

# Gender, Age, and Racial Differences in Self-Reported Fears Among School-Aged Youth

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**Abstract** Little is known about how self-reported fears differ among racially diverse school-aged populations. Given this gap in the literature base, we examined the extent to which self-reported fears differed among White American, African American, and Hispanic youth (Grades 2–12), using the American Fear Survey Schedule. The study sample included 1,033 youth ( $M_{\text{age}} = 12.56$ ;  $SD = 3.02$ ) from two southeastern states. Group differences on self-reported fear scores were analyzed using descriptive discriminant analysis. The results revealed statistically significant differences in five select fears among our racially diverse study sample. Gender differences—with girls reporting greater rates of fears than boys—were evidenced in our study sample as well. Fear differences among the sample included highest animal and death and dying fears for the African American youth, highest school-related fears for White youth, and the least fears—family-related concerns by the Hispanic youth. Another finding was the prominence of fears related specifically to crime, robberies, guns, weapons, and violence. Implications are discussed and potential directions for future research in the schools are presented.

**Keywords** Youth's fears · Race · Age · Gender · Descriptive discriminant function analysis

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## Introduction

Self-reported fears of children and adolescents have been examined for over a century (Hall 1897). However, and of significance, researchers have given scant attention to the extent to which differences in prevalence rates or type of fears exist based on race (Ginsberg and Silverman 1996; Lapouse and Monk 1959; Last and Perrin 1993; Neal et al. 1993; Owen 1998). Yet, to work effectively with diverse youth in today's K-12 schools, helping professionals need to understand racially and culturally diverse populations (Burnham and Lomax 2009; Burnham et al. 2009; Goh et al. 2007; Koskinen et al. 2000). Moreover, culturally responsive interventions and treatments for children's fears and the corollary outcomes cannot be developed, evaluated, and empirically tested until researchers and practitioners are clear on the differences that *may* exist. Thus, the criticality of understanding how fears differ among racially and culturally diverse populations, if at all, is an important understudied area that must be explored. Other cultural factors that are important areas of study include gender and age, although these factors have been explored at greater rates than explorations focused on the potential link between self-reported fears and race. Fear is defined in the present study as a "normal reaction to a real or imagined threat" (Gullone 2000, p. 429).

With the above-mentioned gap in the research literature in mind, the primary aim of the present study was to examine racial, gender, and age differences among a large sample ( $n = 1,033$ ) of White American, African American, and Hispanic youth. A secondary aim was to use descriptive discriminant analysis—an under-used data analytic procedure in youth fear studies—to explore our research questions and to better understand grouping effects (see Huberty 1994; Stevens 2002; Thompson 1991) based on race and gender.

We review the empirical literature base from the past several decades on the correlation between gender and age and self-reported fears, we explore the limited empirical literature base of studies on the relation between race and self-reported fears, and finally, we review Gullone and King's (1993) seminal research that informed the present study.

### Gender, Age, and Racial Differences in Self-Reported Youth Fears

Girls report the expression of fear more than boys—irrespective of age; this finding is an occurrence that has been chronicled for decades (Angelino et al. 1956; Bauer 1976; Burnham 1995, 2005; Gullone and King 1992, 1993; King et al. 1989; Lapouse and Monk 1959; Ollendick 1983; Scherer and Nakamura 1968). The wide acceptance of gender differences in fears has been explained by gender role expectations or the socialization of girls and boys (Bauer 1976; Burnham 2005; Graziano et al. 1979; Gullone and King 1993; King et al. 1989). To elaborate on this oft-lamented assertion, many researchers contend the socialization of girls allows girls to express their fears or report their fearfulness, whereas boys may be more reluctant to identify and report their fears (e.g., boys may choose to appear “strong or silent”). Whether or not this phenomenon explains gender-related fear differences, data from decades of fear research have shown girls to be significantly more fearful than boys in self-report fear studies (Angelino et al. 1956; Bauer 1976; Burnham 1995, 2005, 2009; Burnham and Hooper 2008; Gullone and King 1992, 1993; King et al. 1989; Lapouse and Monk 1959; Ollendick 1983; Scherer and Nakamura 1968).

Age-related fearfulness, including patterns that are predictable, sequential, and developmental in nature are well-documented (Gullone 2000). To illustrate, between ages 3–5, fears are frequently related to scary creatures and the supernatural (King and Ollendick 1989). School-related fears emerge by ages 5–6 (Elbedour et al. 1997). In adolescence, fears often relate to injury or anxiety (Ollendick et al. 1985). Traditionally, the breadth and number of fears decrease with age (Burnham 2005; Gullone and King 1992; King et al. 1989; Ollendick 1983), although some inconsistencies have been reported in the literature base. For example, typically decreases occur in such fears as darkness and the supernatural; however, academic-related fears and talking in front of the class tend to increase with age (Gullone and King 1993).

