Teacher report—Given that 8 analyses were conducted, Holm-adjusted critical significance levels were: $p < .006, .007, .008, .010, .013, .017, .025, .05$. No significant differences were detected per the Holm procedure when comparing the two groups on any of the TRF scales: anxious/depressed, withdrawn/depressed, somatic complaints, social problems, thought problems, attention problems, delinquent behavior, and aggressive behavior.

3.2.5 Diagnoses—Given that seven chi-square analyses were conducted, Holm-adjusted critical significance levels were: $p < .007, .008, .010, .013, .017, .025, .05$. See Table 4 for percentages of diagnoses. We investigated differential rates of diagnoses in all anxiety disorders⁸ across ethnic minority and European American participants. PTSD [$\chi^2(1, N = 194) = 25.13, p < .001$] and Anxiety Disorder – Not Otherwise Specified [AD-NOS; $\chi^2(1, N$

= 194) = 15.76, $p < .001$] were diagnosed more frequently in minority versus European American participants, whereas Generalized Anxiety Disorder (GAD) was diagnosed more frequently in European American versus minority participants [$\chi^2(1, N = 194) = 10.41, p = .001$]. Diagnosis patterns did not significantly differ between minority and European American participants on Separation Anxiety Disorder, Social Phobia, and Obsessive Compulsive Disorder.

3.3 Aim 2: Unpacking the effects of minority status and neighborhood context

The results described below detail comparisons between participants categorized as: minority-disadvantaged neighborhood, minority-non-disadvantaged neighborhood, European American-disadvantaged neighborhood, European American-non-disadvantaged neighborhood.

3.3.1 Child report—Given that 6 analyses were conducted, Holm-adjusted critical significance levels were: $p < .008, .010, .013, .017, .025, .05$. See Table 5 for comparisons between ethnicity and neighborhood context and reports of internalizing symptoms. Dunnett T3 tests were used for post-hoc comparisons.

MASC social anxiety. An omnibus effect was detected with regard to differences among the four groups on MASC social anxiety score, $F(3, 494) = 5.51, p < .008$. Follow-up post-hoc comparisons identified that the M-DN participants ($M = 14.59$) had significantly higher MASC social anxiety scores when compared to the M-NDN participants ($M = 11.38$) and EA-NDN participants ($M = 11.21, p < .05$).

MASC total score. An omnibus effect was detected with regard to differences among the four groups on MASC total score, $F(3, 494) = 4.62, p < .010$. Follow-up post-hoc comparisons identified that M-DN participants ($M = 56.13$) had significantly higher MASC total scores when compared to the EA-NDN participants ($M = 47.86, p = .01$).

MASC physical score. An omnibus effect was detected with regard to differences among the four groups on MASC physical score, $F(3, 494) = 3.86, p < .013$. Follow-up post-hoc comparisons identified that the M-DN participants ($M = 14.40$) had significantly higher MASC physical scores when compared to the EA-NDN participants ($M = 11.29, p < .05$).

No significant differences among the four groups were identified with regard to MASC harm avoidance and separation anxiety scales.

CDI. An omnibus effect was detected with regard to differences among the four groups on CDI, $F(3, 494) = 3.46, p < .017$. Follow-up post-hoc comparisons identified that the M-DN participants had significantly higher CDI scores ($M = 12.47$) when compared to the EA-NDN participants ($M = 9.89$) and the EA-DN participants ($M = 9.46, p < .05$).

3.3.2 Parent report—Given that eight analyses were conducted, Holm-adjusted critical significance levels were: $p < .006, .007, .008, .010, .013, .017, .025, .05$. Dunnett T3 tests were used for post-hoc comparisons. No significant differences were detected per the Holm procedure when comparing the groups on the CBCL anxious/depressed, withdrawn/depressed, somatic complaints, social problems, thought problems, attention problems, delinquent behavior, and aggressive behavior scales.

⁸We did not complete this analysis for panic disorder because of the very low base rate across all samples.

