Race, Flourishing, and All-Cause Mortality in the United States, 1995–2016

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Running head: Race, Flourishing, and All-Cause Mortality

Abstract

This study assessed whether race moderates the association between flourishing and all-cause mortality. We used panel data from the Midlife in the United States Study (MIDUS) (1995–2016) (n = 2851). Approximately 19% of White respondents and 23% of Black respondents of the baseline sample died over the course of the 21-year study period (n = 564). Cox proportional hazard models showed that Blacks had a higher mortality rate relative to Whites and higher levels of flourishing were associated with a lower mortality rate. Furthermore, a significant interaction between flourishing and race in predicting mortality was observed. Blacks with higher levels of flourishing had a mortality rate that was not significantly different from Whites. However, Blacks, but not Whites, with low flourishing scores had a higher mortality rate. As such, health promotion efforts focused on enhancing flourishing among Black populations may reduce the Black-White gap in mortality.

Keywords: race; flourishing; mortality; health disparities

Abbreviations:

BMI Body Mass Index

CI Confidence Interval

HR Hazard Ratio

MIDUS Midlife in the United States Study

RERI Relative Excess Risk due to Interaction

The Black-White gap in life expectancy is stark. In 2017, the life expectancy at birth was 75.6 years for Blacks and 78.5 years for Whites, a difference of 3.6 years (1). In addition, racial disparities in mortality persist through much of the life course, with Black Americans experiencing higher rates of mortality than White Americans at nearly every age (2). Investigations into the causes of these differences have primarily focused on the role of socioeconomic (3), behavioral (4), or biomedical (5) risk factors, with much less attention paid to the role that psychosocial resources may play in shaping Black-White differences in mortality. This is an important omission, because psychosocial resources have the potential to protect against or help individuals cope with the noxious health consequences associated with being a member of a racial minority group (e.g., discrimination, social inequality) (6, 7). Indeed, some research has found that psychosocial resources can have a positive impact on longevity across the lifespan that is similar to the impact of diet and behavioral indicators such as smoking and alcohol consumption (8, 9, 10).

Growing evidence link psychosocial resources, such as flourishing, to mortality (11). Flourishing is a multidimensional construct of well-being that integrates psychological, emotional, and social domains of well-being to capture complete mental health, that is the ability to both feel good and function well in life (11, 12). The World Health Organization (13(p12)) has defined complete mental health as "a state of well-being enabling individuals to realize their abilities, cope with the normal stresses of life, work productively and fruitfully and make contributions to their community." It has been argued that flourishing should be promoted because it is a means to a better, more productive, and healthy life (14). Several mechanisms have been proposed to delineate how flourishing "gets under the skin" to influence health. For instance, flourishing may protect health by promoting restorative health behaviours (e.g.,

physical activity, restful sleep, healthful food consumption) as well as by supporting more positive biological function (e.g. greater parasympathetic control, regulation of autonomic nervous system, lower levels of inflammation) (15). Moreover, individuals who are flourishing have lower prevalence of mood and anxiety disorders (16), chronic physical disease, health limitations of instrumental activities of daily living (IADLs) (12), and all-cause mortality at all ages (11). For example, Keyes and Simoes (11) found that adults who were flourishing had 62% lower odds of mortality at a 10-year follow-up relative to adults who were not flourishing. However, questions remain about whether the association between flourishing and mortality differs by race.

We draw on two contrasting perspectives derived from existing work to situate race as a moderator of the flourishing and mortality association. The first perspective posits that psychosocial resources will be more beneficial for groups who have fewer alternative resources and worse socioeconomic conditions (17). If this is the case, then higher levels of flourishing will be more protective of mortality for Blacks than for Whites due to that fact that Black Americans are disproportionately exposed to social conditions that deplete psychosocial resources, including poverty, residential segregation, neighborhood insecurity, and racism (18). Consistent with this view, some studies have found that religious attendance more strongly predicts lower mortality rates for Blacks than for Whites (19). For Whites, access to higher levels of psychosocial resources, like social support and sense of control (20, 21), as well as socioeconomic resources (22) may make any one resource, such as flourishing, less critical for health. In this view, the association between higher levels of flourishing and mortality will be greater for Blacks than for Whites, because they have fewer alternative resources to call on to protect their health.