Researchers have examined racial and cultural differences and the expression of fears among youth with an increased focus in recent decades (Gullone 2000). Cross-cultural comparisons based on country-of-origin have included Australian and American children (Burnham and

Gullone 1997), British and American children (Ollendick and Yule 1990), Antillean and Belgium children (Muris et al. 2002), and fears across four continents (Ollendick et al. 1996). A recent study compared North and South American fears among youth for the first time (Burnham et al. 2011). Researchers who have examined the relation between self-reported fears and racial diversity delimited to children in the U.S. is notably sparse. Studies include Burnham and Lomax (2009), Ginsberg and Silverman (1996), Lapouse and Monk (1959), Last and Perrin (1993), Neal et al. (1993), Owen (1998) and Tippey (2007). Researchers who have investigated the specific impact of race on prevalence, intensity, and type of fears in U.S. populations has—more often than not—compared two racial groups (i.e., either African American and White children or Hispanic and White children), with the exception of the present study and Burnham and Lomax (2009), who compared three racial groups (i.e., African American, White, Hispanic children) in one fear study for the first time. Based on the extant literature base it is clear that more studies are needed. Moreover, most of the existing research is dated (e.g., 1959–1998 with a few exceptions), thereby limiting the utility of the findings for professionals who work with youth from racially and culturally diverse backgrounds. Given the focus of the present study, we describe the findings from these specific studies in the next section.

### Racial Comparisons of Self-Reported Youth Fears in U.S. Populations

#### Comparing the Fears of African American and White Children

When the fears of African American and White children have been compared, more similarities than differences have been revealed (Ginsberg and Silverman 1996; Last and Perrin 1993). Nonetheless, the differences among the racial groups are worth review. For example, researchers of two studies confirmed that African American children reported more fears than White children (Lapouse and Monk 1959; Nalven 1970). Researchers for three unique studies also reported that animal fears appear to be more prevalent for African American children than White American children (Lapouse and Monk 1959; Last and Perrin 1993; Nalven 1970). Lapouse and Monk not only reported higher animal fears for the African American children, but also found that they feared thunder, germs, and people more than White children. In addition, Last and Perrin observed that while White children report generalized fears of animals, African American children were prone to report fears of specific animals (e.g., snakes, rats, bees). These reported differences between African

American and White children's fears, led to speculation that some fear differences across race may be related to semantics rather than cultural differences (Last and Perrin 1993; Neal et al. 1993; Neal and Turner 1991). Beyond the differences in animal fears, Last and Perrin posited that White children had more tendencies toward fears related to school refusal than African American children; conversely, Neal et al. documented no school-related fears among their African American sample.

#### Comparing the Fears of Hispanic and White Children

We identified only three studies from which to draw preliminary conclusions about specific fears unique to Hispanic youth and/or different from White youth. Specifically, when the fears of Hispanic students and White students were compared, Owen (1998) reported more similarities than differences (i.e., no significant differences in the number of fears, total fear scores). However, differences existed on *types* of fears. Hispanic children were found to be more fearful of earthquakes and getting burned, while White children had more intense fears of fire, death, and dead people (Owen 1998). In another study, Ginsberg and Silverman (1996) reinforced the view that more likenesses than distinctions are present between the fears reported by Hispanic and White children, but also reported the idiosyncratic finding of higher separation anxiety for Hispanic children. In a fear-related study that compared the anxieties of Hispanic youth to White youth, Hispanic children had higher fears in relation to “general worries, fears of the unknown, and fears of death and danger” (Varela et al. 2008, p. 140).

#### Comparing the Fears of African American, Hispanic Children, and White Children

To our knowledge, only one study has compared White, African American, and Hispanic children's fears (see Burnham and Lomax 2009) in the U.S. Filling a significant gap in the literature, Burnham and Lomax, were the first researchers to examine fears of youth in the three largest racial and ethnic groups in the US within the same study. In their study, they hypothesized that fears among the three groups would be different. Group differences were analyzed using multivariate analysis of variance. Burnham and Lomax (2009) reported three new findings related to types of self-reported fears that had not been previously reported in racial group fear comparisons. The results were (a) elementary White children have greater school and family related fears than African American elementary children; (b) elementary African American and Hispanic children have greater fears of scary things than elementary White children; and (c) middle and high school African American children have greater death and danger fears than White

middle and high school children. Based on their results, Burnham and Lomax concluded that more research is needed to clarify the possible difference in fears (or the expression of fears) among various racial groups.

