Quality of Life Among Asian American Youth

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Abstract

The aims of the present study were to examine whether Asian American youth experience disparities in quality of life (QL) compared with Hispanic, African American, and white youth in the general population and to what extent socioeconomic status (SES) mediates any disparities among these racial/ethnic groups. Data were obtained from the Healthy Passages study, in which 4,972 Asian American (148; 3%), Hispanic (1,813; 36%), African American (1,755; 35%), and white (1,256; 25%) fifth-graders were enrolled in a population-based, cross-sectional survey conducted in three U.S. metropolitan areas. Youth reported their own QL using the PedsQL and supplemental scales. Parents reported youth's overall health status as well as parent's education and household income level. Asian American youth experienced worse status than white youth for three of 10 QL and well-being measures, better status than Hispanic youth on six measures, and better status than African American youth on three measures. However, the observed advantages for Asian American youth over Hispanic and African American youth disappeared when the marked SES differences that are also present among these racial/ethnic groups were taken into

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account. In contrast, the differences between Asian American and white youth remained after adjusting for SES. These findings suggest that the disparities in QL that favor white youth over Asian American youth exist independent of SES and warrant further examination. In contrast, the QL differences that favor Asian American over Hispanic and African American youth may be partly explained by SES. Interpretations are limited by the heterogeneity existing among Asian Americans.

Keywords

Asian American; youth; disparities; quality of life; socioeconomic status

In the United States, Asian American children and adolescents are frequently referred to as the model minority (Ishii-Kuntz, Gomel, Tinsley, & Parke, 2010; Wong & Halgin, 2006; Yoo, Burrola, & Steger, 2010). However, this characterization may primarily reflect Asian Americans' educational achievements and physical health, which are better on average than other racial/ethnic groups (e.g., Bloom, Dey, & Freeman, 2006; Caplan, Choy, & Whitmore, 1991; Hsia, 1988; Yu & Vyas, 2009; Zhou, Peverly, Xin, Huang, & Wang, 2003). In terms of psychosocial health and well-being, Asian American youth, as a group, may not appear to be a model. Indeed, in many areas Asian American youth's psychosocial functioning is well below that of non-Hispanic white youth's and is in the range of Hispanic and non-Hispanic African American youth (Yeh et al., 2002).

Whereas studies have provided insights into specific aspects of Asian American youth's health (e.g., depression, social well-being, anxiety), there is no study we are aware of that informs about broadly construed health and well-being in the youth of this growing population group, which currently constitutes 5% of the U.S. population (Humes, Jones, & Ramirez, 2011). The World Health Organization (1948) defines health as "a complete state of physical, mental, and social well-being, not merely the absence of disease." Quality of life (QL) is an organizing concept that matches well this broad perspective on health and well-being. As applied to children and adolescents, it reflects an individual's wellness across multiple domains of life, including at a minimum physical, emotional, and social (Koot & Wallander, 2001). QL may also include information about their role functioning, for example in school and with family (Koot and Wallander (2001).

Current Knowledge on Quality of Life in Asian American Youth

QL has been used to examine the well-being of various groups of youth and adolescents in the population. To date, in the United States, QL research with children and adolescents that examines racial/ethnic disparities has focused on differences across the three largest racial/ethnic groups in the country (Olson, Lara, & Frintner, 2004), non-Hispanic Whites (63.7%), non-Hispanic African American (12.6%), and Hispanics (16.3%) (Humes et al., 2011). Although some QL studies have included Asian American youth in their samples (e.g., Cremeens, Eiser, & Blades, 2006; Varni, Limbers, & Burwinkle, 2007), there is no study we are aware of that has reported on the QL of this group specifically or disparities that may exist between Asian American youth and other groups. Research has been conducted, however, reporting differences between Asian American children adolescents and other

racial/ethnic groups in specific dimensions of the physical, emotional, and social domains usually constituting QL.