3.3.3 Teacher report—Given that eight analyses were conducted, Holm-adjusted critical significance levels were: $p < .006, .007, .008, .010, .013, .017, .025, .05$. Dunnett T3 tests were used for post-hoc comparisons.

TRF somatic complaints scale. An omnibus effect was detected with regard to differences among the four groups on TRF somatic complaints, $F(3, 223) = 5.18, p < .006$. Follow-up post-hoc comparisons identified that the EA-DN participants had significantly higher somatic complaint scores ($M = 63.42$) when compared to the M-NDN participants ($M = 53.82$) and the EA-NDN participants ($M = 57.69, p < .05$).

No significant differences were detected per the Holm procedure when comparing the four groups on the remaining TRF scales: anxious/depressed, social problems, thought problems, attention problems, delinquent behavior, and aggressive behavior.

4. Discussion

When comparing ethnic minority and European American treatment-seeking anxious youth, a number of significant findings emerged. First, ethnic minority youth live in significantly more disadvantaged contexts than European American youth as measured by Census tract data. Second, ethnic minority youth report more severe internalizing symptoms when compared to their European American counterparts. Interestingly, parents and teachers do not corroborate this report. Differential patterns of diagnosis between the two groups were found. When breaking the sample into four groups (minority-disadvantaged neighborhood, minority-non-disadvantaged neighborhood, European American-disadvantaged neighborhood, European American-non-disadvantaged neighborhood) in an effort to understand the unique contribution of ethnicity and neighborhood context, a number of important findings emerged. M-DN youth reported being more anxious than EA-NDN youth. M-DN youth also reported more depressive symptoms when compared to EA-NDN and EA-DN youth. Again, parents and teachers largely did not corroborate youths' report.

4.1 Comparing ethnic minority and European American youth

One of the more robust findings is that ethnic minority anxious youth are more likely to live in disadvantaged neighborhoods when compared to European American anxious youth. Specifically, ethnic minority youth are more likely to live in neighborhoods with a lower percentage of owner-occupied housing, lower percentage of educated occupants, higher percentage of occupants living below the poverty level, and lower median home value. This finding is not surprising, given that ethnic minority youth tend to live in neighborhoods with three times the poverty rate of European American youth (Census, 2001). In other words, the context in which ethnic minority youth reside is more stressful. Disadvantaged neighborhoods are associated with increased exposure to community violence (Gaylord-Harden et al., 2011), lack of access to services (Newacheck et al., 2003), and increased presence of internalizing disorders, such as anxiety and depression (Grant, 2004).

Patterns of diagnosis differed across principal anxiety disorder. Ethnic minority youth were more likely to be diagnosed with a principal anxiety disorder of PTSD and AD-NOS, whereas European American youth were more likely to be diagnosed with GAD. This corroborates other research suggesting that European American youth are more likely to be diagnosed with GAD (Kendall et al., 2010). Past research has reported a higher prevalence of PTSD in ethnic minorities, particularly African American adults (Himle et al., 2009), and a lower prevalence of GAD in ethnic minorities (Breslau et al., 2006). The higher prevalence rate of PTSD in ethnic minority youth may be due to exposure to community violence (Gaylord-Harden et al., 2011) given that minority youth are more likely to live in neighborhoods where they are exposed to high levels of community violence (Margolin &

Gordis, 2000; Kataoka et al., 2009) which could explain the higher rates of PTSD in the minority sample. Developmental factors may also be in effect. In adult epidemiological samples, foreign-born Latinos reported ages of onset for GAD that were, on average, 5 and 10 years later than those reported by U.S.-born Latinos and U.S.-born whites, and across ethnic groups GAD had the latest age of onset when compared to other anxiety disorders (Suarez, Polo, Chen, & Alegria, 2009).

