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Clinical Phenomenology, Somatic Symptoms, and Distress in Hispanic/Latino and European American Youths With Anxiety Disorders

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This study compared clinic-anxious Hispanic/Latino and European American youths (ages 6 to 17 years old) along sociodemographic and clinical variables. Groups were relatively similar, although significant differences emerged as a function of ethnocultural and language choice (English, Spanish) used during the assessment. Within the English language choice group, Cuban American (CA) youths reported somatic symptoms as less distressing than non-Cuban American Hispanic/Latino (non-CA/HL) youths. Conversely, within the Spanish language choice group, CA youths reported somatic symptoms as more distressing than non-CA/HL youths. Also, parents in the European American and CA groups reported their youths as having less somatic symptoms than parents in the non-CA/HL group. Implications of findings are discussed, particularly regarding possible cultural significance of somatic symptoms.

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In contrast to the burgeoning research on the clinical phenomenology of anxiety disorders among European American youths, considerably less research has been conducted using samples of Hispanic/Latino youths. Conducting research with Hispanic/Latino samples is important as Hispanics/Latinos represent the fastest growing and largest minority group in the United States (about 38.8 million; U.S. Department of Commerce, 2002), and anxiety disorders among Hispanic/Latino youths are of relatively high prevalence (about 2.6% to 4.7%; Bird, 1996).

Most of the anxiety-related research conducted on Hispanic/Latino youths has been community-based studies focusing on children's fears, worries, or both as well as on the relation between anxiety and acculturative stress, stigmatization, prejudice, and discrimination (Glover, Pumarriega, Holzer, Wise, & Rodriguez, 1999; Hovey & Magaña, 2002; Icard, Longres, & Spencer, 1999; Owen, 1998; Silverman, La Greca, & Wasserstein, 1995). In terms of clinic-based studies, Ginsburg and Silverman (1996) compared Hispanic/Latino and European American children and adolescents referred to a child anxiety disorders specialty clinic along sociodemographic (e.g., age, gender) and clinical variables. Results overall revealed remarkable similarities between the groups in terms of diagnostic rates of anxiety disorders as well as self-rated levels of depression and anxiety. In this article, we present the findings of a similar comparison using an independent sample of youths referred to the same specialty clinic as in Ginsburg and Silverman.

More importantly, in this study we extended Ginsburg and Silverman (1996) by broadening the range of variables assessed to include variables cited as having specific cultural significance to Hispanics/Latinos, namely, (a) anxiety-related somatic/physiological symptoms (e.g., sweaty, stomachaches; assessed in this study by both youths' ratings and parents' ratings about the youth) and (b) the degree to which anxiety-related somatic/physiological symptoms are viewed as distressing or aversive (assessed in this study by youths' ratings). This latter variable is akin to the construct of anxiety sensitivity (Reiss, 1997), which has been empirically demonstrated in both youths (e.g., Silverman, Fleisig, Rabian, & Peterson, 1991) and adults (Peterson & Heilbronner, 1987) as distinct from trait anxiety. Thus, in accordance with suggestions in the clinical literature (Kirmayer & Young, 1998; Koss, 1990; Lopez & Guarnaccia, 2000), a Hispanic/Latino youth who is experiencing distress and worry may express his or her distress and worry by emphasizing somatic/physiological symptoms (e.g., "My heart is beating fast," "My hands feel sweaty," "often, I feel sick in my stomach") as well as distress about experiencing these symptoms (e.g., "I am scared I may be really sick because my stomach hurts").

Although the literature contains many references to somatic/physiological symptoms having specific cultural significance to Hispanics/Latinos in clinic and

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nonclinic samples (see Kirmayer, Young, & Hayton, 1985; Koss, 1990), there is scarce research that has examined the issue empirically. No study in the child area has examined whether Hispanic/Latino youths who present to clinics with psychological difficulties (anxiety or otherwise) express their difficulties by showing elevations in their reporting of somatic/physiological symptoms. There are, however, two studies in the adult area. Findings showed that Hispanic/Latino clinic-depressive adult patients (Colombians: Escobar, Gomez, & Tuason, 1983; Peruvians: Mezzich & Raab, 1980) reported more somatic/physiological symptoms (e.g., headaches, dizziness) than their European American counterparts.