A recent study, following Burnham and Lomax's (2009) fear comparisons across the three largest racial groups (i.e., White children, African American children, and Hispanic children), offered insight about racial differences. This particular study compared White children, African American children, and Hispanic children from North America to their counterparts in South America (Burnham et al. 2011). In this study, the three groups of girls from South America (White, African American, and Hispanic) were found to be the most fearful, based on the FSSC-AM, with the African American girls ranking as most fearful among all groups. Unpredictably, the White boys from South America endorsed higher fear levels than girls and boys from North America, an outcome that was distinctive since girls typically report more fears than boys (Angelino et al. 1956; Burnham 1995; Burnham and Gullone 1997; Gullone and King 1992, 1993).

#### Gullone and King's Seminal Fear Research

The original Fear Survey Schedule for Children (FSSC) was proposed by Scherer and Nakamura in 1968. The Australian Fear Survey Schedule for Children-Revised (FSSC-R) was developed by Gullone and King (1992). Gullone and King (1992, 1993) updated the original survey by adding relevant items not evidenced on the FSSC (e.g., added “AIDS” and deleted “fear of Russia”). With the updated survey, Gullone, King, and colleagues offered new opportunities to compare children's fears, and most notably to offer continuation of “cross-cultural and cross-national investigations” (Gullone 2000, p. 430). After these modifications were introduced, numerous studies emerged. Whereas Gullone and King (1997) published a longitudinal study on children's fears, numerous researchers (e.g., Bouldin and Pratt 1998; Lane and Gullone 1999; Owen 1998; Westenberg et al. 2007) have reanalyzed their data, or made direct comparisons to Gullone and King's studies (Gullone and King 1992, 1993) with new empirical studies (e.g., Burnham 1995). Gullone and King's fear research continues to be one of the most oft-cited nationally and internationally.

#### Rationale for Descriptive Discriminant Function Analysis

Given the research designs and specific research questions that have been put forward in the last two decades, it is surprising that discriminant analysis has been used so

infrequently in fear studies. To date, five researchers (i.e., Gullone and King 1993; King et al. 1992; Tippey 2007; Weems et al. 1999) have used discriminant analysis in their empirical investigations of children's fears. Of these studies, four were composed of special or clinical populations (King et al. 1992; Muris et al. 2000; Tippey 2007; Weems et al. 1999), and one was composed of a non-clinical population of Australian students (Gullone and King 1993). With the similarities between the Gullone and King's (1993) discriminant function analytic study composed of a non-clinical youth population and the present study, the two studies will be compared.

We concur with Gullone and King (1993) that descriptive discriminant function analysis is an ideal approach to explore our research aims related to describing differences in fears based on the grouping effects of race, gender, and age (see Huberty 1994; Stevens 2002; Thompson 1991). In addition, the use of discriminant function analysis has been under-utilized in fear literature.

### The Present Study

Given the dearth of research focused on the expression of fears among racially diverse youth, the present study was designed to address this gap in the literature. More specifically, the aims of the study were three-fold: (a) to compare factor scores for elementary and middle/high youth across racial, gender, and age groups using the American Fear Survey Schedule for Children (FSSC-AM) (Burnham 2005); (b) to describe which items on the FSSC-AM most discriminated between racial, gender, and age groups; and (c) to compare findings from the present study to findings from a seminal fear study, which also used a descriptive discriminant data analytic approach to understand fear scores based on group membership (see Gullone and King 1993).

### Method

#### Participants

Data were collected in 28 schools ( $n = 1,033$ ) in two southeastern states in the United States during 2001 through 2005. The convenience sample consisted of 466 elementary children in Grades 2–5 (45 %), 564 middle/high school children in Grades 6–12 (55 %), and three children who did not specify grade level. There were 544 females (53 %), 457 males (44 %), and 32 who did not specify gender (3 %). Their age range spanned 7–18 years. The total study's sample mean age was 12.56 ( $SD = 3.02$ ). The racial background included: 481 White American children (47 %), 241 African American children (23 %), 239 Hispanic children

(23 %), and 72 who did not identify race (7 %). As far as age of the children across racial backgrounds, there were 126 White children between the ages of 7–10, 176 White children between the ages of 11–14, and 179 White children between the ages of 15–18. There were 104 African American children between the ages of 7–10, 81 African American children between the ages of 11–14, and 56 African American children between the ages of 15–18. There were 59 Hispanic children between the ages of 7–10, 130 Hispanic children between the ages of 11–14, and 50 Hispanic children between the ages of 15–18.

