Antecedents of Rowe and Kahn's Successful Aging Model for Asian Americans

Frederick T. L. Leong, William J. Chopik, Ajay V. Somaraju, and Sarah Kuang
Department of Psychology, Michigan State University

The present study evaluated the antecedents of the successful aging model for Asian Americans. Current knowledge on Asian American aging is minimal, and research suggests many reasons to expect aging for Asian Americans to be different from what is often proposed in Eurocentric models of aging. However, due to a lack of large-scale panel data, few of these processes linking individual and social characteristics to successful aging have been empirically tested. An illustrative analysis of the successful aging model is presented using the few Asian Americans recruited in the Health and Retirement Study ($N = 29,095$; $N = 466$ Asian Americans; $M_{age} = 60.87$, $SD = 11.53$; 55.4% female). The present study tested the associations between predictors and outcomes of successful aging across two cultural subgroups (i.e., White and Asian American older adults). Asian Americans do not derive emotional and health benefits in the same fashion and from the same sources as White Americans. The results challenge the idea that Asian Americans age in the same fashion as White Americans. Future directions for research on Asian American aging and a call for more focused attention to the cultural context that shapes successful aging are provided.

What is the public significance of this article?
This study seeks to counter the scarcity of empirical studies on Asian American aging by using a large national data set to provide useful information for researchers, practitioners, and policymakers. The present study found significant differences in psychological characteristics and predictors of successful aging comparing White and Asian Americans.

According to the U.S. Census, close to 5% (14.7 million) of the U.S. population identify as Asian American and another 1% (2.6 million) identify as Asian in combination with another race. From 2000 to 2010, the U.S. population grew by 9.7%, and the Asian American population grew over four times faster—by 43%. This growth rate is faster than any other racial or ethnic group in the U.S. Specifically, the number of Asian Americans over 55 is projected to grow 240% to 11.4 million by 2060 (National Asian Pacific Center on Aging, 2013). Considering this projected substantial increase of the Asian American population in the U.S. and the larger proportion of the aging population, there is a pressing need to understand aging processes in this population.

Given the popularity of the successful aging and socioemotional selectivity frameworks, much previous research has been dedicated to identifying the psychosocial predictors of aging well among older adults (Rowe & Kahn, 1997). The concept of successful aging has been widely researched for the last 2 decades using Rowe and Kahn (1997) model of successful aging, which defines successful aging as the "low probability of disease and disease-related disability, high cognitive and physical functional capacity, and active engagement

with life" (p. 433). Although several successful aging models have been proposed, most models focus purely on clinical outcomes (Whitley et al., 2016). Other studies have found that there can be great diversity and heterogeneity in how people define what it means to "age successfully," particularly among Asian subpopulations (Nguyen & Seal, 2014; Zhang et al., 2018). Rowe and Kahn (1997) has been ostensibly proposed as a comprehensive model of successful aging that characterizes aging across diverse groups and settings while integrating clinical and nonclinical outcomes as indicators of successful aging (Whitley et al., 2016). However, challenges still exist concerning the cross-cultural generalizability of its predictors. In other words, do the predictors of successful aging from the Rowe and Kahn (1997) perspective indeed predict successful aging across different cultural groups?

As it stands now, the Rowe and Kahn successful aging model is limited to examining these processes among predominantly White American older adults (Jackson et al., 1990). Therefore, our current understanding of what predicts successful aging may also be limited. Although there have been efforts to broaden the model of successful aging to other groups, this is not the case for Asian Americans, who

---

Frederick T. L. Leong 🔾 https://orcid.org/0000-0001-5598-0390
William J. Chopik 🔾 https://orcid.org/0000-0003-1748-8738
Ajay V. Somaraju 🔾 https://orcid.org/0000-0001-6441-7233