In terms of Hispanics/Latinos viewing the occurrence of somatic/physiological symptoms as distressing, empirical research is even more scarce. In the adult literature, there is one study (Novy, Stanley, Averill, & Daza, 2001) that included a comparison of Hispanics/Latinos' and European Americans' ratings about the distressfulness of anxiety-related somatic/physiological symptoms. Hispanics/Latinos in this community sample scored higher on anxiety sensitivity than European Americans; no statistical test was reported in this study (Novy et al., 2001).

In the child literature, only one study (Weems, Hayward, Killen, & Taylor, 2002) compared Hispanic/Latino and European American adolescents' ratings about the distressfulness of somatic/physiological symptoms. Overall, Hispanic/Latino adolescents scored significantly higher than European American adolescents on anxiety sensitivity, indicating that Hispanics/Latinos viewed the presence of somatic symptoms as more distressing and aversive events.

In sum, there is a paucity of research that has empirically shown that Hispanic/Latino youths are more likely than European American youths to present their psychological difficulties with elevations in their reports of somatic/physiological symptoms *and* to report these symptoms as distressing. Because anxiety and its disorders manifest themselves not only by affective and cognitive symptoms, but also by somatic/physiological symptoms and aversive reactions to these symptoms (i.e., anxiety sensitivity; American Psychiatric Association, 1994), one main purpose of this study was to increment the research literature by comparing Hispanic/Latino and European American youths who presented to a child anxiety specialty clinic along these variables. Finding empirical support for the high endorsement of somatic symptoms and distress about somatic symptoms among Hispanics/Latinos would serve to bolster the suggestions that have been made in the clinical literature regarding this point. This would also serve to put clinicians on firmer ground for assessing somatic symptoms and distress when working with Hispanic/Latino youths, particularly youths who present with anxiety problems.

In comparing Hispanic/Latino and European American youths, we divided the Hispanic/Latino sample into two subsamples: (a) Cuban Americans (CAs) and (b) non-Cuban American Hispanics/Latinos (non-CA/HLs; e.g., Nicaraguans, Venezuelans, Hondurans). Because past research findings obtained in adult community studies suggest variations among Hispanic/Latino groups in their reporting of somatic/physiological variables (Canino, Rubio-Stipec, Canino, & Escobar, 1992; Escobar, Rubio-Stipec, Canino, & Karno, 1989), we anticipated variations as a function of ethnocultural group. Because no study has examined these issues with CAs, we were uncertain about the nature of these variations. Our decision to divide the Hispanic/Latino sample into CAs and non-CA/HLs was also a pragmatic one: We had a large enough subsample of CAs to form a separate group, because our research program is located in Miami-Dade County, wherein about 52% of the Cuban population in the United States reside (U.S. Department of Commerce, 2001). There were insufficient samples sizes to further subdivide the Hispanic/Latino group (e.g., Nicaraguans, Venezuelans, Hondurans).

We also conducted comparisons in which CA and non-CA/HL subsamples were divided by parents' language choice (Spanish or English) during the assessment of the child. This was done because it has been suggested that Hispanics/Latinos who are experiencing elevated levels of distress tend to choose Spanish instead of English to report their elevated distress (see Reichman, 1997). We therefore anticipated potential variations as a function of language choice but believed it premature to formulate specific hypotheses about the precise nature of the variations given the absence of past empirical research.

Method

Participants

Participants were 152 youths and their parents (67.8% mothers) who presented to the Child and Family Psychosocial Research Center, Child Anxiety and Phobia Program at Florida International University, Miami. School counselors, mental health professionals, and pediatricians referred participants to the program. The sample contained 81 girls and 71 boys, with ages ranging from 5 to 17 years old ($M = 9.7$ years, $SD = 2.92$). Sixty percent ($n = 91$) of the sample was Hispanic/Latino (self-reported) and 40% ($n = 61$) was European American (self-reported). Within the Hispanic/Latino sample, 37% ($n = 34$) of the participating parents chose the assessment (about their child) in Spanish; 63% ($n = 57$) chose the assessment in English. Forty-one percent ($n = 62$) of the total sample was CA (63% reported both parents being from Cuba).

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Nineteen percent (n = 29) of the sample was non-CA/HL, reporting other Caribbean, Central American, and South American countries. These 29 families represented 11 different Hispanic/Latin countries as the family's country of origin (e.g., Nicaragua, 3.9%; Colombia, 3.3%; Venezuela, 2.6%; and Honduras, 2.0%).