In the area of physical health, studies find Asian American youth generally healthier than their non-Asian peers in almost every measurement. For example, Asian American youth have lower morbidity rates than non-Hispanic whites (Yu & Vyas, 2009). They also have the highest rates of "no missed school days" in comparison with other racial/ethnic groups (Bloom et al., 2006). Asian American youth have lower rates of chronic and congenital diseases than non-Hispanic white youth (Yu & Vyas, 2009). In addition, data from the 2005 National Health Interview Survey indicate that parents of Asian American youth rate their health higher, with only 0.4% describing them as being of "fair or poor" health, in contrast to parents of non-Hispanic white (1.5%), non-Hispanic African American (3.3%), and Hispanic (3.2%) children (Bloom et al., 2006). In terms of weight class, Asian American adolescent girls report less than half the rates of obesity than non-Hispanic White girls (4% and 10%, respectively) (Wang & Beydoun, 2007).

In contrast to these positive findings in the physical domain for Asian American children and adolescents, other studies show that they experience substandard psychosocial health in comparison with other racial/ethnic groups (Chang, Morrissey, & Koplewicz, 1995; Onoda, 1977; Pang, 1991; Rhee, Chang, & Rhee, 2003). Higher rates have been reported among Asian American youth in depression (Centers for Disease Control & Prevention, 1995, 1997; Chang et al., 1995) and anxiety (Onoda, 1977; Pang, 1991), as well as lower self-esteem (Greene, Way, & Pahl, 2006; Rhee et al., 2003). High prevalences of fighting and suicidal ideation have also been reported among Asian American/Pacific Islander high school students (Grunbaum, Lowry, Kann, & Pateman, 2000). The literature finds high rates of anxiety, depression, and social stress among Chinese American adolescents in contrast to their non-Asian American peers (Zhou et al., 2003). In terms of social well-being, Asian American high school students report high rates of on-campus discrimination and harassment from their non-Hispanic African American and Hispanic peers (Rosenbloom & Way, 2004). Most of this research, however, has focused on adolescents (about 12–18 of age). There has been a dearth of research on younger children, especially just prior to the transition to adolescence.

Although the literature on Asian American youth presents findings suggestive of better physical and poorer psychosocial health, it also reports considerable variation in health within this group (Gong-Guy, 1987; Yu, Huang, & Singh, 2004). Asian Americans, although often treated as such, are not a homogeneous ethnic group. Most obvious is that their heritage is rooted in quite different regions and cultures, ranging from India and Pakistan to Korea and Japan and many different locations in between. In addition, Asian American youth may have very different levels of acculturation, ranging from those who were born and partially raised in their country of origin and who are still closely immersed in their home culture, to those whose families have resided in the United States for five generations or more and who are very much integrated into the majority U.S. culture. For these reasons, the diversity of Asian Americans challenges research. Even a large sample study would have to significantly oversample Asian Americans to be able to make even gross differentiations within this group.

Current Study

We acknowledge that the present study, like most others preceding it, is unable to make finer discriminations within the Asian American group, as desirable as that would be. Yet this study provides a distinct opportunity to examine QL broadly in a sizable sample of Asian American youth at an important specific point in development, in fifth grade toward the end of elementary school and prior to the transition to middle school. Therefore, this information can provide a baseline against which to illuminate changes that may occur during adolescence. We take advantage of the Healthy Passages project for this purpose, which is a prospective longitudinal cohort study tracking health risk indicators and their correlates in youth from 5th grade through 10th grade. This project was designed to examine disparities among Hispanic, non-Hispanic African American, and non-Hispanic white youth but did not exclude members of other ethnic groups in the catchment areas from enrolling. Thus this study enrolled Asian American youth in sufficient numbers to enable comparison of them to age peers from the other three major racial/ethnic groups. The rationale and methods of Healthy Passages are detailed elsewhere (Windle et al., 2004).