Correspondence concerning this article should be addressed to William J. Chopik, Department of Psychology, Michigan State University, 316 Physics Road, East Lansing, MI 48824, United States. Email: chopikwi@msu.edu

have been particularly neglected in the study of successful aging (e.g., Nguyen & Seal, 2014; Zhang et al., 2018). There is even evidence that the model's basic structure might not characterize Asian Americans' experiences. For example, Iwamasa and Iwasaki (2011) found two additional dimensions of successful aging absent from the original model by conducting a qualitative study with 75 Japanese American older adults in Los Angeles. Along these lines, it is important to understand what factors predict successful aging among older Asian Americans and therefore help improve their health and well-being in old age. Our study builds on Iwamasa and Iwasaki (2011) by identifying specific predictor–outcome relationships that differ between older Asian Americans and White Americans by using a larger, nationally representative sample varying in Asian American subgroup membership. The present study examined predictors of successful aging for older Asian Americans in the Health and Retirement Study (HRS).

The Application of Rowe and Kahn's Model of Successful Aging to Asian Americans

As pointed out by Leong and Brown (1995), a central problem when evaluating theories in psychology is the generalizability of these theories. Theories developed and tested on Eurocentric samples cannot be automatically assumed to generalize to other cultural populations, particularly whether these models' construct, concurrent, and predictive validity characterize culturally different individuals (Leong & Brown, 1995). Because many traditional Asian cultures view the mind and body as integrated, models from Western samples operationalizing various components of aging as distinct may not apply to Asian American older adults (Iwamasa & Sorocco, 2002). By examining whether the antecedents (i.e., predictors) of successful aging are seen across cultural groups, we can infer whether the model of successful aging is culturally appropriate to non-White Americans. For example, optimism may be associated with life satisfaction for White Americans but not Asian Americans. This pattern would suggest that Rowe and Kahn's model might not be appropriate in its application across cultures because the antecedents differ between White and Asian Americans. If optimism is associated with life satisfaction among both White and Asian Americans, this pattern would suggest that Rowe and Kahn's model might be valid across cultures and characterize successful aging for groups beyond White Americans.

It is important to note that Rowe and Kahn (1997) successful aging framework is presented at a high level of conceptualization represented as "pillars" (i.e., domains) that can be operationalized with various constructs. For example, a disability could be operationalized as dementia or depression. Similarly, the predictors of successful aging can also be operationalized with multiple constructs such as affective balance, self-esteem, or self-efficacy. Therefore, drawing from the Rowe and Kahn (1997) successful aging framework, we assessed mean-level differences between Asian Americans and White Americans on four operationalization of broad outcomes of successful aging: life satisfaction, self-rated health, cognitive functioning, depression. These four variables roughly correspond to many of the successful aging pillars, such as living disease and disability-free (health), having high cognitive and physical functioning (cognitive functioning, health), and engagement with life (life satisfaction, depression). They are also variables assessed in the HRS—the data set for our study.

As noted by Mejía et al. (2017), there are many concrete antecedents of the successful aging model, including psychological characteristics that confer risk and protection for aging outcomes (e.g., well-being and longevity). Unfortunately, large comprehensive tests of these antecedents as simultaneous predictors of all successful aging pillars do not exist. In an informal survey of the literature and the variables available in the HRS, we identified a set of psychosocial characteristics that might predict successful aging in the present study. Over the years, several commonly studied psychosocial constructs have been nominated as antecedents to successful aging, including affective balance (Ready et al., 2012), perceived mastery and constraints (Lachman & Weaver, 1998), optimism (Chopik et al., 2015), perceived discrimination (Hedge et al., 2006), and education (Mejía et al., 2017). Essentially, positively valenced characteristics (e.g., more positive affective balance, more mastery, more optimism, more education) and lower negatively valenced characteristics (fewer constraints, less discrimination) have translated to a higher likelihood of successful aging in late life. These patterns have resulted in a burgeoning literature of the characteristics predicting successful aging. Moreover, these variables are significant predictors in the successful aging model (Rowe & Kahn, 1997) in White European American samples, although often tested in isolation of each other. White European Americans who exhibit higher affective balance, mastery, and optimism possess criteria related to successful aging. For example, Infurna et al. (2018) found that lower levels of, and declines in, depressive symptoms and functional limitations as well as higher self-rated health were associated with s higher mastery. Similarly, Gawronski et al. (2016) found that optimism was prospectively associated with a reduced likelihood of becoming cognitively impaired. Discrimination is not often assessed for White European Americans but has been found to play a critical role in the health of Asian Americans. Hence, discrimination serves as a negatively valenced culture-specific variable that may enhance the appropriateness of the successful aging model for Asian Americans. In addition to these variables being identified as predictors of successful aging, they also selectively load on existing cultural dimensions of emotional expression and attributions. Specifically, White Americans report higher (positive) emotional intensity and make more internal positive attributions (e.g., something optimists and high-mastery people do) relative to Asian Americans. Differences in emotional intensity and attributions might provide some preliminary reasons why the two cultural groups might differ in what predicts successful aging.