All youths met *DSM–IV* criteria for a primary diagnosis of an anxiety disorder using the Anxiety Disorders Interview Schedule for Children (ADIS–IV: C/P; Silverman & Albano, 1996). Exclusionary criteria for participation were developmental delays (e.g., mental retardation, autism) or severe psychopathology (e.g., schizophrenia). Screening for these criteria was accomplished through a standardized telephone screen used within the Center. Additional screening sections are contained on the interview schedules. Table 1 shows sociodemographic (age, gender, income) and clinical characteristics (primary diagnoses, mean scores on youth-completed measures) separately for the European American and Hispanic/Latino youths.

Diagnostic Interview Schedule

ADIS–IV: C/P (Silverman & Albano, 1996). The ADIS–IV: C/P is a semistructured diagnostic interview that emphasizes anxiety disorders and other major childhood disorders according to *DSM–IV* criteria. Test–retest reliability of diagnoses using ADIS–IV: C/P was evaluated in approximately 40% of this sample using a retest interval of 7 to 14 days. Results indicated that the diagnoses derived using the ADIS–IV: C/P were highly reliable (Silverman, Saavedra, & Pina, 2001). Kappa coefficients for separation anxiety disorder, social phobia, specific phobia, and generalized anxiety disorder were all in the excellent range ($\kappa = .80$ to .92). Retest reliability for diagnoses derived using the Spanish versions of the ADIS–IV: C/P was examined in 32% ($n = 11$) of the Spanish language sample in this study. Kappa coefficients for separation anxiety disorder, social phobia, specific phobia, and generalized anxiety disorder were all in the good to excellent range ($\kappa = .64$ to .96).

To determine diagnoses, clinicians conducted separate interviews with the child and the parent using the child and parent versions, respectively, of the ADIS–IV: C/P. The clinician assigned diagnoses that both sources agreed were most interfering. In cases of discordance between child and parent, the clinician adjusted the severity ratings in consideration of both sources' views about interference and disturbance, thereby making a final or composite diagnoses as a function of both sources' reports. In cases of multiple diagnoses, the relative impact or interference of each specific disorder was determined. This was done by questioning both the child and the parent, by obtaining severity ratings from each, and by prioritizing each diagnosis from most interfering to least interfering (see Albano & Silverman, 1996). The diagnosis or disorder that was deemed to be most interfering or disturbing was rendered the primary diagnosis.

Measures

Children's Depression Inventory (CDI; Kovacs, 1992). The CDI is a 27-item self-rating scale that assesses cognitive, behavioral, and neurovegetative aspects of depression in children and adolescents using a three-choice format. Summing all items derives a total score. Internal consistencies of the CDI have been reported as ranging from 0.83 to 0.89; test–retest reliabilities have been reported as ranging from 0.74 to 0.77 (Smucker, Craighead, Craighead, & Green, 1986). The CDI has been found to discriminate between psychiatric and nonclinic samples; the CDI also has been found to correlate with clinicians' independent global depression ratings (e.g., $r = 0.55$; Kovacs, 1992). In this sample, internal consistency (alpha coefficient) was 0.86.

Fear Survey Schedule for Children–Revised (FSSC–R; Ollendick, 1983). The FSSC–R is an 80-item self-rating scale that assesses the frequency, intensity and content of fears in children and adolescents. Items are summed yielding a Total Fear score. Each item is rated using a 3-point scale: 1 (*none*), 2 (*some*), or 3 (*a lot*). The FSSC–R has been shown to have acceptable test–retest reliability (rs ranging from 0.46 to 0.51) and internal consistency (e.g., coefficient alpha of 0.95; King & Ollendick, 1992; Ollendick, 1983). Significant correlations have been found between the FSSC–R and widely used anxiety self-report measures (rs ranging from 0.32 to 0.56; Ollendick, 1983). The alpha coefficient for internal consistency was 0.97 in this sample.

Revised Children's Manifest Anxiety Scale (RCMAS; Reynolds & Richmond, 1978). The RCMAS is a 37-item child self-rating scale designed to assess anxiety symptoms in children and adolescents. Twenty-eight items are summed yielding a Total Anxiety score; each item is rated either *Yes* or *No*. Pela and Reynolds (1982) reported a 3-week interval test–retest reliability of 0.98. Estimates of concurrent validity for the RCMAS have been found to range from (rs) 0.65 to 0.76 (Lee, Piercel, Friedlander, & Collamer, 1988). In this sample, the alpha coefficient for internal consistency was 0.83.