#### Instrument

The original Fear Survey Schedule for Children (FSSC; Scherer and Nakamura 1968) was developed to capture a range of fears often reported by youth. The FSSC is one of the most commonly used instruments by researchers to assess fears of youth. Findings put forward by Gullone and King (1992) suggests evidence of high internal consistency for the FSSC (i.e., Cronbach's alpha of .96, and one-week test–retest reliability at .90). Strong evidence of divergent, construct, and convergent validity has been reported for the FSSC as well (see Gullone and King 1992).

The American Fear Survey Schedule for Children (FSSC-AM; Burnham 1995) is an updated version of the FSSC and was used in the current study. The FSSC-AM is a 98-item, self-report survey that was designed to assess a range of common fears (e.g., snakes, spiders, taking a test) and specific fears (e.g., having to fight in a war, nuclear war) revealed among American children and adolescents. In the present study, participants responded to a list of 98 fear items by marking an "X" in front of the best choice that represented how they were feeling at the time of administration. Respondents had a choice of three Likert-style options for each question (*not scared*, *scared*, or *very scared*). Similar to the original FSSC, the FSSC-AM has begun to accumulate evidence related to the reliability and validity of the scores produced by the measure. Recent studies have reported reliability coefficients ranging from .87 to .97 (Burnham 2005; Burnham and Hooper 2008). Score reliability in the present study was assessed using Cronbach's alpha; the Cronbach's alpha was .98.

#### Procedure

After university's institutional review board approval, written parental consent and verbal assent from the youth were required. For test administration, the FSSC-AM survey directions were read aloud to all students. The FSSC-AM directions were read aloud to Grades 2–12, while the entire survey was read aloud to Grades 2–3, the older students were allowed to read the fear items and work

independently. The participants were asked to circle one of the following options on the FSSC-AM: “not scared,” “scared,” or “very scared.” The administration of the FSSC-AM took place in classrooms at school with the teacher in the classroom. The fear surveys were administered by the first author or graduate students trained to use the survey. This step ensured that a consistent manner was used each time for the administration of the survey. The survey took approximately 15–30 min to complete, based on age. When questions arose the administrators answered the individual or group questions promptly.

#### Data Analytic Plan

Prior to this present study, exploratory factor analyses (i.e., Principal Component Analysis) were conducted on the elementary and middle/high school versions of the FSSC-AM. For elementary (Grades 2–5), five factors emerged with 42.6 % of the total variance was explained. For middle/high (Grades 6–12), five factors emerged with 43.3 % of the total variance was explained.

For the present study, factor scores were computed and analyzed across gender, age, and race using Statistical Package for the Social Sciences (SPSS), version 17. Although discriminant function analysis can be used to explore research questions related to prediction or description (Huberty 1994) we selected *descriptive* discriminant function analysis (DDA) because we were interested in identifying differences in the fear scores that most distinguish or differentiate our targeted study groups. More specifically, DDA was used to compare the factor scores for different racial, gender, and age groups. Differences among the five fear factor scores were examined separately for elementary and middle/high school children to determine which general fears best discriminated among the groups. This procedure was then followed by item level analyses to determine which specific fear items best discriminated among the above-mentioned groups.

The canonical correlation was used as a measure of effect size. Using Cohen’s subjective standards, a strong effect size was obtained for both the ethnic group and gender results (correlations ranged from .43 to .58 for the elementary school sample and from .42 to .51 for the middle/high school sample).

#### Results

Descriptive discriminant function analyses were performed to differentiate between the five fear factor scores on the elementary version (Grades 2–6) of the FSSC-AM. Discriminant function analysis for gender correctly classified 78 % of the cases, significantly greater than 50 % chance

with two groups ( $p < .05$ ). All five fear factors had significant group differences (all at  $p < .05$ ). Girls were more fearful on each factor (see Table 1). The group centroids for the gender analyses were as follows: (a) elementary sample— $F = .620$ ,  $M = -.813$ ; (b) middle/high sample— $F = .530$ ,  $M = -.631$ .