Do the patterns of what predicts successful aging (i.e., greater life satisfaction, subjective health, and cognitive functioning; lower depression) in older White Americans also predict successful aging in older Asian Americans? Suppose successful aging outcomes are NOT predicted at the same level for Asian Americans, as found for White Americans. In that case, there are questions regarding the appropriateness of the model for the former group, as the aforementioned optimism example showed. An additional illustration of this phenomenon is the case of affective balance. Specifically, there is a burgeoning literature on Asian Americans' emotions and how they might differ in the outward expression and experience of positive and negative emotions from White Americans (see, Tsai, 2007, for a review). For example, Chinese Americans report valuing low-arousal positive emotions (e.g., calm, peace) compared to White Americans who value high-arousal positive emotions (e.g., excited).

Because of the unique differences in emotional experiences between Asian Americans and White Americans—the constellation of affective (i.e., emotional) balance might also be different (with White Americans reporting dramatically more positive emotions than negative ones given their desire for high-arousal states). If the construction of affective balance likely differs between the two groups, its predictive validity within a successful aging model framework might differ as well—rendering the appropriateness of such a model in question.

The Present Study

In sum, we examined (a) mean differences in the characteristics between White and Asian Americans and (b) whether the predictors of successful aging differed between White and Asian Americans. Given the lack of research on older Asian Americans, it was difficult to formulate specific expectations regarding the specific differences we expected to observe. For example, the model minority myth—a harmful characterization that Asian Americans share similar positive outcomes as White Americans (Sue et al., 1995)—would assume that Asian Americans would have similar or a greater degree of successful aging (i.e., better health, cognitive functioning, and life satisfaction, and less depression) compared to White Americans and similar predictors of successful aging. However, studies challenging the model minority myth suggest that Asian Americans perform worse on successful aging indicators and display differences from White Americans on predictors of successful aging. These challenges have found that disparities are seen when examining particular Asian subgroups in the population (e.g., Cambodian, Hmong, Karen). Due to the lack of prevailing evidence for either perspective, the study explored which perspective held the most validity in a nationally representative sample and whether the antecedents of successful aging differed across groups.

Method

Participants

We examined the status of Asian Americans using the HRS, particularly in the context of the successful aging model (Rowe & Kahn, 1997), a dominant framework for characterizing how well individuals age and grow old. The HRS has been a significant source of studies related to successful aging. Accessing the restricted race/ethnicity data file for the HRS provided an opportunity to examine whether the antecedents of successful aging predicted outcomes to a similar degree across racial/ethnic groups. The study sample consisted of 29,095 participants (M_{age} = 60.87, SD = 11.53; 55.4% female; N = 466 Asian Americans, N = 28,629 White Americans) from the HRS. The HRS is a nationally representative and prospective panel study that has surveyed more than 22,000 Americans aged 50+ (and their partners, who may be younger) every 2 years. The University of Michigan's Institute for Social Research is responsible for the study and provides extensive documentation about the protocol, instrumentation, sampling strategy, and statistical weighting procedures.