In contrast, a second perspective suggests that higher levels of flourishing will be less beneficial for Blacks and more salutary for Whites. There is some evidence that psychosocial resources, such as sense of control over one's life and general self-efficacy, reduce the risk of all-cause mortality for Whites, but not Blacks (23, 24). These studies suggest that Blacks receive fewer health benefits than Whites from the same psychosocial resource. Thus the utility of flourishing, or any psychosocial resource, for racial minorities may be undermined by structural disadvantages that potentially offset the positive impact of a resource (25). This perspective implies that the Black-White gap in mortality will increase, as flourishing increases.

We used the National Survey of Midlife Development in the United States (MIDUS) cohort study (1995-2016) to examine the relationship between race, flourishing, and all-cause mortality. This is the first study, to our knowledge, to determine whether race moderates the flourishing-mortality association. We discuss the implications of this research for policy and highlight the importance of considering the role that psychosocial resources play in the Black-White patterning of mortality in U.S. society.

METHODS

We used data from MIDUS, a sample of 3032 English-speaking, non-institutionalized adults who were 25 to 74 years of age when the study was launched in 1995 (Wave 1). Follow-up waves were conducted both in 2004-2006 (MIDUS II) and 2013-2014 (MIDUS III), with high retention rates (e.g., 77% of living participants responded to the MIDUS III telephone survey). Analyses used the MIDUS sampling weights to adjust for selection probabilities and nonresponse to ensure that the sample is representative of the U.S. population. In the current analyses, we selected only respondents identifying as Black or White who had valid mortality data, resulting in a sample of 2851 individuals, of which 92% were White (N = 2622), and 8%

were Black (N = 229). (Note that the unweighted MIDUS sample slightly underrepresents Blacks).

Measures

We examined time to death (measured in *months*) as our dependent variable. MIDUS respondents from the baseline survey were linked to the 2016 National Death Index (NDI), the most recent mortality records available. Only all-cause mortality records were available in the NDI data linked to MIDUS respondents.

Following Keyes' definition (26), composite flourishing was assessed with the components of emotional, psychological, and social well-being. Although there are multiple ways to measure flourishing (27, 28), we opted to use Keyes' measure of flourishing because it is an established scale for measuring flourishing, well-validated, and has good psychometric properties (29). All components of flourishing were measured at Wave 1 of MIDUS in our study. We follow a procedure developed by Chen and colleagues (30) to create a continuous measure of flourishing. Past research has tended to rely on a binary indicator of flourishing based on being in the top tertile of the sample in flourishing (11). However, due to the potential limitations of using researcher-determined thresholds (e.g., top tertile split), we employed a continuous measure of flourishing in order to capture its full distribution in the population. Prior research suggests evidence of a dose-response relationship between flourishing and mortality (11), supporting its treatment as a continuous measure in the current study.

The first component of the flourishing score was emotional well-being. Two aspects of emotional well-being were measured (11): a 6-item validated positive affect scale and a 1-item measure of life satisfaction was used. An overall emotional well-being score ($\alpha = 0.72$) was calculated by summing the standardized positive affect and life satisfaction scores.

Psychological well-being was assessed with Ryff's validated 18-item scale (31). The scale measured 6 dimensions of subjective well-being, including self-acceptance, positive relations with others, personal growth, purpose in life, environmental mastery, and autonomy ($\alpha = 0.71$).

Finally, social well-being was measured with Keyes' validated 15-item scale (32). The scale assessed 5 dimensions of social functioning including social acceptance, social actualization, social contribution, social coherence, and social integration. An overall social well-being score ($\alpha = 0.74$) was calculated by summing scores on all five subscales.