The finding that ethnic minority youth were more likely to be diagnosed with AD-NOS is the first of its kind in the literature, to our knowledge. One possible explanation for this curious finding may be that potential cultural factors may influence variable presentation of anxiety disorders in ethnic minority youth. For example, anxiety symptoms may not present in the same way in ethnic minority youth as they do in European American youth. Cross-cultural research on social anxiety in adults has shown that there are culture-specific presentations of social anxiety disorder such as *taijin kyofusho* in Japanese and Korean cultures and *aymat zibur* in ultra-Orthodox Jewish communities. Cultural factors such as individualism/collectivism, social norms, self-construal, and gender role may contribute to culture-specific presentations of anxiety disorders (Hofmann, Asnaani, & Hinton, 2010). Diagnosticians may have captured culture-specific presentation of anxiety disorders through the diagnosis of AD-NOS; a category that captures non-typical presentations of anxiety disorders. Another explanation for higher rates of AD-NOS in minority youth may be that these youth are more likely to be exposed to environmental stressors because of living in disadvantaged contexts. Diagnosticians may be more likely to diagnose anxiety that is directly in response to environmental stressors as AD-NOS. However, it is critical for more research on these preliminary findings, given that variability in ADIS administration in the two clinics may also have artificially contributed to varying rates of diagnosis.

Was ethnicity related to higher rates of internalizing symptoms as rated by youth, parents, or teachers? Similar to previous results comparing clinical samples of ethnic minority youth to European American youth, the two groups were similar by parent and teacher report (Ferrell et al., 2004; Pina & Silverman, 2004) with only one exception. Parents of ethnic minority youth rated their children as more withdrawn/depressed as compared to European American youth. However, when considering child report, a different picture emerges. Ethnic minority youth endorsed more overall symptoms of anxiety, symptoms of social anxiety, somatic anxiety symptoms, and depressive symptoms when compared to European American youth. Elevated somatic symptoms (Reynolds et al., 2001; Pina & Silverman, 2004; Varela et al., 2004) and depressive symptoms (Steele et al., 2006; Twenge & Nolen-Hoeksema, 2002) have been reported by ethnic minority youth in previous studies. One potential explanation for disparate reporting may be informant discrepancy, as the literature has documented that children and their parents tend to differ on report of internalizing symptoms (Comer & Kendall, 2004; Grills & Ollendick, 2003).

4.2 Unpacking the role of minority status and neighborhood context

The present findings suggest that ethnic minority and European American youth presenting for anxiety treatment differ on some self-reported dimensions. However, these results do not inform us about what is driving increased endorsement of anxious and depressive symptoms in ethnic minority youth. Is it their minority status (e.g., discrimination), disadvantaged contexts (e.g., community violence, lack of resources), or an additive effect of the two? Theory suggests that ethnic minority youth in disadvantaged contexts may be at risk for 'double jeopardy,' given multiple risk factors (Breslau et al., 2006).

When considering youth report of anxiety symptoms, ethnic minority youth who *also* live in disadvantaged neighborhoods endorse the most severe symptoms on overall anxiety, social anxiety, and somatic anxiety when compared to European American youth who live in non-

disadvantaged neighborhoods. When considering depressive symptoms, ethnic minority youth who live in disadvantaged neighborhoods reported higher severity and more impairment when compared to European American youth living in both non-disadvantaged neighborhoods and disadvantaged neighborhoods. The discrepancies in adult (i.e., parent, teacher) and youth report were also present in this group of comparisons and are concerning. There were no differences in the four groups by parent or teacher report, with only one exception. While unmeasured contextual or cultural characteristics may account for some of these findings, more information is needed to understand reasons for informant discrepancies among child problems. For example, teachers have been less likely to identify anxiety symptoms in youth, particularly among younger children (Frick, Silverhorn, & Evans, 1994). Children also exhibit a differential pattern of behavior across contexts which has been shown to coincide with informant report patterns (De Los Reyes, Henry, Tolan, & Wakschlag, 2009). Further, the reliability of cross informant reports of childhood problems among different ethnic groups has not been studied.