State–Trait Anxiety Inventory for Children–Trait Version (STAIC–T; Spielberger, Edwards, Montuori, & Lushene, 1973). The STAIC–T is a 20-item self-rating scale measure that provides information on the general frequency (*hardly ever, some-*

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times, often) that children and adolescents experience various anxiety states. The measure yields a total score derived by summing all items. Test–retest reliability using a 6-week interval has been found to range from 0.65 to 0.71 (see manual, Spielbeger et al., 1973). Concurrent validity of the STAIC–T has been found to range from 0.63 to 0.75 (see Spielberger et al., 1973). In this sample, the alpha coefficient for internal consistency was 0.87.

Somatic/Physiological Symptoms

RCMAS Physiological Scale (Reynolds & Richmond, 1978). Factor analytic studies have been generally consistent in reporting a three-factor structure (Worry/Oversensitivity, Social Concerns/Concentration, and Physiological) for the RCMAS Total Anxiety scale plus a lie scale (Reynolds & Paget, 1981; Reynolds & Richmond, 1979; Scholwinski & Reynolds, 1985). The RCMAS Physiological factor scale was used in this study to assess the presence or absence of somatic/physiological symptoms. Examples of items contained on this scale are "Often I feel sick in my stomach," "Often I have trouble getting my breath," and "I am tired a lot." An alpha coefficient for internal consistency of 0.63 was obtained with this sample.

Child Behavior Checklist (CBCL; Achenbach, 1991). The CBCL is a 118-item parent-completed measure about the child or adolescent used to assess internalizing and externalizing behavior problems. Each item is rated on a 3-point scale of 0 (*not true*), 2 (*somewhat or sometimes true*), or 3 (*very true or often true*). In this study, the CBCL Somatic subscale was used (*T* scores) to assess youths' levels of somatic/physiological symptoms from the parents' perspective. Examples of items are "headaches" and "stomachaches." Test–retest reliability for the Somatic subscale scores using a 1-week interval has been found to range from 0.92 to 0.97 (see manual, Achenbach, 1991). Alpha coefficients for internal consistency have been reported to range from 0.89 to 0.94 in Hispanic/Latino samples (Rubio-Stipec, Bird, Canino, & Gould, 1990).

Distress or Aversiveness of Somatic/Physiological Symptoms

Childhood Anxiety Sensitivity Index (CASI; Silverman et al., 1991). The CASI consists of 18 items that assess the extent to which children and adolescents view the experience of anxiety-related somatic/physiological symptoms as distressing or aversive. Each item is rated using a 3-point scale as 1 (*none*), 2 (*some*), or 3 (*a lot*). Silverman et al. (1991) reported an alpha coefficient of 0.87 and test–retest reliability estimates of 0.76 with a clinical sample. The CASI Total score was used in this study. Examples of items from the CASI include "It scares me when I feel like I am going to faint" and "It scares me when I have trouble getting my breath." Alpha coefficient for internal consistency in this sample was 0.88 for the total score.

In addition to using the CASI Total score, recent factor analytic studies show four facets of anxiety sensitivity contained on the scale: Disease Concerns, Unsteady Concerns, Mental Illness Concerns, and Social Concerns (Silverman, Goedhart, Barrett, & Turner, 2003). The CASI Disease Concerns factor scale was used in this study because the items contained on this scale specifically map onto youths' views about the degree to which anxiety-related symptoms represent serious disease and illness, which would be distressing. Examples of the items on this factor scale are "When my stomach hurts, I worry that I might be really sick" and "When I notice that my heart is beating fast, I worry that there might be something wrong with me." Internal consistency for the Disease Concerns factor scale scores (alpha coefficient) in this sample was 0.83.

Procedure

Parents who contacted the Center were administered a telephone screen by a Center staff member. The telephone screen elicited information about the youths' sociodemographic characteristics (e.g., age, gender), presenting problem, and treatment history (psychosocial and medication). It also screened for the study's exclusionary criteria. Phone screens were conducted either in English or Spanish, depending on parents' language use on the phone. Following the screen, parents who mentioned anxiety-related difficulties as their child's presenting problems (e.g., "always worried," "does not want to be left alone") were asked whether they were interested in scheduling an initial evaluation appointment. Parents who did not mention anxiety-related difficulties but emphasized other presenting problems (e.g., "aggressive") were further questioned about their child's anxiety. If anxiety difficulties were noted as not being an issue of concern, the family was referred to other mental health centers in the community.