Assessing Asian American Status and Data Availability

Although the HRS oversamples African Americans, much of the remaining non-White participants do not have purposeful sampling frames. As a result, a relatively small number of non-White and non-African American participants take part in HRS. Because of the small number of these participants, race/ethnicity is considered possibly identifiable given the number of other details available for each participant (i.e., their race is coded as "other" in the public release file for this reason). Thus, we received special permission to access race/ethnicity information in the HRS, which led us to identify 466 Asian Americans included throughout the history of the data collection efforts. To our knowledge, this is the first time that Asian Americans have been systematically studied in the HRS. Because there were so few older Asian Americans identified in the data set, participants' exact origin (e.g., Korean American) is not released to data users; only a monolith "Asian American" category is available to restricted data users. We view this as a significant limitation because it was not our goal to present the findings below as a homogenous explanation regarding how the model of successful aging would apply to all Asian Americans. Rather, Asian Americans are a heterogeneous group with significant differences in geographic distribution and unique experiences with American culture (King, 2000). Groups of Asian Americans (and individual Asian Americans) are diverse regarding their immigration histories, countries of origin, ethnic identities, language, and cultural and spiritual/religious practices. Unfortunately, much of this information is not collected in HRS. Future data collection efforts can be deliberate in collecting this information (a point we discuss at length later in the article). We view our present study as a preliminary examination that inspires research into characterizing the experiences of different subgroups of Asian Americans. Because of the imbalance in the number of White Americans and Asian Americans in the data set, we conducted supplementary analyses in which a random subsample of White Americans was compared with Asian Americans (instead of using the full sample). Results are comparable in size and significance to those discussed below.

Data from the present study come from the 2006, 2008, 2010, 2012, and 2014 data collection waves. Every 4 years, a random half of the sample fills out an extended questionnaire on psychological characteristics (i.e., 50% starting in 2006; the remaining 50% starting in 2008). Thus, psychological data were collected intermittently throughout the study window. Health, cognition, and depression data were collected every 2 years. Due to the small number of Asian Americans in HRS, and because we wanted to maximize our available sample size, we aggregated all the years of psychological and health data for all participants. This approach sidesteps the issue of having a great deal of missing data through the list-wise deletion method employed in traditional regression analyses. A multilevel modeling approach in which observations were nested within people yielded similar results (although both analyses rely on the number of between-subjects observations [i.e., individuals] as we compared the two groups). Unfortunately, because there were so few Asian American participants in the HRS and psychological characteristics are only assessed among half the cohort every other wave, there were too few cases (i.e., <100) and too much missing data to justify any longitudinal modeling in the sample. If an Asian American participant contributed multiple assessments on the variables below, their standing on the first assessment point was used. Thus, there were no repeat cases in the data set. A power analysis determined that the Asian American sample size would be large enough to detect a small effect (f^2 = .20) at 80% power with α = .05.

Measures

Successful Aging Indicators

Life Satisfaction

Life satisfaction was assessed with the Satisfaction with Life Scale (Benet-Martínez & Karakitapoglu-Aygün, 2003; Diener et al., 1985). Participants rated the extent to which they agreed with each of five items, on a scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). A sample item is, "In most ways, my life is close to ideal." Responses were averaged for an overall score of subjective well-being (α = .88).

Self-Rated Health

Subjective health was assessed on a 5-point scale in response to the item, "Would you say your health is excellent, very good, good, fair, or poor?" Responses were coded in numeric order such that higher values indicate better health (Idler & Benyamini, 1997).

Cognitive Functioning

Cognitive functioning was measured with a composite measure of five cognitive performance measures (e.g., word recall measures; see, Choi et al., 2018). This summary cognitive functioning measure comprised of: (a) a 10-word immediate recall (range: 0–10 recalled words), (b) 10-word delayed recall (range: 0–10 recalled words), (c) a serial 7's subtraction test of working memory (range: 0–5 successful trials), and a (d) counting backward to assess attention and processing speed (range: 0–2; 0 = unsuccessful, 1 = successful on a second attempt, 2 = successful on a first attempt). Performance across measures was summed (for a max score of 27; higher scores indicated better cognitive functioning). This is the only measure in the present study not previously used in an Asian American study population.