The elementary discriminant function analysis for the racial group variable had two discriminant functions. Function 1 was mostly the animal factor, whereas function 2 was mainly the other four factors. Significant racial group differences (all at  $p < .05$ ) were evident on three factors (i.e., school, scary, and animal). The group centroids for the race analyses were as follows for the elementary sample—function 1:  $C = -.464$ ,  $A = .623$ ,  $H = .147$ ; function 2:  $C = -.093$ ,  $A = -.186$ ,  $H = .483$ . Discriminant function analysis for racial group correctly classified 62 % of the cases, significantly greater than 33 % chance with three groups ( $p < .05$ ) (see Table 1). The significant racial group differences ( $p < .05$ ) were as follows (i.e.,  $C =$  White American,  $A =$  African American, and  $H =$  Hispanic): school fears:  $C \& H > A$ ; scary fears:  $H \& A > C$ ; animal fears:  $H \& A > C$ .

Descriptive discriminant function analyses were performed to differentiate between the five fear factor scores on the middle/high student version (Grades 7–12) of the FSSC-AM. The discriminant function analysis for gender correctly classified 74 % of the cases, significantly greater than 50 % chance with two groups, with girls being more fearful on

**Table 1** Factor scores of study participants

	Gender	Race
<i>Elementary factor scores</i>		
I. Death and danger fears	$p < .05$ : girls > boys	
II. School and family-related fears	$p < .05$ : girls > boys	$p < .05$ : $C \& H > A$
III. Fear of scary things	$p < .05$ : girls > boys	$p < .05$ : $H \& A > C$
IV. Animal fears	$p < .05$ : girls > boys	$p < .05$ : $H \& A > C$
V. Fear of the unknown	$p < .05$ : girls > boys	
<i>Middle/high factor scores</i>		
I. Death and danger fears	$p < .05$ : girls > boys	$p < .05$ : $A > C \& H$
II. Animal fears	$p < .05$ : girls > boys	$p < .05$ : $A > C \& H$
III. School-related fears	$p < .05$ : girls > boys	
IV. Fear of the unknown	$p < .05$ : girls > boys	
V. Medical fears	$p < .05$ : girls > boys	

A African American, C White American, H Hispanic

each factor than boys ( $p < .05$ ). All five fear factors had significant group differences (all at  $p < .05$ ) (see Table 1),  $F = .530$ ,  $M = -.631$ . The group centroids for the gender analyses were as follows for the middle/high sample—function 1:  $C = -.260$ ,  $A = 1.064$ ,  $H = -.194$ ; function 2:  $C = -.099$ ,  $A = -.017$ ,  $H = .285$ . The middle/high discriminant function analysis for racial group had two functions. Function 1 was mostly animal, death and danger, and school, whereas function 2 was mostly medical and unknown fears. The death and danger and animal factors had significant racial group differences (both at  $p < .05$ ). The discriminant function analysis for race group correctly classified 62 % of the cases, significantly greater than 33 % chance with three groups ( $p < .05$ ). The significant racial group differences were as follows (all at  $p < .05$ ) (i.e.,  $C =$  White American,  $A =$  African-American, and  $H =$  Hispanic): death fears:  $A > C \& H$ ; animal fears:  $A > C \& H$  (see Table 1). A strong effect size was obtained for both the ethnic group and gender results, correlations ranged from .42 to .51 for the middle/high school sample.

#### Item Level Analysis

For the gender variable, 82 % of the cases were classified correctly ( $p < .05$ ), with girls more fearful on each of the fear items than boys. Function 1 was significant ( $p < .05$ ). The top ten most discriminating fears for girls and boys are given in Table 2. For the age variable, 72 % of the cases were classified correctly ( $p < .05$ ). Two functions were significant (both  $p < .05$ ; see Table 2) for the top 10 most discriminating fears for 7–10 (group 1), 11–14 (group 2), and 15–18 (group 3) year olds. For the racial group variable, 82 % of the cases were classified correctly ( $p < .05$ ). Two functions were significant (both at  $p < .05$ ; see Table 2). A very strong effect size was obtained for both the ethnic group and gender results (correlations ranged from .71 to .79 for the elementary school sample and from .72 to .76 for the middle/high school sample).

#### Comparing American and Australian Fears

For boys and girls, similarities and differences were revealed across the Australian and American countries (see Table 3). Top 10 most discriminating fears that were the same across the countries included: “rats,” “snakes,” “murderers,” “spiders,” and “mice.” Fear results also showed differences (i.e., Australian children chose “fire,” “bushfires,” “having an operation,” and “being alone” [Gullone and King 1993]; American children chose “burglar breaking into house,” “robberies,” “crime,” and “people carrying guns and weapons”). Age groups were also compared across the countries. Top 10 most discriminating fears that were identical for the countries were: “drunk people,” “strangers,” “being sent to

the principal,” “taking drugs,” and “earthquakes.” Fear results also showed differences (i.e., Australian children chose “being kidnapped,” “getting lost,” “having to talk in front of my class,” “cyclones,” and “our country being invaded” [Gullone and King 1993]; American children chose “violence on tv,” “riots,” “my parents arguing,” “myself dying,” “failing a test,” “nuclear war,” “taking a test,” “getting my report card,” and “getting bad grades at school”).