At the time appointments were scheduled, parents (usually the mothers) were asked whether they or their children preferred the evaluation (interview and questionnaires) to be administered in English or Spanish. In administering the evaluation in Spanish, we followed guidelines described by Canino and Bravo (1994) in terms of their translation. When families arrived at the Center, they were administered informed consent forms for participation in the study. Once signed informed consent from parents and signed assent from youths were obtained, a comprehensive assessment

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battery consisting of interview schedules and questionnaires was administered. Whereas the ADIS–IV: C was administered to youths, parents were administered the questionnaires. When the ADIS–IV: C was finished, parents were administered the ADIS–IV: P and youths were administered the questionnaires.

Results

Sociodemographic information, percentages of youths presenting with a primary anxiety diagnosis, and means and standard deviations for youth-completed measures for Hispanic/Latino and European American participants are presented in Table 1. Among these variables, chi-square analysis revealed a significant difference for family income, $\chi^2(1) = 5.21$, $p = .02$; t tests revealed significant differences for RCMAS anxiety scores, $t(129) = 2.27$, $p = .03$; CDI total depression scores, $t(134) = 2.17$, $p = .03$; and CASI total scores, $t(111) = 2.59$, $p = .01$. No additional significant differences were found.

As we were conducting multiple t tests, the alpha level was adjusted to minimize Type I errors using Holm's modified Bonferroni correction (Jaccard & Guilamo-Ramos, 2002; Westfall & Young, 1993) retaining .05 as the experimentwise error rate. Holm's method is a step-down method in which the critical value is adjusted for the smallest p value, then the second smallest, and so on, until the largest one is reached and evaluated against an alpha of .05. Holm's modified Bonferroni correction was applied to these and all subsequent analyses. Using Holm's method, differences in RCMAS anxiety scores and CDI scores were no longer statistically significant; differences in CASI Total scores were marginally significant following the correction. Table 2 shows sociodemographic information, proportions of youths presenting with a primary anxiety disorder diagnosis, and means and standard deviations for youth- and parent-completed measures for European American, CA, and non-CA/HL participants. Among these variables, chi-square analysis revealed a significant difference for family income, $\chi^2(2) = 5.84$, $p = .05$; this difference was not maintained when Holm's was applied. For the child-completed measures, analyses of variance revealed significant differences for the STAIC–T anxiety scores, $F(2, 108) = 3.77$, $p = .03$, and CDI total depression scores, $F(2, 133) = 3.00$, $p = .05$. These differences were not maintained when Holm's method was applied.

In terms of somatic/physiological symptoms, analyses of variance were conducted to determine whether CBCL somatic T scores and RCMAS Physiological scale scores were significantly different among the European American, CA, and non-CA/HL youths. Results for the CBCL somatic T scores showed statistically significant differences, $F(2, 118) = 5.94$, $p = .003$, with European American and CA youths showing significantly lower CBCL somatic T scores than non-CA/HL youths after Holm's method. No significant differences were found for the RCMAS Physiological scale scores.

In terms of distressfulness or aversiveness of somatic/physiological symptoms, results showed statistically significant differences for CASI Total scores, $F(2, 110) = 4.27$, $p = .02$, and CASI Disease Concerns factor scale scores, $F(2, 110) = 4.28$, $p = .02$. European Americans reported significantly lower CASI Total

Table 1. *Sociodemographic and Clinical Characteristics of Hispanic/Latino and European American Youths*

	Hispanic/Latino (n = 91)	**European American (n = 61)**
Mean age at intake	9.7 years	9.8 years
Gender (% girls)	55.4	50.8
Annual Family income (% $12,000 or less)	15.1	3.4
Primary Anxiety Diagnoses (%)		
Separation anxiety	29.3	30.4
Generalized anxiety	15.2	25.0
Specific phobia	26.1	21.4
Social phobia	17.4	12.5
Panic	0.0	1.8
Youth Completed Measures	***M* (*SD*)**	***M* (*SD*)**
RCMAS	13.33 (6.62)	10.81 (5.52)
STAIC–Trait	37.04 (8.06)	35.20 (7.62)
CDI	7.22 (6.20)	9.85 (7.42)
FSSC–R	144.53 (32.64)	134.36 (29.70)
CASI*	31.72 (7.99)	28.02 (6.00)

Note: Diagnoses were derived using the Anxiety Disorders Interview Schedule for Children for the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., Silverman & Albano, 1996). RCMAS = Revised Children's Manifest Anxiety Scale; STAIC–Trait = State Trait Anxiety Inventory for Children–Trait Version; CDI = Children's Depression Inventory; FSSC–R = Fear Survey Schedule for Children-Revised; CASI = Childhood Anxiety Sensitivity Index.
*$p < .05$.