Depression

Depression was assessed using a modified eight-item version of the Center for Epidemiological Studies Depression Scale (CES-D; Mak et al., 2011; Radloff, 1977). Participants indicated whether or not they experienced any of the eight symptoms in the past week (e.g., feeling depressed). The number of depressive symptoms was summed, with higher values indicating higher levels of depression. Internal consistency for the CES-D was high, α = .82.

Successful Aging Predictors

Affective Balance

The Positive and Negative Affect Schedule (Ong et al., 2013; Watson & Clark, 1994) was used to assess the experience of 13 positive emotions (e.g., excited) and 12 negative emotions (e.g., afraid) during the last 30 days, rated on a scale ranging from 1 (*not at all*) to 5 (*very much*). Items from positive (α = .92) and negative affect (α = .89) were averaged. Affective balance was computed by subtracting the negative affect from the positive affect score.

Mastery

Mastery was assessed using five items from Pearlin and Schooler (1978) Mastery Scale that asks participants about their perceived ability to influence, control, and shape life circumstances (e.g., "I can do just about anything I really set my mind to do."). Responses were provided on a 6-point scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). Higher scores (α = .89) indicate higher perceived mastery.

Perceived Constraints

Constraints were measured with five items from a measure of perceived constraints (Lachman & Weaver, 1998) that asks participants about the perceived barriers to establishing personal control (e.g., "What happens in my life is often beyond my control."). Responses were provided on a scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). Higher scores (α = .86) indicate more perceived constraints (Wang et al., 2019).

Optimism

Optimism was measured using the 6-item Life Orientation Test-Revised (LOT-R; Chang et al., 2003; Scheier & Carver, 2018). A sample item is, "In uncertain times, I usually expect the best." Participants rate their agreement with an item on a scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). Higher scores (α = .75) indicate higher optimism.

Everyday Experiences of Discrimination

Discrimination was assessed with five items designed to capture the hassles and stress associated with perceived discrimination (Ong et al., 2013; Williams et al., 1997). Participants responded with how often a series of five events (e.g., "You are threatened or harassed.") happened to them on a 6-point scale ranging from 1 (*never*) to 6 (*almost every day*). Responses were averaged across the five items to yield a composite of experiences of discrimination (α = .81).

Education

Education was measured in years of formal education.

Results

Mean-Level Differences in Successful Aging Indicators Across Cultural Groups

As seen in Table 1, differences were found for most of the variables of interest. Asian Americans reported higher life satisfaction (η^2 = .007), mastery (η^2 = .009), and physical health (η^2 = .004), although the sizes of these differences were small. On the other hand, Asian Americans had lower cognitive functioning (η^2 = .028) and perceived more constraints (η^2 = .006) than White Americans. The effect sizes for the differences in these variables, particularly for cognitive functioning, were surprising given that the effect size for the difference between Asian Americans' and White Americans' education level was large (η^2 = .059), with Asian Americans reporting substantially higher education levels than White Americans. Finally, both groups were comparable in depression (η^2 = .001), optimism (η^2 = .002), discrimination (η^2 = .000), age (η^2 = .003), wealth (η^2 = .000), and gender (*p* = .237). A larger

Table 1

Differences Between White Americans and Asian Americans

Variable	White Americans		Asian Americans		df	F/χ^2	p	η^2
	M	SD	M	SD				
Life satisfaction	3.558	0.880	3.692	0.716	1, 15,061	5.199	.023	.007
Self-report of health	3.136	0.985	3.260	0.911	1, 26,098	7.963	.005	.004
Cognitive functioning	0.740	1.414	0.353	0.773	1, 24,471	31.340	<.001	.028
Depression	1.489	1.597	1.578	1.643	1, 24,766	0.031	.860	.001
Affective balance	1.751	1.234	1.892	1.162	1, 15,228	3.450	.063	.004
Mastery	4.689	1.001	4.872	0.884	1, 15,042	7.776	.005	.009
Constraints	2.234	1.102	2.399	1.113	1, 15,032	4.536	.033	.006
Optimism	4.439	0.919	4.371	0.734	1, 15,020	1.432	.231	.002
Discrimination	1.614	0.681	1.623	0.695	1, 15,034	0.881	.348	.000
Age	60.952	11.528	55.6796	10.174	1, 29,027	96.048	<.001	.003
Gender	55.5%		58.3%		1, 29,095	1.400	.237	
Household wealth	$285,782.404	$731467.628	$294189.515	$482042.984	1, 29,027	.061	.805	.000
U.S. Born	89.5%		13.9%		1, 29,095	2546.515	<.001	
English speaking	95.0%		98.9%		1, 29,095	14.874	<.001	
Years of education	12.289	3.304	13.965	3.364	1, 28,955	116.900	<.001	.059