This study will thus examine Asian American youth's QL within the three core domains of wellness—physical, emotional, and social—plus the school domain. Wellness in the school domain is important because within this environment occur important interactions with both peers and nonfamilial figures of authority (teachers) as well as preparation for future productivity. To supplement information about QL and in light of previous findings on Asian American youth's psychosocial and physical functioning, we also examine youth's self-concept, social integration, and standard overall health status. We also examine possible race/ethnicity-by-gender interactions and adjust comparisons for socioeconomic differences that may exist among racial/ethnic groups. Thus with the specific aim to examine differences that may exist in QL between Asian American youth and their non-Asian peers, based on existing literature we expect that the Asian American youth will report physical QL in the range of the non-Hispanic white majority population. We further expect that this group will report psychosocial QL (emotional, social, and school domains) in the range of the Hispanic and non-Hispanic African American minority populations.

Method

Sample and Procedures

Data for the analysis are available at this time from Wave I of the Healthy Passages study (Windle et al., 2004), collected in 2004–2006. Recruitment into Healthy Passages was designed to enroll about equal representation of the three largest racial/ethnic groups in the U.S: Hispanic, non-Hispanic African American, and non-Hispanic white. Thus, participants were recruited from public schools in (1) 10 contiguous public school districts in and around Birmingham, Alabama, (2) 25 contiguous public school districts in Los Angeles County, California, and (3) the largest public school district in Houston, Texas. Eligible schools had an enrollment of at least 25 fifth-graders, representing more than 99% of students enrolled in regular classrooms in the three areas. Information was disseminated to the 5th grade students in the 118 selected schools, with 11,532 students, to bring to their parents (or caregivers). Permission to be contacted was returned by 6,663, of which 5,147 (77%) completed both a

parent and a child interview. However, enrollment was not limited to Hispanic, African American, and White children, resulting in 6% belonging to an "other" racial/ethnic group (see below for racial/ethnic classification). Among this group, 46% were classified as Asian American. Excluding all others resulted in 4,972 in the analysis sample, with an unweighted distribution based on Census-style classification of: Asian American = 3% (n = 148), Hispanic = 36% (1,813), non-Hispanic African American = 35% (1,755), and non-Hispanic white = 25% (1,256). Child age M = 11.12 (SD = .56), and 51% were boys. The Asian American group had an unweighted geographic distribution of Los Angeles = 49% (n = 72), Houston = 35% (n = 52), and Birmingham = 16% (n = 24) and included 12 youth identified as Native Hawaiian or Pacific Islander (NH/PI). Additional demographics appear in Table 1.

Procedures

This research was conducted in compliance with APA ethical standards in the treatment of participants and was approved by the Institutional Review Boards at the three study sites and the Centers for Disease Control and Prevention. Two trained interviewers administered the full Healthy Passages assessment protocol with the child and parent separated in private spaces at their home or a research facility using both computer-assisted personal interview and self-interview methods. The parent could choose whether material would be presented in English or Spanish. The following variables were used in this study.

Measures

Quality of life (QL) was measured with the self-report form of the Pediatric Quality of Life Inventory Version 4.0 (PedsQL; Varni, Seid, & Kurtin, 2001), a widely used, well-validated measure of QL in children and adolescents. For example, in a study involving 10,241 children and adolescents, including 1.204 Asian/Pacific Islanders (Varni, Burwinkle, Seid, & Skarr, 2003), the PedsQL demonstrated high construct validity, with healthy youth reporting significantly higher QL in all domains than chronically ill peers. After translation and validation, the PedsQL has been used to measure QL in at least 63 cultures outside the U.S, including more than 10 in South and East Asia. Results from these applications have yielded results consistent with theoretical expectations, thus supporting the construct validity of the instrument in a variety of cultures. The PedsQL provides six scores, including subscale scores for Physical (8 items, = .72 [all αs are reported for the current study sample]), Emotional (5 items, α= .71), Social (5 items, α = .76), and School (5 items, α = .66) QL as well as a composite Psychosocial QL (15 items, α= .84) score based on the last three subscales and a Total QL (23 items, α= .87) score based on all items. This hierarchical scale structure has been replicated across racial/ethnic groups, including 1,106 Asian American children and adolescents (Limbers, Newman, & Varni, 2009). Each item posits a certain behavior being a problem in the past month (e.g., Physical subscale: "it is hard for you to do sports activity or exercise"; Emotional subscale: "you feel afraid or scared"; Social subscale: "you have trouble getting along with other kids"; School subscale: "it is hard to pay attention in class"). Answers are reported on a five-point scale (0 = *never a problem*, 4 = *almost always a problem*), but scale scores are calculated such that a higher score indicates better QL.