The present findings support an additive contribution of ethnicity and context: In other words, a layering effect (Vanable, Carey, Blair, & Littlewood, 2006), or 'double jeopardy' (Breslau et al., 2006) may contribute to youth internalizing symptomology more so than ethnic minority status by itself. The notion that ethnicity alone is not a risk factor for internalizing disorders is corroborated by a literature that documents lower rates of internalizing disorders in foreign-born Latino and non-Latino immigrants when compared to their US-born counterparts (e.g., Alegria et al., 2008; Suarez et al., 2009), and findings that the predictive value of ethnicity is partially mediated by contextual factors (Hernandez et al., 2005). Future studies should measure contextual and cultural characteristics among various SES and racial/ethnic groups to identify unique and additive effects on childhood problems.

4.3 Limitations

Despite strengths (e.g., large sample, measurement of neighborhood context), there are potential study limitations. First, this study focused on treatment seeking youth which limits generalizability (Canino, 2004). However, the present approach permits recommendations for clinically-referred youth. Second, although our sample size was large, it required combining 3 samples of anxious youth with varying procedures. However, research suggests that clinical research sites are generally more similar than different (Southam-Gerow et al., 2006), and our analyses corroborated this finding. Third, although the use of Census tract data is a strength, this type of approach can only capture broad contextual factors; we did not measure specific contextual factors such as exposure to community violence (Gaylord-Harden et al., 2011), acculturation stress (Polo & Lopez, 2009), language proficiency (Polo & Lopez, 2009), coping styles (Simpson, 2011), or perceived neighborhood safety (Alegria et al., 2007). Additionally, we did not measure cultural characteristics that may explain differences between groups, such as values and practices, or stressors associated with discrimination. This limitation, although common in studies making comparisons across racial/ethnic group, needs to be addressed (Betancourt & Lopez, 1993). Another limitation is that we only had parent and teacher report data in two out of the three samples.

4.4 Implications and Future Research

Future studies should (a) investigate the role of neighborhood context when examining ethnicity as a correlate of mental health, and (b) consider how ESTs can be tailored to suit youth living in disadvantaged neighborhoods.

We consider the context that youth live within as an important factor when considering modifiable correlates of change. In other words, we have observed a discrepancy in severity of symptoms in youth by their ethnicity and neighborhood contexts. A target for attention

within those two factors is neighborhood context. For example, youth in disadvantaged neighborhoods should be routinely screened for symptoms of anxiety and depression, especially given that these symptoms may be missed in the presence of externalizing disorders. Prevention programs (Cooley-Strickland, Griffin, Darney, Otte, & Ko, 2011) could be implemented in schools serving youth from disadvantaged neighborhoods in order to assist with managing contextual stressors that impact on emotional health.

Evidence-based treatments have been tailored for internalizing disorders specific to cultural groups (e.g., Hinton, Hofmann, Rivera, Otto, & Pollack, 2011). Culturally adapted treatments are tailored to specific practices and values within cultural groups, which increase treatment acceptability and applicability. Nevertheless, further tailoring is necessary to address the impact of neighborhood context on youth wellbeing. For example, attending to safety (i.e., violence or crime), meeting basic needs (i.e., food, shelter), and access to community (i.e., advocacy, opportunities for recreation and social connectedness) are important considerations.

Context is paramount: Youth in disadvantaged neighborhoods exposed to violence may develop realistic, adaptive fears and worries, which may keep them safe (Lambert et al., 2005). When do these fears become maladaptive and how should they be addressed in clinical settings? Although a recent meta-analysis confirms that ESTs can be efficacious in addressing the needs of youth across ethnic/racial groups without significant modification (Huey & Polo, 2008), to date, little work has been done to investigate how neighborhood context impacts the efficacy of ESTs implemented in real-world settings. Existing elements of evidence-based treatments may be adapted to ensure attention to contextual problems (e.g., safety, meeting basic needs, and access to community services and resources). For example, for youth living in neighborhoods riddled with community violence, using cognitive restructuring to challenge fears about the likelihood of being a victim of violence would be contraindicated. In these circumstances, applying youth and family problem-solving skills around finding safe places to go would be more appropriate. These examples uphold the importance of adapting ESTs within the principle of “flexibility within fidelity” (Kendall & Beidas, 2007).