Table 2. *Sociodemographic and Clinical Characteristics of European Americans, Cuban Americans, and Non-Cuban American Hispanic/Latinos*

		Hispanic/Latinos	
	European Americans (*n* = 61)	**Cuban (*n* = 62)**	**Non-Cuban (*n* = 29)**
Number of years in United States		28.7 years	13.5 years
Mean age at intake	9.8 years	9.6 years	10.0 years
Gender (% girls)	50.8	54.1	58.6
Annual family income (% $12,000 or less)	3.4	14.5	17.2
Primary Anxiety Diagnoses (%)			
Separation anxiety	29.3	31.1	27.6
Generalized anxiety	24.1	14.8	17.2
Specific phobia	22.4	27.9	20.7
Social phobia	13.8	14.8	20.7
Child Measures	***M* (*SD*)**	***M* (*SD*)**	***M* (*SD*)**
RCMAS	10.91 (5.49)	12.85 (6.38)	14.37 (7.35)
STAIC-Trait	35.33 (7.48)	35.42 (7.56)	40.60 (7.91)
CDI	7.23 (6.12)	9.38 (7.19)	11.13 (8.16)
FSSC–R	135.04 (29.76)	141.64 (33.02)	149.40 (32.26)
Somatic/physiological symptoms			
CBCL Somatic *T* scores	58.16 (17.16)[1]	59.55 (12.82)[2]	69.91 (7.74)[1, 2]
RCMAS Physiological	3.78 (2.32)	4.40 (2.18)	4.63 (2.90)
Somatic/physiological symptoms as distressful			
CASI	28.21 (6.05)[1]	30.71 (8.27)	33.73 (7.25)[1]
CASI Disease Concerns	12.14 (3.00)[1]	13.15 (4.35)	15.05 (4.01)[1]

Note: Numbers sharing the superscripts are statistically significantly differently from each other following Bonferroni pairwise comparison and Holm's correction for experimentwise error rate. Diagnoses were derived using the Anxiety Disorders Interview Schedule for Children for the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.) (Silverman & Albano, 1996). RCMAS = Revised Children's Manifest Anxiety Scale; STAIC–Trait = State Trait Anxiety Inventory for Children–Trait Version; CDI = Children's Depression Inventory; FSSC–R = Fear Survey Schedule for Children-Revised; CBCL = Child Behavior Checklist; CASI = Childhood Anxiety Sensitivity Index.

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scores and CASI Disease Concerns scores than non-CA/HL youths, following application of a Bonferroni pairwise comparison test and Holm's method.

The proportion of non-CA/HL youths whose parents chose the assessment in Spanish (61.8%) was significantly larger, $\chi^2(1) = 22.35$, $p = .001$, than the proportion of CA youths (38.2%) whose parents chose the assessment in Spanish. Exploratory analyses were conducted for the two Hispanic/Latino groups by including language choice (Spanish or English) as a quasi-independent variable. Results showed a statistically significant interaction for the CASI Total, $F(1, 66) = 19.32$, $p = .001$; CASI Disease Concerns, $F(1, 66) = 20.39$, $p = .001$; and RCMAS Physiological, $F(1, 74) = 7.14$, $p = .009$. No significant interaction was found for the CBCL somatic *T* scores. The main effect previously found for the CBCL somatic *T* scores remained significant even with the inclusion of language in the analysis.

Follow-up single degree of freedom contrasts (Boik, 1979; Jaccard & Guilamo-Ramos, 2002) for the RCMAS Physiological, CASI Total scores, and CASI Disease Concerns were conducted. Means, standard deviations, and main results of the single degree of freedom contrasts are shown in Table 3. Results of the single degree of freedom interaction contrast were significant for the RCMAS Physiological scale; single main effect analysis showed significantly higher RCMAS Physiological scores for non-CA/HLs than CAs, for those who chose English. This result did not remain statistically significant, however, after Holm's method was applied. Results of the single main effects for the Spanish language group were not statistically significant.