These traditional QL measures were complemented by measures of subjective well-being. *Personal well-being* was measured with two subscales of the Self-Perception Profile (SPP) (Harter, 1983). The Global Self-Worth subscale (six items, α = .70) is a measure of general self-perception. Construct validity is supported by substantial differences in scores between healthy youth and those with depression and anxiety problems (Muris, Meesters, & Fijen, 2003). The Physical Appearance subscale (6 items, *a* = .65) is used to measure the child's satisfaction with his or her physical appearance, in contrast to the PedsQL Physical subscale, which is used to measure physical challenges and discomforts the child may be experiencing. Construct validity for the Physical Appearance subscale is supported for example by finding expected differences among obese, overweight, and normal weight youth (Wallander et al., 2009). These validity studies did not make any references to including Asian American youth. For both subscales, youth are asked for each item to identify which contrasting description best fits them (e.g., Global Self-Worth subscale; "some kids like the kind of person they are, other kids often wish they were someone else"; Physical Appearance subscale: "some kids wish their body was different, other kids like their body the way it is") and how much (*sort of true, really true*). Higher scores indicate better personal well-being.

Social well-being was measured with the Social Anxiety Scale for Children-Revised Fear of Negative Evaluation subscale (six items, α = .88), which focuses on issues of interpersonal sensitivity (e.g., "you worry about being teased"), using a five-point scale (1 = *not true at all*, 5 = *always true*) (La Greca & Lopez, 1998). This subscale has demonstrated convergent validity, with children with negative peer interactions reporting higher scores than their more confident and better socialized peers (Ginsburg, LA Greca, & Silverman, 1998). Although the larger U.S. ethnic groups were included, the sample did not include Asian American youth. We reversed the subscale score, such that a higher score indicated better social well-being.

Overall health status (OHS) was reported by the parent using the single item: "In general, would you say your child's health is …." with a five-point response scale (*excellent, very good, good, fair, poor*). An association has been demonstrated between parents' perception of their child's health status and actual health status (National Center for Health Statistics, 1972). Findings from the use of this item in numerous child health surveys with ethnically diverse samples, including Asian American youth, have been consistent with theoretical expectations and support its validity as a measure of OHS (Bauman, Silver, & Stein, 2006; Bramlett & Blumberg, 2007; Kohen et al., 2007). Herein higher scores indicate better health status.

For *race/ethnicity*, the parent was asked whether the child belongs to any of the following categories: American Indian/Alaskan Native, Asian, African American, Hispanic/Latino, Native Hawaiian/Pacific Islander, White, or other. Using Census categories, the child was classified as Hispanic if the parent indicated Hispanic ethnicity regardless of responses regarding race, and Asian and Native Hawaiian/Pacific Islanders were combined into the Asian American category. Youth not categorized as Hispanic were classified as African American, white, Asian American, or other, with the latter group being excluded from the analysis.

Because *socioeconomic status* (SES) is multifaceted (Chen, Martin, & Matthews, 2006), no single variable adequately captures this construct, especially for racial/ethnic minorities (Kauffman, Cooper, & McGee, 1997; Williams, 1999). An SES composite index was formed as the average of standardized parent reported highest level of education completed (six categories, treated linearly) and standardized household income transformed as percent of federal poverty level (continuous).

Data Analysis

All 10 scale scores used to measure QL well-being, and health were retained for the primary analysis, but to reduce the likelihood of spurious results resulting from correlated measures, a Bonferroni corrected significance level of $p < .005$ (.05/10) was used. These outcome variables were measured on continuous scales, with the exception of the five-point ordinal OHS scale, which was analyzed as linear. While descriptive information is provided for the outcome variables in their original measurement scales, standardized Z-scores ($M = 0.00$, $SD = 1.00$) were used for all analyses to enable comparisons across variables. All analyses were performed using SPSS Complex Sampling module with weighted data to adjust for the complex survey design, which included clustered sampling of schools with unequal probability to improve the ability to estimate racial/ethnic disparities. The distribution of all model residuals adequately conformed to the assumptions for the use of General Linear Model (GLM), which was applied to each outcome measure.