Note. Life satisfaction, self-report of health, cognitive functioning, and depression are outcomes (i.e., indicators of successful aging). Affective balance, mastery, constraints, optimism, discrimination, and education are predictors of these outcomes.

percentage of White Americans were U.S. born (89.5%) compared to Asian Americans (13.9%). High percentages of both White (95.0%) and Asian Americans (98.9%) spoke English (the survey is offered in either English or Spanish and with/without the assistance of a proxy, a point we discuss later in the article).

Successful Aging Predictors Across Cultural Groups

We compared the predictors of successful aging by running regressions with each successful aging outcome (e.g., life satisfaction) from our six predictors (e.g., affective balance, mastery, constraints, optimism, discrimination, and education). Equivalence tests were

used to formally compare the model estimates for Asian and White Americans (see, bottom of Table 2; Bentler, 2000; Drasgow & Kang, 1984). A Bonferroni correction was applied given the number of comparisons we ran (new $p = .01$). If the model fit better when estimates were constrained to be equal across groups (i.e., the constrained model) compared to when the estimates were freely estimated across groups (i.e., a significant $\Delta\chi^2$ test), then the two groups did not significantly differ from each other (i.e., model fit suffers if the estimates are assumed to differ). However, if the constrained model fit did not fit better than the freely estimated model (i.e., a nonsignificant $\Delta\chi^2$ test), the two groups differ, and this effectively signals significant moderation by cultural group. As seen

Table 2

Regressions Predicting Health, Cognition, and Well-Being Among HRS Participants

White participants	Construct	Life Satisfaction N = 14,697	Health N = 14,795	Cognition N = 14,699	Depression N = 14,709
Psychosocial	Affective Balance	.24 (.01)**	−.14 (.01)**	.05 (.03)*	−.38 (.02)**
	Mastery	.12 (.01)**	−.06 (.01)**	−.03 (.03)	−.02 (.02)
	Constraint	−.04 (.01)**	.05 (.01)**	−.25 (.03)**	.08 (.02)**
	Optimism	.18 (.01)**	−.10 (.01)**	.26 (.04)**	−.10 (.02)**
	Discrimination	−.07 (.01)**	−.06 (.01)**	.01 (.04)	−.04 (.14)
Socioeconomic Status (SES)	Education	−.01 (.002)**	−.09 (.003)**	.48 (.01)**	−.09 (.01)**

Asian American participants	Construct	Life Satisfaction N = 270	Health N = 270	Cognition N = 262	Depression N = 262
Psychosocial	Affective Balance	.28 (.05)**	−.22 (.07)**	.23 (.25)	−.41 (.11)
	Mastery	.07 (.05)	.13 (.08)*	−.47 (.27)*	.03 (.12)**
	Constraint	.004 (.04)	.15 (.06)**	−.27 (.22)	.14 (.10)
	Optimism	.01 (.07)	−.12 (.10)	.35 (.35)	−.05 (.15)
	Discrimination	.03 (.06)	−.03 (.09)	−.08 (.32)	−.04 (.14)
SES	Education	.001 (.02)	−.03 (.02)	.42 (.09)**	−.13 (.04)**
Constrained model, if significant, estimates do not reliably differ across cultural groups		$\Delta\chi^2(6) = 21.23$, p = .002	$\Delta\chi^2(6) = 12.47$, p = .052	$\Delta\chi^2(6) = 3.10$, p = .80	$\Delta\chi^2(6) = 5.76$, p = .45