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HIGHLIGHTS

- 686 anxious youth were assessed for symptoms of anxiety and depression and neighborhood context.
- Informants included children, parent and teachers.
- Ethnic minority youth were more likely to live in disadvantaged neighborhoods and report more severe symptoms of anxiety and depression.
- Ethnic minority status and neighborhood context demonstrated an additive relationship on symptoms of anxiety and depression.

Table 1

Demographic Descriptives

Demographic Descriptives (%)	PSADC	CAADC RCT	CAADC outpatient
Caregiver marital status			
Married	51.0	75.8	69.6
Not married	19.8	18.6	21.2
Childs living arrangement			
Both parents in home*	45.8	76.4	70.5
Mother only	16.6	11.2	15.2
Father only	.6	1.2	.9
Other**	.3	6.2	.5
Mother education			
Graduate school (17 yrs+)	19.2	15.5	27.6
College (16 yrs)	22.4	29.8	28.6
Partial college (13–15 yrs)	16.6	22.4	15.7
High school (12 yrs)	10.7	25.5	15.7
Less than high school (<12 yrs)	2.3	1.2	1.8
Father education			
Graduate school (17 yrs+)	22.7	21.1	16.1
College (16 yrs)	18.5	20.5	34.1
Partial college (13–15 yrs)	8.4	17.4	16.6
High school (12 yrs)	12.3	27.3	20.7
Less than high school (<12 yrs)	1.9	3.7	1.4

Note. Not all participants provided data with regard to these variables so percentages do not add up to 100%.

* Includes biological or adoptive parents.

** Foster home, guardian, grandparent, ward of the state, PSADC = Pediatric Stress and Anxiety Disorders Clinic, CAADC = Child and Adolescent Anxiety Disorders Clinic, RCT = randomized controlled trial

Table 2

Descriptive statistics for Census tract data across samples

	N	Mean (SD)	95% CI	Range
Owner occupied housing				
PSADC	298	66.86 (24.69)	64.05–69.68	9.80–98.70
CAADC outpatient	197	75.79 (18.08)	73.25–78.33	.50–99.00
CAADC RCT	129	75.88 (19.29)	72.53–79.25	.00–98.70
High school degree				
PSADC	298	81.04 (16.37)	79.18–82.91	29.10–99.80
CAADC outpatient	197	83.68 (12.32)	81.95–85.41	7.90–98.60
CAADC RCT	129	83.74 (12.12)	81.62–85.86	39.80–97.90
Bachelor's degree				
PSADC	298	34.11 (23.07)	31.48–36.74	1.30–89.40
CAADC outpatient	197	31.38 (19.07)	28.70–34.05	.00–80.20
CAADC RCT	129	30.54 (19.40)	27.14–33.92	1.90–77.40
Below poverty level				
PSADC	298	8.10 (9.48)	7.02–9.18	.00–53.60
CAADC outpatient	197	6.05 (7.14)	5.04–7.05	.00–38.70
CAADC RCT	129	7.07 (9.17)	5.47–8.68	.00–47.10
Median home value				
PSADC	298	194,419.53 (114,461.02)	181,348.59–207,490.47	.00–972,000.00
CAADC outpatient	197	141,754.82 (82,568.00)	130,153.25–153,356.39	.00–656,900.00
CAADC RCT	129	138,791.41 (81,092.69)	124,607.92–152,974.89	7,900.00–475,000.00

Note. PSADC = Pediatric Stress and Anxiety Disorders Clinic, CAADC = Child and Adolescent Anxiety Disorders Clinic, RCT = randomized controlled trial