Possible differences within the Asian American subgroup were addressed first. Because NH/PIs can be argued to be culturally distinct from other Asian American groups (e.g., Mau, Sinclair, Saito, Baumhofer, & Kaholokula, 2009), preliminary analyses were conducted to ascertain possible differences between the NH/PI ($n = 12$) and the remaining Asian American ($n = 136$) youth. Differences were found on only Global Self-Worth, with Asian American youth reporting significantly higher than their NH/PI peers. The absence of within group differences on the nine remaining measures suggested that the within groups variance would likely be smaller than the variance between the four main racial/ethnic groups. Thus, analysis proceeded on the aggregated subgroup ($n = 148$), thereby maximizing statistical power.

In the first step, the model consisted of main effects for race/ethnicity (four categories) and gender (two categories) and their interaction. However, because no interaction reached significance ($p < .005$), the interaction term was dropped from the model and the analysis was repeated with just the main effects. The main effect for gender was retained in all models but is not of substantive interest and thus is not further addressed. In the second step, the GLM analysis included race/ethnicity and gender with adjustment for SES. Significant main effects for race/ethnicity were examined by comparing Asian Americans to each of the other three racial/ethnic groups, with Wald *F* tests with significance set at $p < .005$.

Results

Racial/Ethnic Disparities

Table 2 reports unadjusted descriptive statistics for the 10 outcome variables, and Table 3 shows results from the unadjusted and adjusted GLM models, The standardized unadjusted means for all outcomes by race/ethnicity are graphed in Figure 1. As seen in Table 3, there were significant unadjusted differences between racial/ethnic groups for all 10 outcome measures, with eight being significant for the Asian American group. The finding of larger between groups differences (eight) overall than differences within the Asian American group (one) supported the earlier decision to include the NH/PI youth in the Asian American subgroup. Post hoc analysis indicated that Asian American youth had better self-reported outcomes than Hispanic youth on six of the 10 outcome measures, with *ES* ranging from small to medium. Also, Asian American youth had better outcomes than African American youth on physical, social and school QL, with *ES* ranging from small to medium. Asian Americans had worse physical QL, global self-worth, and social well-being compared to white youth. Asian American youth also had worse social well-being than non-Hispanic African American youth.

Adjusting for SES Differences

Table 1 shows there are differences in SES among the racial/ethnic groups. As presented in Table 3, when adjusting for SES, four of the 10 statistically significant racial/ethnic disparities in the outcome measures identified in the unadjusted analysis disappeared. Of the eight measures that were significantly different among the Asian American group in the unadjusted analysis, all but three disappeared when adjusting for SES. Previous instances of Asian American youth having better outcomes than Hispanic and/or African American youth disappeared when adjusting for SES differences. However, Asian American youth continued to have worse physical QL, global self-worth, and social well-being than white youth and poorer social well-being than African American youth. The standardized SES-adjusted means for all outcomes by race/ethnicity are graphed in Figure 1.

Discussion

This study demonstrates that there are substantial racial/ethnic disparities in youth's QL. Asian American youth experienced worse status compared with white youth across three quite different domains of well-being—physical QL, global self-worth, social well-being—and experienced better status compared with Hispanic youth on six measures and African American youth on three measures. However the advantages for Asian American youth over Hispanic and African American youth disappeared when the marked socioeconomic differences that are also present among the racial/ethnic groups were taken into account. Thus the observed advantages attributed to Asian American youth may be largely attributable to their advantageous, on average, SES compared with other racial/ethnic minority groups. In contrast, the differences between Asian American and white youth remained after taking into account these socioeconomic differences. In sum, these findings suggest that the disparities that favor white youth over Asian American youth exist

independent of SES, in contrast to those that favor Asian American over Hispanic and African American youth, which may be explained by SES.