#### Discussion

The first aim of this study was to compare factor scores from the FSSC-AM for elementary and middle/high youth. Elementary and middle/high girls were more fearful (endorsed more fears at a higher level) than boys on all factors, which is consistent with decades of research findings that girls express more fear than boys (Angelino et al. 1956; Bauer 1976; Burnham and Gullone 1997; Burnham and Hooper 2008; Gullone and King 1992, 1993; Ollendick 1983; Owen 1998). Thus, girls appeared to either be more fearful or at least more willing to admit fears than boys.

However, by analyzing the elementary and middle/high factor scores, differential findings based on race were uncovered. For example, with the elementary level, Hispanic and African American children were more fearful of scary things and animals and White and Hispanic children were more fearful of school-related fears on the FSSC-AM. Such findings were analogous and—at the same time—inconsistent with past research [i.e., higher endorsement of animal fears for African American children were similar to Lapouse and Monk (1959), Last and Perrin (1993), and Nalven (1970)] and considerably different than self-reported fears in the Hispanic sample. African American children had the least school-related fears, which is consistent with Neal et al.’s (1993) view of no school-related fears among their African American sample. It appears that elevated animal fears for African American children have been one of the more consistent results across time.

The findings in the present study were also different than the findings evidenced in Ginsberg and Silverman’s (1996) and Owen’s (1998) research. Both researchers and their colleagues reported few differences between the fears of Hispanic and White American children. In contrast, in the present study, we revealed that Hispanic children, like White American children, have more school-related fears than African American children. Also, Hispanic children and African American children had a greater fear of scary things and animals than White American children. These results may be more analogous with Varela et al.’s (2008) research (i.e., showing that Hispanic children have more “general worries [and] fears of the unknown” [p. 140] than White children).

**Table 2** Top ten American fears after discriminant function analysis

Top ten most discriminating for boys and girls	
1. Rats 2. Snakes 3. Getting lost in a strange place 4. A Burglar breaking into my house 5. Robberies 6. Spiders 7. Murders 8. Mice 9. Crime 10. People carrying guns, knives, and weapons	
Top ten most discriminating for 7–10 (Group 1), 11–14 (Group 2), and 15–18 (Group 3)	
<i>Function 1</i>	<i>Function 2</i>
1. Drunk people (1 > 2 > 3) 2. Strangers (1 > 2&3) 3. Violence on television (1 > 2 > 3) 4. Riots (1 > 2 > 3) 5. My parents arguing (1 > 2 > 3) 6. Being sent to the principal (1 > 2 > 3) 7. Taking dangerous drugs (1 > 2 > 3) 8. Myself dying (1 > 2 > 3) 9. Earthquakes (1 > 2 > 3) 10. Strange looking people (1 > 2&3)	1. Failing a test (2 > 1&3) 2. Nuclear war (1 > 3 > 2) 3. Getting my report card (2 > 1&3) 4. Taking a test (2&3 > 1) 5. Not having enough money (3 > 1&2) 6. Going to a new school (3&2 > 1) 7. Being poor (1 > 2 > 3) 8. Car wreck (1 > 2&3) 9. Looking foolish (2 > 1&3) 10. Getting bad grades at school (1&2 > 3)
Top ten most discriminating fears White American, African American, and Hispanic	
<i>Function 1</i>	<i>Function 2</i>
1. Lizards (W < A&H) 2. Thunder (W < A&H) 3. Tigers (W < A&H) 4. Thunderstorms (W < A&H) 5. Losing my friends (W > A&H) 6. Dogs (W < H < A) 7. Having no friends (W&H > A) 8. Forest fires (W < A&H) 9. Strange looking people (W < A < H) 10. Haunted houses (W < A&H)	1. Being poor (W&A > H) 2. Being bullied (H > W&A) 3. My parents separating or getting divorced (H&W > A) 4. Flying in an airplane (A > W&H) 5. Making mistakes (H > A&W) 6. Tornadoes/hurricanes (A > W&H) 7. Drive-by shootings (A > W&H) 8. Spiders (W&A > H) 9. Rats (A > W&H) 10. Earthquakes (A > W&H)

A African American, W White American, H Hispanic

Ages 7–10 (Group 1), Ages 11–14 (Group 2), and Ages 15–18 (Group 3)

For the middle/high children, differences in the expression of fears were also noted. African American adolescents had greater death and danger and animal fears than the other groups. This finding buttresses results evidenced in past studies (i.e., more fears by African American adolescents than White adolescents [Lapouse and Monk 1959; Nalven 1970; Neal and Turner 1991] and higher animal fears for African American youth [Lapouse and Monk 1959; Last and Perrin 1993; Nalven 1970]). In

the present study, White American and Hispanic adolescents reported fewer death and animal-related fears than African American adolescents.