Results of the single degree of freedom interaction contrasts were statistically significant for the CASI Total and CASI Disease Concerns. That is, CAs who chose the assessment in English reported significantly less distress associated with anxiety-related somatic/physiological symptoms than non-CA/HLs who chose the assessment in English. Single main effect contrast for the Spanish language group showed that CAs reported significantly more distress associated with anxiety-related somatic/physiological symptoms than non-CA/HLs, also in the Spanish language group. Findings remained statistically significant when Holm's method was applied.

Discussion

As found by Ginsburg and Silverman (1996), generally more similarities than differences emerged between European American and Hispanic/Latino youths along the sociodemographic and clinical variables examined. Finding a similar pattern of results in an independent

Table 3. *Means, Standard Deviations, and Single Degree of Freedom Contrasts for Measures of Somatic/Physiological Symptoms and Their Distressfulness*

			Hispanic/Latinos							
	European Americans		Cuban Americans				Non-Cuban American Hispanics/Latinos			
	English		Spanish		English		Spanish		English	
Language Choice	***M***	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***
CBCL										
Somatic	58.16	17.00	59.44	8.47	59.58	13.70	69.13	6.02	71.37	10.58
RCMAS										
Physiological	3.79	2.34	5.45	1.92	4.12	2.18	4.00	2.92	6.14	2.41
CASI										
Total	28.21	6.05	39.10	7.27	28.50	7.07	31.47	5.55	38.57	8.48
Disease Concerns	12.14	3.04	17.60	3.98	11.95	3.64	13.80	3.45	17.71	4.03

Single Degree of Freedom Contrasts	**Parameter**	**SE**	***t***	***p***
RCMAS: Physiological	(*df* = 73)			
SME: Cuban, Non-Cuban for English	–2.05	0.95	2.15	.035[a]
SME: Cuban, Non-Cuban for Spanish	1.45	0.90	1.60	.111
IC: Cuban, Non-Cuban by Spanish, English	3.50	1.31	2.67	.009
CASI: Total	(*df* = 65)			
SME: Cuban, Non-Cuban for English	–10.07	2.86	3.52	.010
SME: Cuban, Non-Cuban for Spanish	7.63	2.84	2.69	.009
IC: Cuban, Non-Cuban by Spanish, English	17.70	4.03	4.40	<.001
CASI: Disease Concerns	(*df* = 65)			
SME: Cuban, Non-Cuban for English	–5.76	1.41	4.09	<.001
SME: Cuban, Non-Cuban for Spanish	3.80	1.40	2.72	<.008
IC: Cuban, Non-Cuban by Spanish, English	9.56	1.99	4.81	<.001

Note: CBCL = Child Behavior Checklist; CASI = Childhood Anxiety Sensitivity Index; RCMAS = Revised Children's Manifest Anxiety Scale; SME = simple main effect contrast; IC = interaction contrast; SE = standard error.
[a]Statistical significance was not maintained when Holm's method was applied across the four simple main effect contrasts to control the experimentwise error rate.

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sample of European American and Hispanic/Latino youths who present with anxiety disorders at a childhood anxiety disorders specialty clinic speaks to the robustness of the findings. Perhaps even more important, however, is that the findings increment the literature by empirically demonstrating that significant differences emerge between Hispanic/Latino and European American youths who present to a child anxiety disorders specialty clinic in terms of somatic/physiological symptoms and distress associated with these symptoms.

Our findings showed that Hispanic/Latino youths vary in their somatic/physiological symptoms and distress associated with the occurrence of these symptoms as a function of ethnocultural group (CA, non-CA/HL) and language choice (English, Spanish). Specifically, parents in the European American and CA groups reported their youths as having significantly less somatic/physiological symptoms than parents in the non-CA/HL group on the CBCL Somatic subscale. This was true for CA and non-CA/HL parents who chose the assessment in English *and* for CA and non-CA/HL parents who chose the assessment in Spanish. In examining youths' ratings of the level of distress associated with having somatic/physiological symptoms (i.e., anxiety sensitivity measured via the CASI), interactions emerged between ethnocultural group and parents' language choice. Specifically, within the English choice group, CA youths reported somatic/physiological symptoms as significantly *less* distressing on the CASI Total and Disease Concerns subscale scores than non-CA/HL youths. Conversely, within the Spanish choice group, CA youths reported somatic/physiological symptoms as significantly *more* distressing than non-CA/HL youths on these same scales.