Note. HRS = Health and Retirement Study.
* $p < .10$. ** $p < .05$.

in Table 2, there were several instances in which the two groups differed (i.e., equivalence tests confirmed that the estimates significantly differed for each outcome across groups, except for life satisfaction). For White Americans, we were able to replicate many of the associations seen in the current literature—more affective balance, mastery, optimism, education, and fewer constraints and discrimination were associated with better health, cognition, and well-being (i.e., greater life satisfaction and fewer depressive symptoms).

Critically, many of these associations were not found among Asian Americans. Although affective balance and education were associated with better outcomes, reliable predictors outside of these two were rare. For example, compared to the predictive utility of mastery and optimism for life satisfaction among White Americans, the effect sizes were close to zero among Asian Americans. Occasionally, near-zero effect sizes for White Americans for some variables (e.g., affective balance, mastery, and discrimination predicting cognition) were several magnitudes larger among Asian Americans. Many associations would challenge our existing formulations of theories about aging. Specifically, mastery was associated with worse cognition in older adulthood, and optimism and discrimination were entirely unrelated to the outcomes of interest. Thus, it appears that traditionally studied predictors of successful aging and socioemotional balance do not apply to both groups in a uniform way.

Discussion

To assess the appropriateness of the successful aging model for Asian Americans, we examined differences in successful aging indicators—and their predictors—between White and Asian Americans in a large panel study that has served as the basis for much of what we know about aging in the United States—the HRS.

Comparisons Between White and Asian Americans on Indicators of Successful Aging

Although Asian Americans occasionally reported higher functioning on indicators and predictors of successful aging, very few of the significant predictors found for White Americans were present for Asian Americans. For example, optimism and constraints were not robust predictors of successful aging among Asian Americans but were among White Americans. Several factors might be particularly influential for older Asian Americans in predicting successful aging. For example, affective balance, mastery, and discrimination were much larger predictors of cognitive functioning among Asian Americans but were less important among White Americans. Such differences can highlight how aging in America is different between White and Asian Americans. For example, stronger structural factors might constrain the degree to which Asian Americans age successfully, explaining why many of the individual difference characteristics under study here were not significant predictors. Other variables, like perceived discrimination, might be a uniquely Asian American experience (compared to White Americans), which might explain why it was a more consistent predictor of successful aging among Asian Americans. Finally, the finding that education might confer fewer benefits among racial/ethnic minorities has been found before (Bumpus et al., 2020), but the present study is among the first to examine the phenomenon and find similar effects among older Asian Americans.

The present study's results suggest mean differences in successful aging characteristics and predictors of successful aging between White and Asian Americans. The results are consistent with qualitative work suggesting that the structure and antecedents of successful aging among Asian Americans might depart significantly from what is found among White Americans (Iwamasa & Iwasaki, 2011). We hope that these findings inspire future research and a concerted effort to recruit and retain Asian Americans in large-scale representative panel studies.

Our study provided a preliminary test of whether the model of successful aging can be readily applied to the experience of older Asian Americans. In this way, our study attempts to increase research on older Asian Americans recommended by Iwamasa and Sorocco (2002). By using the large representative sample assembled in the HRS, our findings also point to important questions for future research. For example, Asian Americans fared better than White Americans in major outcome variables (e.g., physical health, life satisfaction, and mastery). Yet, many of the predictors of successful aging in the HRS held for White Americans but not Asian Americans. This pattern of differential cultural validity points to a need for culture-specific aging models. Our findings also indicate different predictors and correlates of the pathways to successful aging for Asian Americans may be salient when compared to White Americans in the HRS.

In addition, of the few existing studies on the aging of Asian Americans, most have focused on comparing Asian American groups. Our results indicated differential health outcomes displayed between Asian Americans and White Americans. Specifically, Asian Americans' higher perceived constraints and lower cognitive functioning demonstrate that, although they may fare better than White Americans in some domains (e.g., Browne & Broderick, 1994), older Asian Americans report deficits in other domains (e.g., reduced cognitive functioning). Further, the factors traditionally considered protective factors among White Americans might not be the same as those found among Asian Americans.