Overall, researchers may hypothesize that African American and Hispanic children are permitted to reveal fears similar to girls, whereas there may be more reluctance among the White children to honestly express fears, especially the White male children. This willingness to report fears was also seen in White South American boys

**Table 3** Comparing of Australian and American most discriminating fears

Similarities between Australian <sup>a</sup> and American	Australian differences	American differences
<i>Top ten most discriminating fears for gender (boys and girls)</i>		
Rats	Fire	Getting lost in strange place
Snakes	Being in a fight	A burglar breaking into house
Murderers	Bushfires	Robberies
Mice	Having an operation	Crime
Spiders	Creepy houses	People carrying guns, knives, weapons
	Being alone	
	Having bad dreams	
	Being alone at night	
<i>Top ten most discriminating fears for age</i>		
Drunk people	Being kidnapped	<i>Function 1</i> Violence on TV
Strangers	Getting lost in a strange place	Riots
Being sent to the principal	Having to talk in front of my class	My parents arguing
Taking dangerous drugs	Getting lost in a crowd	Myself dying
Earthquakes	Our country being invaded	<i>Function 2</i> Failing a test
Strange looking people	Cyclone	Nuclear war
		Getting my report card
		Taking a test
		Not having enough money
		Going to a new school
		Being poor
		Car wreck
		Looking foolish
		Getting bad grades at school

<sup>a</sup> Australian sample results derived from Gullone and King (1993)

who unprecedentedly endorsed more fears on the FSSC-AM than all North American boys and girls (Burnham et al. 2011).

The second aim of this study was to determine which fear items on the FSSC-AM most discriminated between gender, age, and racial groups. Animal fears were most predominant, followed by a combination of scary and unknown fears. In most cases, the White American youth were the least fearful of the three groups (see Table 2). For example, White American adolescents were the least afraid of such items as “thunder,” and “tigers” and most afraid of school-related fears such as “losing my friends” and “having no friends.” School-related fears for White youth have been documented in past research on fear (Neal et al. 1993). For African American youth, “dogs” discriminated strongest and “having no friends” was least. The prominence of the fear of animals for African American youth is also consistent with previous studies (Lapouse and Monk

1959; Last and Perrin 1993; Nalven 1970). Interestingly, this finding has held up over time (i.e., from 1959 to date). The highest fear for the Hispanic youth, “strange looking people,” offers new insight.

Findings from function 2 (see Table 2) related to death and danger fears, animal fears, and school-related fears. For this function, when examining the ten most discriminating fears, the Hispanic youth were the most fearful of “being bullied” and “making mistakes” and the least fearful of “being poor” and “spiders.” The African American youth were the most fearful of “flying in an airplane,” “tornadoes/hurricanes,” “drive-by shootings,” “rats,” and “earthquakes” and least afraid of “my parents separating or getting a divorce.” The findings underline the work of Ginsberg and Silverman (1996) and Owen (1998), which suggested similarities between Hispanic youth’s fears and White youth’s fears, were not entirely supported in this study.

Age differences across self-reported fears were worth noting. As expected, the youngest children (ages 7–10) were the most fearful, followed by the middle (ages 11–14), and then the oldest (ages 15–18). Most fears followed this trend. Overall, the trend for fears to decrease as age increases, as seen in function 1, is well-documented (Burnham 2005; Gullone and King 1992; Ollendick 1983). Yet, in contrast, “getting bad grades” was equally fear-provoking for the middle and youngest groups. Inconsistencies were also observed in function 2. For example in function 2, the youngest children (ages 7–10) were most fearful of “being poor,” “car wreck” and “nuclear war” and least fearful of “taking a test.” The middle children (ages 11–14) were most fearful of “failing a test,” “getting my report card,” “taking a test” and least fearful of “nuclear war.” The oldest children (ages 15–18), which typically report the least fears (Burnham 1995, 2005; Gullone and King 1992, 1993), were most fearful of “not having enough money” and “going to a new school.” The oldest also had more fear of “nuclear war” than the middle children. These findings suggest that there are concerns in middle and high school that should be recognized by professionals. Overall, the discriminating fears in this study for the middle/high youth correlated with previous fear studies. For example, Angelino et al. (1956) reported that economic and political fears increased with age, which may explain the increase in fears of “nuclear war” for the oldest children. Similarly, Gullone and King (1993) found that criticism and failure-related fears increased in middle childhood, as was found for the middle childhood group in the present study.