An overall flourishing scale was then created by summing the standardized emotional, psychological, and social well-being scores. In our sample, flourishing scores range from -12.84 to 5.31. A full list of all scale items comprising our measure of flourishing can be found in the Web Appendix.

We dichotomized race as Black or White.

We controlled for several demographic variables, measured at Wave 1 of MIDUS. We included the respondent's age (in years) and age^2 to model the non-linear relationship between age and mortality. We also adjusted for gender (male and female), marital status (married/ marriage-like partnership and other) and education (< high school degree, high school degree or equivalent, some college, and university degree or higher). Analyses also feature a measure of household income, adjusted for the number of adults aged 18 and over in the household. To adjust for the non-normality of the income variable, we categorized the household-size adjusted income into quintiles.

Analyses also adjusted for a series of health conditions and health behaviors that could confound the relationship between race, flourishing, and mortality. First, we adjusted for several

self-reported health conditions by including a dichotomous indicator to denote whether the respondent had experienced high blood pressure, lung problems, heart problems, stroke, diabetes, and cancer (except skin cancer, which is typically non-lethal). These are considered "serious" health conditions (33) and present the most acute risk of death. We also adjusted for respondents' body mass index (BMI) (defined as underweight (BMI < 18.5), normal weight (18.5 ≤ BMI < 25), overweight (25 ≤ BMI < 30), obese class I (30 ≤ BMI < 35), obese class II (35 ≤ BMI < 40), and obese class III (BMI ≥ 40)). Second, we included measures of health behaviors. We included 2 measures of cigarette smoking behavior (i.e., former smoker vs. never smoked and current smoker vs. never smoked). We also included a measure of self-reported monthly frequency of moderate or vigorous exercise (range = 0-27 days). Finally, we adjusted for sleep problems. Respondents were asked, "During the past 30 days, how often have you had trouble getting to sleep or staying asleep?" (categorical: not at all, once a month, several times a month, once a week, several times a week, and almost every day).

Statistical analysis

We conducted a series of Cox proportional hazard models on an analytic sample of 2851 cases. Approximately 20% of the baseline sample died over the course of the 21-year study period (n = 564), leaving 2287 respondents censored.

Our Cox proportional hazards models employed multiple imputation using chained equations (MICE) to deal with missing data (34), where 50 imputed datasets were created. This procedure yielded 2851 cases for analysis. Results were also consistent using the listwise deletion method of handling missing data. To verify the proportional hazards assumption of Cox regression, Schoenfeld residuals were used (35). This test was non-significant ($p > .05$), yielding no evidence that the proportional hazards assumption was violated.

RESULTS

Table 1 presents a comparative overview of the sample characteristics by race. Approximately 19% of White respondents and 23% of Black respondents died over the study period, suggesting a slightly higher likelihood of Blacks dying before the end of the study period. Moreover, we found expected heterogeneity in flourishing scores by race: Whites had a mean flourishing score of 0.10 (SD = 2.25), while Blacks had a significantly lower mean flourishing score of 0.002 (SD = 2.39).

Table 2 presents the hazard models for race, flourishing, and all-cause mortality. Model 1 was the baseline model showing the association between race and flourishing on mortality, adjusting only for demographic covariates. In general, Blacks had a higher mortality rate relative to Whites (HR = 1.16, 95% CI: 1.03, 1.29), and those with higher flourishing scores reported a lower mortality rate (HR = 0.94, 95% CI: 0.90, 0.99).

Model 2 retained all covariates from Model 1 but added in health covariates (chronic disease diagnoses and health behaviors). However, the adjustment for a host of serious health conditions, and both positive and negative health behaviors (e.g., smoking, exercise) did little to change the hazard ratio between race and mortality or flourishing and mortality. Blacks continued to have a higher mortality rate relative to Whites (HR = 1.20, 95% CI: 1.05, 1.35), and higher flourishing scores were again linked with a lower mortality rate (HR = 0.95, 95% CI: 0.92, 0.98).