A theoretical rationale for the observed advantages attributed to Asian American youth can be found in the social gradient theory (Marmot, Rose, Shipley, & Hamilton, 1978). Foundational to much of disparities research, this theory articulates the positive and significant relationship between health and SES. Framed within this theory, the rationale for the observed advantages of Asian American youth over Hispanic and African American youth may be directly attributed to the socioeconomic differences between the groups, as evidenced by those advantages disappearing when SES is introduced into the model.

A rationale for why the disadvantages of Asian American youth compared with white youth did not disappear when the same differences between groups was taken into account poses a more complex question that requires further research focused on this question. One issue that may be considered is the universality of the QL construct (Koot & Wallander, 2001) and whether QL can be measured using the same instrument across cultures. We argue it is useful to do so for among other reasons to stimulate more focused research into QL of disparate groups of youth. For example, interesting research has followed the finding of cross-cultural differences in parent-reported behavior problems in children and adolescents (Verhulst & Achenbach, 1995). As noted in its description previously, the PedsQL has considerable psychometric support for its applicability in a variety of cultures. Yet subtle differences in response style and reporting biases may exist that contribute to between group differences and should be examined.

Our findings challenge findings from previous studies. We had expected Asian American youth to report physical QL in the range of the white youth. This was not the case, however, with the Asian American youth reporting poorer physical QL than the white youth in both the unadjusted and SES-adjusted models ($d = -0.28$ and -0.25, respectively). Unexpected, too, was that there was no disparity in emotional, social, or school QL between white and Asian American youth in either the unadjusted or SES-adjusted model. This was surprising because much of the literature (e.g., Rhee et al., 2003; Zhou et al., 2003) has suggested that Asian American youth experience deficits in both emotional and social areas. This discrepancy may be a result of our using a broad measure of functioning in these domains, whereas previous research has used more specific and focused measurements.

We did find, however, a disparity in some of our adjunct psychosocial measures that favored white over Asian American youth (global self-worth, social well-being) and African American over Asian American youth (social well-being) in both our unadjusted and SES-adjusted models. These findings are consistent with the current literature that reports deficits in psychosocial well-being among Asian American youth and adolescents. Future research might explore the relationship between these adjunct measures (global self-worth, social well-being) and our psychosocial QL measures among Asian American and non-Asian American youth.

Future research might also explore the influence of parent–child relationship—and more specifically, parental expectation—on Asian American youth's QL. While the literature

suggests that parental expectation of Asian American children can be overwhelming (Kibria, 1993) and is tied to increased risk of anxiety, depression, and low self-esteem (Park & Kim, 2006), there is no study that we know of that examines its influence on children's QL. Future research might explore this relationship both inside and outside the home. In light of this study's finding of low social well-being among Asian American youth, future research might explore the quality of friends and social circles among Asian American youth inside the school environment. Are there noticeable differences across racial/ethnic groups regarding social support for youth in the school environment? This could be especially pertinent in light of the high rates of on-campus harassment Asian American students report from their African American and Hispanic peers (Rosenbloom & Way, 2004).

Among limitations in this research, first is the relatively small size of the sample of Asian Americans here. Findings from this study are therefore best viewed as preliminary and stimulation for further research. Moreover, as with the 2003–2004 National Survey of Children's Health (Kogan & Newacheck, 2007) and the 2001–2004 National Health and Nutrition Examination Survey (Braun et al., 2008), our study had no survey materials for non-English or non-Spanish speaking families. Hence, the least acculturated families of the pool were likely excluded from participation based on low proficiency of English. Another limitation of the study is its aggregation of ethnically and culturally diverse groups into the entity we call "Asian American." Studies (e.g., Barnes, Adams, & Powell-Griner, 2008) show that there is sizable variation in many aspects of health among Chinese, Filipino, Asian Indian, Japanese, Vietnamese, and Korean groups, yet like most survey studies we were unable to disaggregate this group. Another possible influence on QL and health not examined in our study is acculturation. As a moderating and mediating variable, acculturation is influential in affecting children's health. An example is the inverse relationship between acculturation and healthy weight class among children and adolescents, with each successive generation more at risk for obesity (Popkin & Udry, 1998). It should be valuable to examine QL in relation to acculturation in future research. Finally, whereas considerable support for the validity of the PedsQL and equivalence of the measurement structure in different cultures exist already, future research would do well to continue to examine the use of this and related measures across cultures.