The third aim of this study was to compare findings from the present study to Gullone and King’s (1993) seminal Australian fear study. As illustrated in Table 3, five of the top ten discriminating fear items for gender were found to be the same, four of which were animal fears. Thus, similarities were seen between the Australian and American fear samples, similar to past studies between Australian and American youth (Burnham and Gullone 1997; Ollendick et al. 1989; Ollendick and King 1994). Similarly, in the present study, our results revealed gender differences across the samples, with American children generally more fearful of crime-related events as “robberies,” “crime,” and “a burglar breaking into my house.” When age groups were considered, function 1 showed similarities with six fears being the same for all three age groups. However, function 2 offered unique fears that appear meaningful. For the American sample, eight of the top fears related to school issues (e.g., “getting bad grades,” “taking a test,” “going to a new school”), while the remaining were death and danger-related (e.g., “nuclear war,” “car wreck”). Of most interest were the American fears that related to death and danger situations and specifically to crime and violence. These findings appear to be distinguishing societal and cultural differences between

the two countries and also revealing the contemporary concerns of children and adolescents in the U.S. (i.e., crime, violence, danger in our society).

#### Limitations of the Study

There were limitations to this cross-sectional study that must be considered. First the current study was composed of a convenience sample of K-12 youth. It is possible the resultant sample was uniquely motivated to participate and thus we cannot rule out the potential for selection bias. Second, the children and adolescents were from two states in the U.S., thus generalizability to other regions of the U.S. is uncertain. Third, even though the three largest racial groups were well-represented, the sample ( $n = 1,033$ ) did not include a sufficient number of Asian youth to include in the analyses. Fourth, the comparison between the American and Australian data represents research comparisons from two unique decades. Thus, all conclusions put forth ought to be interpreted with caution. Moreover, findings from the current study ought to be examined with additional samples.

#### Implications

Using descriptive discriminant analysis, the overall purpose of this study was to clarify how fears differ among the three largest racial groups in the U.S. based on a self-report fear survey. Because counselors are working with more diverse populations and are strongly urged to develop multicultural knowledge and skills in order to be culturally aware, appropriate, and supportive (Burnham et al. 2009; Roysircar 2003), this research has importance.

The primary finding of our study that White American, African American, and Hispanic youth report unique fears has implications for professionals working a range of contexts, including schools. The most compelling results were the differences seen in fears evinced in the current sample underscore the need for helpers, educators, and policy makers to consider the need to take racial and cultural factors into consideration when assessing and treating outcomes related to fears in culturally diverse communities in which American youth are embedded. Moreover, not only did our results reveal the possible implications of differences of self-reported fear based on racial groups but we also uncovered differences based on geographical regions (viz., American youths’ self-reported fears differed from Australian youths’ self-reported fears). These preliminary results have implications for school counselors, community-based helping professionals, and educators. Counseling professionals and educators could culturally tailor their questions and treatment conversations about fears based on age and race differences.

Our results also generated questions that ought to be explored in future research. The questions were: (a) Why are animal fears highest for African American youth (Lapouse and Monk 1959; Last and Perrin 1993; Nalven 1970)?; (b) Why are African American youth the most fearful of death and danger-related fears and the least afraid of family-related fears such as “my parents separating or getting a divorce?”; (c) Why are school fears higher for White American youth (Neal et al. 1993)?; and, (d) Why are Hispanic youth the most fearful of “being bullied” and “making mistakes” and conversely, the least fearful of “being poor?” As stated previously, are certain racial groups permitted to admit certain fears more openly than others (i.e., African American youth openly endorse animal fears, while White youth admit school-related fears)?

Another important finding was the prominence of fears related specifically to crime, robberies, guns, weapons, and violence (i.e., issues that presently impact American youth). Consistent with Burnham and Hooper’s (2008) findings, we believe that current-day dangers and threats (i.e., war, attempted terrorist attacks, violence) influence and concern youth. Overall, further exploration is indicated for each of the primary findings from this study with additional samples. Replication of the research findings is also warranted.

In the past, few researchers have examined the fears of African American and Hispanic youth, yet the increasing need to explore fear differences among racial minority populations has been underscored (Goh et al. 2007; Koskinen et al. 2000). Taken together, the exploratory findings from this study call for related investigations in the near future.

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