Finally, Model 3 considered the interaction between flourishing and race. The significant interaction term indicates that the association between flourishing and mortality is greater among Blacks compared to Whites (HR = 0.83, 95% CI: 0.72, 0.95). There was no strong evidence of the relationship between flourishing and mortality for Whites (HR = 0.98, 95% CI: 0.93, 1.02).

(These findings were replicated in supplementary analyses (not shown) that were stratified by race. In addition, we also tested whether a flourishing x race interaction was significant in Models 1 and Models 2. Results indicated that the flourishing x race interaction was significant across all models.) These associations are seen more clearly in Figure 1, which presents a series of hazard curves depicting the relationship between race, flourishing, and mortality. We used two different cut-points to determine "high" vs "low" flourishing: the mean (Panel A) and 1 standard deviation above the mean (Panel B), adjusting for the full range of study covariates.

Figure 1 plots time to death as a function of months. Panels A and B show that Blacks with low flourishing scores had the highest mortality rate over time. Yet, Blacks with high flourishing had a mortality rate that was not significantly different than Whites. Post-hoc pairwise comparisons of hazard ratios revealed that Blacks who had flourishing scores that fell 1 standard deviation above the sample mean had a mortality rate that was indistinguishable from those of Whites ($p > .05$). In contrast, Whites had a similar mortality rate regardless of level of flourishing.

We tested for an interaction on the additive scale as defined by Rothman (36) for calculating the relative excess risk due to interaction (RERI) using the methods outlined by Andersson et al. (37) and Knol and VanderWeele (38). We tested the additive interaction of two categorical variables (Blacks and Whites) and flourishing (high vs. low, with +1 SD above the mean used to denote high vs. low flourishing), with controls in the model, but on our unweighted MIDUS sample because weights are not yet supported in this method. RERI and the associated 95% CIs were computed by the delta method, yielding the following results: RERI = -0.58, p = 0.0467, 95% CI: -1.16, -0.01. A negative RERI value indicates a greater impact of high flourishing for Blacks in reducing mortality risk compared to Whites. The value of -0.58 refers to

an absolute risk difference; this suggests that the relative risk of death in Blacks with high levels of flourishing compared to Whites is 0.58 less than if there were no interaction.

We performed a series of robustness and sensitivity tests. First, a dichotomized measure of flourishing was created following Keyes' initial criteria (11). To be characterized as flourishing, participants need to show high levels (i.e., top tertile) of emotional well-being on at least 1 of the 2 subscales (i.e., positive affect or life satisfaction) as well as high levels (i.e., top tertile) of psychological and social well-being on at least 6 of the 11 subscales (e.g., self-acceptance, social integration). Similar to what Keyes and Simoes (11) found with the MIDUS data, 18% of our sample met the criteria for flourishing. Second, to better capture functioning across all subdomains, we also created a count measure of flourishing that summed the number of subscales on which the participant had a score in the top tertile, ranging from 0 to 13 (30). The main pattern of results reported above replicated with both alternative measures of flourishing. Full results for these analyses can be found in Web Table 1 and Web Table 2. Additional analyses (not shown) also considered each component scale of flourishing separately, and results remained the same. This suggests that patterns observed and reported in the current study are not driven by 1 or 2 flourishing subscales.

DISCUSSION

This study provides new evidence of the additive and interactive relationship between race and flourishing on all-cause mortality. Our results support 3 key conclusions. First, we were able to reproduce the previously observed association between flourishing and mortality in a more recent MIDUS sample (11). Higher levels of flourishing were associated with lower rates of all-cause mortality. Second, we found that Blacks generally have lower levels of flourishing than Whites. Yet, despite this overall disadvantage, high levels of flourishing were protective for

Blacks, and not for Whites. Thus, our third key finding was that the association between flourishing and mortality was moderated by race. The racial gap in mortality became non-significant among persons with high levels of flourishing. In other words, Blacks with high levels of flourishing had the same rate of mortality as Whites.