Although previous studies using clinic-depressive adults patients (Escobar et al., 1983; Mezzich & Raab, 1980) have shown higher somatic/physiological symptom reporting in Hispanics/Latinos relative to European Americans, this study is the first to examine somatic symptoms and distress associated with somatic symptoms in a sample of youths, in general, and in a sample of clinic referred anxious youths, in particular. Only two past studies, both using community samples (i.e., adults, Novy et al., 2001; adolescents, Weems et al., 2002) have compared distress about the occurrence of somatic/physiological symptoms (or anxiety sensitivity) between Hispanics/Latinos and European Americans. Both studies found significantly higher anxiety sensitivity scores in Hispanics/Latinos relative to European Americans. Showing similar elevations in

our help-seeking sample of Hispanic/Latino children and adolescents suggests that distress about somatic/physiological symptoms may be an integral part of their clinical phenomenology. Whether this is true for other help-seeking clinical samples requires further research attention.

Finding variations among Hispanics/Latinos along somatic/physiological symptoms and distress about the occurrence of these symptoms highlights the importance of considering Hispanics/Latinos not as a pan-ethnic group but separately by ethnocultural group and language choice. This is consistent with suggestions in the literature (e.g., Angel & Guarnaccia, 1989; Tierren & Ramirez, 2000; Umaña-Taylor & Fine, 2001), but empirical demonstrations that such variations do in fact exist are generally scarce.

Because this study is the first to examine somatic symptoms and distress about these symptoms in a clinic-referred sample of Hispanic/Latino youths with anxiety disorders and to consider ethnocultural group and language, an important next step would be to examine the extent that these findings replicate in independent samples of youths with anxiety disorders and other disorders. After such replications and extensions, it would be critical that future research efforts begin to focus on "why" variations exist as a function of ethnocultural group and language choice. For example, it has been suggested that Hispanics/Latinos are prone to think that to receive professional care by medical or mental health professionals they need to disclose the presence of physical problems (e.g., headaches, stomachaches; Canino et al., 1992). Perhaps, therefore, the parents of the Hispanic/Latino youths in this sample reported elevated physical problems in their youths because they thought that such reporting would facilitate obtaining services at our clinic. This possibility warrants additional study.

Other important avenues for research include the manner in which Hispanics/Latinos interpret somatic/physiological symptoms and how these interpretations may come about in terms of familial socialization processes, such as parental modeling and parental reinforcement patterns. For example, it could be the case that in some Hispanic/Latino groups, parents tend to react to their own somatic/physiological symptoms by refraining from daily activities (e.g., going to work). Other parents may react to their youths' somatic/physiological symptoms by providing them with special foods or get-well gifts and allowing them to stay home from school. Parental actions such as these could reinforce the youths' displays of and ideas about the meaning of somatic/physiological symptoms.

On a clinical level, the study's findings suggest that clinicians should consider broadening their assessments to include measures that evaluate somatic/physiological variables and distress about their occurrence. For example, clinicians could use the CBCL and CASI to inquire about somatic symptoms and distress about these symptoms. Also, when inquiring about somatic/physiological symptoms and distress, clinicians should further their inquiry to gather information about cultural practices and beliefs associated with somatic symptoms and distress associated with these symptoms.

Several limitations are worth noting. Assessment of somatic/physiological symptoms in this study was rather limited in scope. A more full and complete picture of the subsamples' similarities and differences may have emerged if a detailed somatic symptom checklist was administered, as in past research with adults (Canino et al., 1992). Another measurement limitation is that despite the wide use of these measures in samples of youths (ages 5 to 17 years), only the RCMAS and the CBCL included youths with such broad age ranges in the measure development phases. Also, very few of these self-report measures included Hispanics/Latinos in the measure development phases. In this study, however, measurement reliability estimates were similar to those reported in the psychometric research literature for these measures. Whether our findings replicate with measures developed or rigorously tested for use with youth ages 5 to 17 years old or with Hispanic/Latino youth remains an empirical question. Another limitation is that it was only possible to form a separate group of CAs; it would be important for future research to examine other groups of Hispanic/Latino youths as this would help shed light on whether there are (or not) variations in cultural specific patterns in reporting somatic symptoms and distress about somatic symptoms.

Finally, in light of the study's findings regarding variations as a function of parents' language use during the assessment process, it would be important for future studies to examine the role of language in somatic/physiological symptom reporting. For example, it is unclear whether the use of Spanish language (instead of English) represents a proxy for acculturation (Angel & Guarnaccia, 1989) or represents a cultural signifier for reporting psychosocial or psychological distress, including anxiety (Reichman, 1997) independent of acculturation level. Future research should be directed toward clarifying these possibilities.

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