Table 3

Ethnic minority versus European American youth

	EM M (SD)	N	EA M (SD)	N	T	Sig.
Census tract						
% Owner occupied housing	58.9 (22.8)	182	77.0 (19.5)	433	-10.0	.000*
% HS degree	72.5 (16.6)	182	86.6 (11.1)	433	-12.3	.000*
% Bachelor's	22.9 (20.4)	182	36.6 (20.2)	433	-7.7	.000*
% below poverty level	13.6 (11.4)	182	4.6 (5.6)	433	13.1	.000*
Median home value	137,351.38 (106,865.4)	181	179,157.6 (98,190.8)	432	-4.7	.000*
Child report						
CDI	12.1 (7.1)	135	9.7 (7.7)	409	3.2	.001*
MASC social anxiety	13.5 (6.9)	137	11.5 (7.1)	416	2.9	.004*
MASC physical	13.6 (7.6)	137	11.6 (7.6)	416	2.7	.007*
MASC total	53.9 (19.7)	137	49.2 (19.4)	416	2.5	.014*
MASC harm avoidance	16.5 (5.2)	137	15.9 (5.2)	416	1.2	.240
MASC separation anxiety	10.6 (5.9)	137	10.3 (5.7)	416	.53	.595
Parent report (CBCL)						
Withdrawn/depressed	65.2 (10.5)	101	61.9 (9.8)	262	2.8	.005*
Anxious/depressed	66.3 (10.5)	101	64.3 (9.8)	262	1.7	.088
Somatic complaints	63.3 (10.1)	101	64.0 (9.7)	262	-.60	.548
Social problems	60.7 (9.0)	101	60.3 (8.7)	262	.32	.753
Thought problems	61.9 (8.7)	101	62.1 (8.7)	262	-.24	.813
Attention problems	61.5 (10.3)	101	61.7 (10.4)	262	-.13	.894
Delinquent behavior	56.3 (7.2)	101	55.0 (6.2)	262	1.8	.081
Aggressive behavior	59.0 (8.7)	101	57.7 (8.5)	262	1.3	.178
Teacher report (TRF)						

	EM M (SD)	N	EA M (SD)	N	T	Sig.
Anxious/depressed	60.3 (9.8)	67	60.9 (10.1)	196	-.40	.686
Withdrawn/depressed	59.9 (9.4)	67	57.5 (10.1)	196	1.7	.086
Somatic complaints	56.7 (9.7)	67	59.2 (9.9)	196	-1.8	.076
Social problems	57.6 (7.9)	67	57.3 (7.1)	196	.22	.824
Thought problems	56.8 (9.1)	67	58.4 (9.1)	196	-1.22	.222
Attention problems	57.3 (8.6)	67	56.8 (7.5)	196	.48	.629
Delinquent behavior	55.1 (6.1)	66	53.1 (5.1)	195	2.6	.010
Aggressive behavior	56.2 (8.3)	67	55.4 (7.5)	196	.71	.476

Note. EM = ethnic minority, EA = European American, HS = high school, CDI = Children's Depression Inventory, MASCS = Multidimensional Anxiety Scale for Children, CBCL = Child Behavior Checklist, TRF = Teacher Report Form, presented in order of significance per Holm's procedure.

* significant per Holm's procedure

Table 4

Diagnoses by ethnicity

Diagnosis (%)	Minority	European American
Primary Diagnosis		
School Refusal	.5	1.5
Separation Anxiety Disorder	9.8	13.5
Social Phobia	16.0	20.8
Panic Disorder (PD)	1.0	.4
PD with Agoraphobia	.5	.2
GAD	21.6	34.3
OCD	3.6	7.9
PTSD	6.7	.4
MDD	.5	1.5
ADHD – Inattentive	0.0	.6
ADHD – Hyperactive	4.1	2.5
ADHD – Combined	1.0	1.2
ODD	0.0	.4
Selective Mutism	12.4	5.2
Schizophrenia	.5	0.0
Tourette's/Tics/Trich	1.5	1.0
Anxiety Disorder–NOS	8.2	1.9
PDD-NOS	2.1	.2
Adjustment Disorder	3.6	1.2
RAD	.5	.2
Disorders of Infancy	.5	0.0
Specific Phobia	4.1	3.7
Schizoid personality disorder	.5	0.0
LD-NOS	.5	0.0
MDD-NOS	0.0	.4
Aspergers	0.0	.4
ADHD-NOS	0.0	.2

Note. GAD = Generalized Anxiety Disorder, OCD = Obsessive Compulsive Disorder, PTSD = Post Traumatic Stress Disorder, MDD = Major Depressive Disorder, ADHD = Attention Deficit Hyperactivity Disorder, NOS = Not otherwise specified, PDD = Pervasive Developmental Disorder, RAD = Reactive Attachment Disorder, LD = Learning Disability