The beneficial impact of high levels of flourishing on mortality for Blacks, but not Whites, may be attributable to the fact that Blacks have fewer alternative socioeconomic resources, such as power, authority, and earnings to draw on than Whites, resulting in flourishing being especially protective against mortality for Blacks. From this perspective, flourishing substitutes for the lack of other health protective resources, which makes Blacks depend more heavily on flourishing than Whites. As such, high levels of flourishing may be one way that Blacks can compensate for some of the disadvantages associated with being Black in America. However, it is also important to note that Blacks with low levels of flourishing experience higher rates of mortality than Whites for the very reason that they have fewer resources to call on to protect their health, making flourishing a particularly important resource for Black Americans.

The strengths of this study include the longitudinal design, the duration of the follow-up (21-years), and the examination of mortality, an objective outcome that is not biased by self-reports. However, this study was not without limitations. First, though the MIDUS data usefully linked respondents to national death records, we were unable to identify the specific causes of death. Thus, we could not test whether the relationship between race and flourishing persists regardless of the cause of death (e.g., disease type versus natural causes). Second, the MIDUS consists of a small sample of Blacks (n = 220), with approximately 51 Blacks dying over the study period, which limits our ability to draw definitive conclusions from our analyses. As such, future research should seek to replicate our analyses in a larger sample of Blacks.

Although the Black-White gap in mortality has narrowed in the U.S., higher rates of mortality among Blacks compared to Whites has been characterized as a public health priority (39), in part because there is a general consensus that such inequalities are preventable (40). In the current study, we found that high levels of flourishing were protective of mortality for Blacks, but not for Whites. As such, promotion efforts should aim to develop flourishing among Blacks, especially Blacks that exhibit noticeably low levels of flourishing. Moreover, results from supplementary analyses indicate that emotional and social well-being are particularly important determinants of mortality. As such, interventions should especially focus on emotional and social well-being, although we believe that in order to flourish that emotional, social, and psychological well-being are necessary. While the development of flourishing among at-risk populations may provide one approach to help reduce racial disparities in mortality, it is likely that a focus on individual-level interventions to enhance flourishing may not be sufficient to fully protect against the negative impact of social and economic hardship (41). As such, more research is needed to identify the modifiable conditions that produce flourishing in the first place, and at what stage of the life course they may best be implemented. Some evidence has indicated that employment (30), education (30), and income (30, 42) are particularly important determinants of flourishing, suggesting that programs that target the social determinants of health may increase flourishing in at-risk populations. Moreover, policy interventions that aim to reduce or eliminate social closures, where one group monopolizes valued resources by closing off opportunities to another group, have the potential to promote well-being (43, 44). Examples include enforcing laws that prohibit discriminatory practices that prevent Blacks from moving into White neighborhoods or changing admissions practices that allow Blacks greater access into prestigious universities. More research should investigate how reducing social closure inequalities may lead

to enhancing flourishing in Black communities. Taken together, individual health promotion efforts to enhance flourishing among Black populations should occur alongside national policies aimed at addressing the social determinants of health, which may also decrease Black-White differences in mortality.

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Data Availability: The data we used is publicly available through the Inter-university Consortium for Political and Social Research (ICPSR website, https://www.icpsr.umich.edu/icpsrweb/ICPSR/series/203).

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Table 1. Sample Descriptive Statistics, by Race: Midlife in the United States Study, 1995-2016