This study is the first we know of to examine differences between Asian American and non-Asian youth in broadly conceptualized QL, while accounting for socioeconomic contextual factors. These types of measures may describe the health and well-being of children and adolescents in the general population more comprehensively than conventional mortality and morbidity measures and provide better identification of unrecognized conditions, social and emotional problems, and poor functioning (Koot & Wallander, 2001; Szilagyi & Schor, 1998).

The March 2011 U.S. Census Brief (Humes et al., 2011) reports that in the decade between 2000 and 2010 the Asian population in the United States "experienced the fastest rate of growth" of any racial/ethnic group. In light of these statistics, it will serve the children of this group and our population as a whole to better understand the challenges of health and well-being of Asian American children.

Acknowledgments

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Figure 1.
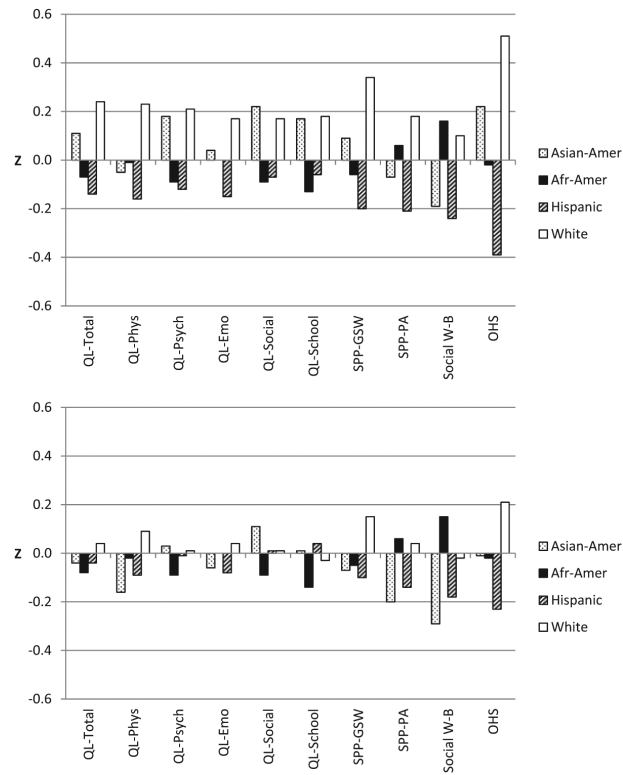Z-score transformed means for outcome measures across race/ethnicity. Upper panel, Unadjusted means; Lower panel, Adjusted means. Higher values indicate better outcome on all variables; SES used as a covariate in adjusted model. QL, quality of life; Psych, Psychosocial; Emo, Emotional; SPP, Self-Perception Profile; GSW, Global-Self-Worth; PA, Physical Appearance; W-B, Well-being; OHS, overall health status.

Table 1

Sample Demographics

	Total analysis sample (*n* = 4,972)		Asian American (*n* = 148)	African American (*n* = 1,755)	Hispanic (*n* = 1,813)	White (*n* = 1,256)
	Raw *n*	Wtd %	Wtd %	Wtd %	Wtd %	Wtd %
Highest education by parent						
<9th grade	678	18	0	2	39	0
Some high school	538	13	1	12	18	4
High school graduate	956	21	14	31	19	11
Some college or 2-yr. degree	1,298	24	20	37	17	23
Bachelor degree	800	14	30	13	5	35
>Bachelor degree	589	10	35	6	2	27
Household income as % FPL						
<100%	1,559	38	15	47	50	7
100–199%	999	23	27	25	28	11
200–299%	616	13	10	14	12	13
300–399%	354	7	13	6	4	15
400–499%	338	6	16	4	3	15
500%	709	13	19	5	3	40
Youth's generational status						
Born in United States	4,490	90	71	99	81	97
Born outside United States	450	10	29	1	19	3
Caregiver's generational status						
Born in United States	3,262	60	18	96	22	93
Born outside United States	1,677	40	82	4	78	7
Household size (Mdn)	—	4	4	4	5	4
Family structure						
Two biological parents	2,284	48	66	21	57	65
Other	2,652	52	35	79	43	35
English spoken in home (if no, self-rated proficiency level)						
Yes	3,000	54	18	96	10	91
No/Very well	526	11	32	3	17	5
No/Well	389	9	39	1	16	4
No/Not well	696	18	11	0	39	0
No/Not at all	321	9	0	0	20	0