Table 5

Unpacking the effects of minority status and neighborhood context

	M-DN M (SD)	N	M-NDN M (SD)	N	EA-DN M (SD)	N	EA-NDN M (SD)	N
Child report								
MASC social anxiety*	14.6 (7.1)	93	11.4 (5.6)	37	12.2 (7.3)	125	11.2 (6.8)	243
MASC total*	56.1 (20.8)	93	51.0 (16.7)	37	52.0 (19.7)	125	47.9 (17.9)	243
MASC physical*	14.4 (8.1)	93	12.1 (6.6)	37	12.3 (7.8)	125	11.3 (7.3)	243
CDI*	12.5 (6.8)	95	11.0 (8.1)	34	9.5 (7.0)	118	9.9 (7.9)	244
MASC harm avoidance	16.9 (5.3)	93	16.6 (4.6)	37	16.6 (4.7)	125	15.7 (5.1)	243
MASC sep anxiety	10.8(6.1)	93	10.9 (5.4)	37	11.1 (6.1)	125	9.8 (5.3)	243
Parent report (CBCL)								
Withdrawn/depressed	64.2 (11.3)	69	66.4 (10.5)	26	63.0 (10.5)	60	61.4 (9.6)	171
Anxious/depressed	66.5 (10.6)	69	65.9 (10.2)	26	66.1 (10.1)	60	64.6 (9.8)	171
Somatic complaints	64.7 (10.6)	69	61.5 (8.7)	26	65.9 (10.1)	60	63.5 (9.5)	171
Social problems	61.4 (9.4)	69	59.2 (7.1)	26	61.5 (8.6)	60	60.3 (8.7)	171
Thought problems	62.3 (8.7)	69	60.3 (8.5)	26	63.4 (8.9)	60	62.1 (8.7)	171
Attention problems	62.0 (10.6)	69	60.9 (10.1)	26	65.8 (11.0)	60	60.5 (9.9)	171
Delinquent behavior	57.3 (7.7)	69	54.6(5.6)	26	55.6 (6.4)	60	55.3 (6.4)	171
Aggressive behavior	59.7 (9.0)	69	57.4 (7.7)	26	58.9 (8.7)	60	57.7 (8.6)	171
Teacher report (TRF)								
Somatic complaints*	58.0 (9.7)	43	53.8 (9.1)	17	63.4 (11.3)	43	57.7 (9.4)	124
Anxious/depressed	60.6 (10.1)	43	58.9 (8.2)	17	62.1 (9.4)	43	60.8 (9.8)	124
Withdrawn/depressed	58.4 (8.8)	43	61.7 (9.5)	17	58.2 (8.8)	43	57.4 (10.5)	124
Social problems	57.9 (7.4)	43	55.7 (5.5)	17	58.8 (7.3)	43	57.0 (7.0)	124
Thought problems	57.9 (10.2)	43	53.6 (5.3)	17	58.8 (9.6)	43	58.5 (9.0)	124
Attention problems	59.1 (9.5)	43	54.6 (5.5)	17	58.2 (7.6)	43	56.3 (7.2)	124
Delinquent behavior	56.0 (6.7)	43	53.1 (3.3)	17	54.0 (6.3)	43	52.8 (4.6)	124
Aggressive behavior	57.2 (8.8)	43	53.4 (4.6)	17	56.6 (10.1)	43	55.5 (6.9)	124

Note. M-DN = minority and disadvantaged neighborhood (defined as below the mean on 3 or more Census variables), M-NDN = minority and non-disadvantaged neighborhood, EA-DN = European American and disadvantaged neighborhood, EA-NDN = European American and non-disadvantaged neighborhood, CDI = Children's Depression Inventory, MASC = Multidimensional Anxiety Scale for Children, CBCL = Child Behavior Checklist, TRF = Teacher Report Form, presented in order of significance per Holm's procedure.

* significant per Holm's procedure