Variables	**Total Sample (N = 2851)**				**White (N =**		**Black (N = 229)**		***t or*** χ^2
	Range	Mean (SD)[a]	No.	% Missin	Mean (SD)	No.	Mean (SD)	No.	(*P*-value)
Flourishing (standardized)	-12.84,	0.01 (2.38)	2851	0%	0.10 (2.25)	262	0.002	229	<.001
Demographic Covariates									
Age	21-75	48.11	2821	<1%	48.24	260	46.25	220	<.001
Gender (Male = 1)		0.48		0%	0.49	128	0.38	87	<.01
Adulthood Achieved									
Married		0.64	1825	<1%	0.66	172	0.48(102)	102	<.001
Education				<1%					
< high school		0.09	264		0.09	228	0.17(36)	36	<.001
High school or equivalent		0.30	828		0.29	770	0.27(58)	58	
Some college education		0.31	891		0.31	822	0.33(69)	69	
University degree or		0.30	851		0.31	802	0.23(49)	49	
Household Income									
Quintile 1 ($0-$22,500)		0.20	536		0.18	448	0.44(88)	88	<.001
Quintile 2 ($22,501-		0.20	557		0.20	524	0.16(33)	33	
Quintile 3 ($40,501-		0.20	551		0.21	526	0.12(25)	25	
Quantile 4 ($64,501-		0.20	554		0.21	528	0.13(26)	26	
Quintile 5 ($111,501-		0.20	564		0.21	535	0.14(29)	29	
Health Conditions									
Cancer		0.01	27	<1%	0.05	26	0.07	1	.46
Heart problems		0.13	348	<1%	0.13	327	0.10	21	.26
Lung problems		0.15	430	<1%	0.15	401	0.14	29	.63
Diabetes		0.06	149	<1%	0.05	130	0.09	19	.01
Stroke		0.01	29	<1%	0.01	26	0.01	3	.54
BMI				<1%					
Underweight		0.02	60		0.02	59	0.01	10	<.001
Normal weight		0.37			0.38		0.25	44	
Overweight		0.35	1001		0.35	927	0.35	74	
Obese class I		0.14	397		0.14	359	0.18	38	
Obese class II		0.04	127		0.04	113	0.06	14	

Obese class III		0.07			0.06	166	0.14	31	
Health Behaviors									
Former Smoker		0.31	877	<1%	0.31	820	0.27	57	.18
Current Smoker		0.23	646	<1%	0.23	606	0.19	40	.04
Exercise Frequency	0-27	14.61	2842	<1%	15.23(8.66)	262	11.58(8.47)	220	<.001
Sleep Problems				1.8%					.09
Not at all		0.47	1323		0.47	120	0.56	116	
Once a month		0.14	404		0.15	380	0.12	24	
Several times a month		0.15	415		0.15	386	0.14	29	
Once a week		0.05	151		0.06	146	0.02	5	
Several times a week		0.11	316		0.11	297	0.09	19	
Almost every day		0.07	192		0.07	178	0.07	14	

Abbreviations: BMI, body mass index; SD, standard deviation.

[a] Values are expressed as standard deviations.

Table 2. Cox Proportional Hazard Models Predicting Mortality: Midlife in the United States Study (n = 2851), 1995-2016