Note. Sample constituted by Asian American, African American, Hispanic, or White participants in Healthy Passages Wave 1; *n* = 4,972 (unweighted cases); % is calculated with weights to reflect sampling. FPL = Federal Poverty Level.

Table 2

Unadjusted Means (SE) for Outcome Variables

Outcome measure	Score range	Total analysis sample	Asian American	African American	Hispanic	White
Quality of life						
Total	0–100	78.28 (.323)	79.35 (.844)	76.89 (.444)	75.88 (.447)	81.01 (.561)
Physical	0–100	84.23 (.283)	83.56 (.748)	84.04 (.409)	81.95 (.469)	87.39 (.400)
Psychosocial	0–100	75.11 (.389)	77.11 (1.050)	73.08 (.528)	72.65 (.478)	77.60 (.700)
Emotional	0–100	70.70 (.489)	71.23 (1.479)	70.37 (.626)	67.52 (.584)	73.67 (.805)
Social	0–100	79.45 (.500)	82.61 (1.407)	76.64 (.656)	76.96 (.602)	81.59 (.824)
School	0–100	75.18 (.432)	77.47 (1.137)	72.23 (.581)	73.47 (.518)	77.54 (.806)
Personal well-being						
Global self worth	6–24	19.53 (.083)	19.70 (.246)	19.15 (.105)	18.61 (.144)	20.66 (.125)
Physical appearance	6–24	17.80 (.119)	17.57 (.384)	18.08 (.104)	17.00 (.141)	18.56 (.196)
Social well-being	6–30	22.61 (.140)	21.76 (.488)	23.77 (.164)	21.44 (.214)	23.46 (.162)
Overall health status	1–5	4.07 (.027)	4.21 (.098)	3.97 (.029)	3.59 (.037)	4.51 (.033)

Note. Sample constituted by Asian American, African American, Hispanic, or White participants in Healthy Passages Wave 1; $n = 4,972$ (unweighted cases). Higher values indicate better outcome on all variables.

Table 3

Disparities in Quality of Life, Well-Being, and Health Associated With Race/Ethnicity

Outcome measure	Unadjusted main effects Race/Ethnicity Wald F	SES adjusted main effects Race/Ethnicity Wald F
Quality of life		
Total	20.02[**] AS > H	—
Physical	27.96[**] W > AS	6.54[**] W > AS
Psychosocial	15.66[**] AS > AA, H	—
Emotional	12.97[**] (n.s.)	—
Social	12.21[**] AS > H, AA	—
School	15.02[**] AS > H, AA	5.97[*] (n.s.)
Personal well-being		
Global self worth	45.59[**] W > AS > H	9.21[**] W > AS
Physical appearance	17.66[**] (n.s.)	7.96[**] (n.s.)
Social well-being	35.30[**] AA, W > AS	28.67[**] AA, W > AS
Overall health status	128.84[**] AS > H	38.68[**] (n.s.)

Note. Only significant results are reported; significant ($p < .005$) post hoc group differences are reported in reference to Asian American group; n.s., post hoc difference not significant as referenced to Asian American group; > indicates better outcome; W = White (non-Hispanic); AS = Asian American; AA = African American (non-Hispanic); H = Hispanic.

[*] $p < .005$.

[**] $p < .001$.