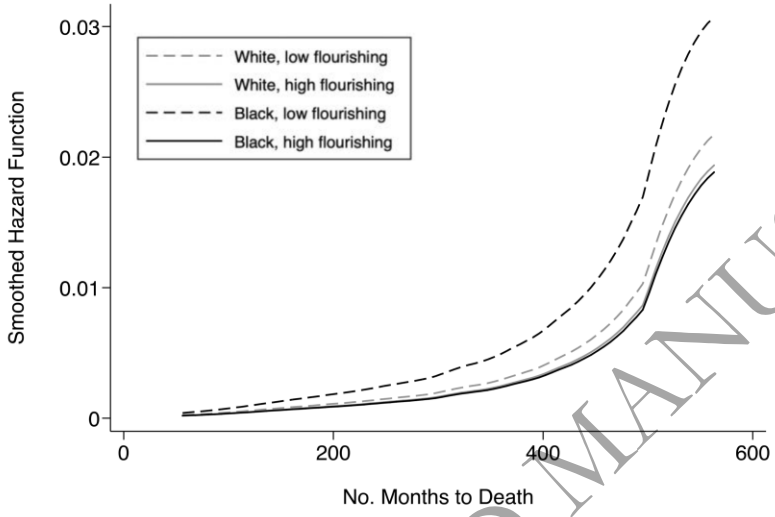
	Model 1		Model 2		Model 3	
	HR	**95% CI**	**HR**	**95% CI**	**HR**	**95% CI**
Flourishing (Standardized)	0.94[a]	0.90, 0.99	0.95[a]	0.92, 0.98	0.98	0.93, 1.02
Black	1.16[a]	1.03, 1.29	1.20[a]	1.05, 1.35	1.16	0.88, 1.54
Flourishing X Black					0.83[b]	0.72, 0.95
Demographic Covariates						
Age	1.07[a]	1.00, 1.16	1.03	0.96, 1.10	1.05	0.97, 1.11
Age^2	1.00	0.99, 1.00	1.00	0.99, 1.00	1.00	0.99, 1.00
Gender (Male = 1)	1.21	0.97, 1.50	1.28[a]	1.03, 1.60	1.31[a]	1.05, 1.62
Married	0.87	0.71, 1.08	0.94	0.75, 1.16	0.94	0.76, 1.16
Education						
High school or equivalent	0.93	0.68, 1.26	0.97	0.72, 1.31	0.94	0.71, 1.26
Some college education	1.01	0.74, 1.37	0.99	0.72, 1.36	0.96	0.71, 1.30
University degree or higher	0.88	0.65, 1.19	0.97	0.70, 1.35	0.91	0.66, 1.25
Household Income						
Quintile 2	0.70[a]	0.52, 0.95	0.75	0.55, 1.02	0.77	0.57, 1.05
Quintile 3	0.59[c]	0.44, 0.80	0.59[c]	0.44, 0.81	0.62[c]	0.45, 0.84
Quintile 4	0.73	0.52, 1.02	0.75	0.56, 1.02	0.78	0.58, 1.04
Quintile 5	0.65[c]	0.49, 0.86	0.72[a]	0.53, 0.97	0.75	0.56, 1.02
Health Conditions						
Had cancer			1.08	0.43, 2.64	1.07	0.46, 2.46
High blood pressure			1.35[c]	1.09, 1.68	1.37[c]	1.10, 1.70
Heart problems			1.78[b]	1.42, 2.22	1.77[b]	1.42, 2.22
Lung problems			1.06	0.81, 1.39	1.08	0.82, 1.41

Diabetes	1.35[a]	1.02, 1.79	1.35[a]	1.02, 1.80
Stroke	1.22	0.73, 2.01	1.22	0.73, 2.02
Underweight	2.42[c]	1.34, 4.40	2.54[b]	1.40, 4.60
Overweight	0.81	0.63, 1.03	0.82	0.65, 1.05
Obese class I	1.03	0.76, 1.40	1.03	0.76, 1.40
Obese class II	1.15	0.72, 1.84	1.09	0.68, 1.74
Obese class III	0.92	0.64, 1.34	0.94	0.65, 1.37
Health Behaviors				
Former Smoker	0.95	0.74, 1.39	0.93	0.73, 1.20
Current Smoker	1.44[c]	1.10, 1.89	1.46[c]	1.08, 1.79
Exercise Frequency (days)	0.98[b]	0.97, 0.99	0.98[b]	1.12, 1.89
Sleep Problems				
Once a month	1.01	0.73, 1.39	0.96	0.70, 1.32
Several times a month	1.21	0.91, 1.61	1.17	0.89, 1.55
Once a week	1.27	0.63, 2.56	1.26	0.64, 2.49
Several times a week	0.79	0.58, 1.08	0.77	0.56, 1.05
Almost every day	1.00	0.69, 1.45	0.97	0.67, 1.40

Abbreviations: HR, hazard ratio; CI, confidence interval; BMI, body mass index.
[a]$P < 0.05$. [b]$P < 0.001$. [c]$P < 0.01$.

Figure 1. Hazard curves by race predicting A) months to death using the mean level of flourishing to distinguish high vs. low flourishing B) months to death using 1 SD above the mean level of flourishing to distinguish high vs. low flourishing: Midlife in the United States Study, 1995-2016.

A



B