Research and Policy Implications

The efforts here constitute both a substantive and illustrative contribution to how Asian American older adults experience late life. Some of these cultural gaps in knowledge arise from practical considerations—as of right now, there are no large-scale panel studies in which Asian Americans' health, well-being, work, and material resources are tracked deliberately and longitudinally on a scale as large as the HRS. Other cultural gaps arise because the ingredients that make up successful aging could differ in Asian American populations. In the present study, we gathered data from every Asian American participant in the nearly 30-year data collection of the HRS—the most comprehensive study of population aging available.

From a research perspective, the present study generates insights regarding the applicability of Eurocentric models that deserve follow-ups with more focused operationalization with culture-specific variables and samples. In such broad studies as the HRS, investigators necessarily take a broad approach to study older adults. For example, understanding why education did not have as enhancing an effect among Asian Americans for some outcomes as it did for White Americans is an essential direction for future research. Indeed, it is true that, for many people of color, education is of a

different currency—the health, financial, and well-being benefits do not necessarily accompany gains in education in the same ways it does for White Americans. These deficits might be attributable to lower rates of upward mobility, the security of finding stable employment (which reduces stress and increases longevity; Turner, 1995), or another psychological reason entirely. Having stand-alone studies catering to the issues facing older Asian Americans (but also allowing for some harmonization and comparisons with White American) is sorely needed.

More broadly, one underappreciated limitation of past research is the relative neglect of Asians and Asian Americans in the study of racism, cross-racial/ethnic group comparisons, and disparities in health and well-being in later life. Efforts to center the experience of Asian Americans in contemporary research are often saddled with the dual responsibility of challenging the model minority myth and characterizing daily experiences of discrimination of Asian Americans (Gee & Peck, 2017; Parks & Yoo, 2016). Although work with other racial/ethnic groups has been valuable in helping to build models of risk and resilience in minority health, examinations of Asian Americans in particular find that the aspects of racial identity often seen as protective among African Americans facing discrimination are not as protective among Asian Americans facing discrimination (Yip et al., 2019). Bringing in and considering experiences of discrimination among Asian Americans in theoretical models of successful aging will be a crucial step moving forward.

From a policy and practitioner perspective, the present study highlights that our current understanding of successful aging may be misaligned with Asian American older adults' actual experiences with aging. This insight has implications for how societies might advocate for improving the health and well-being of older Asian Americans and the practical advice a medical doctor or psychologist might give a patient/client. We found that many of the individual characteristics that people bring to the table (e.g., their optimism, affective balance) rarely predicted successful aging among Asian Americans. When thinking about interventions, these particular characteristics might not make much sense to target and change for Asian Americans. Rather, there are likely other, perhaps more structural or culture-specific, characteristics that are antecedents to successful aging among older Asian Americans. Although variation in successful aging outcomes was present among Asian Americans, an important next step is to identify modifiable characteristics that can empower practitioners to advocate for the health and happiness of older Asian Americans.

Limitations of the Study

As with all studies, our illustrative analysis suffered from several limitations. First, due to the small sample size of the Asian American HRS subset, there was a general lack of power to detect significant effects for more complex and nuanced models that involved interaction terms. Second, there is the limitation of the representativeness of our Asian American sample. While White Americans were a nationally representative sample, Asian Americans were collected through happenstance. Further, data protections around the identifiability of Asian Americans in HRS prevented us from matching appropriately to make comparisons more valid, such as studying subgroups of Asian Americans (although mean-level differences in most sociodemographic characteristics were small or not significant). Therefore, there may be biases in responding that make the

Asian Americans in our analyses not representative of the broader population of Asian Americans. As a result, our comparisons between the two groups may not be truly reflective of national differences. However, our position is that the first two limitations do not substantially change our general conclusions regarding cultural differences in successful aging. The third limitation reflects data collection deficiencies in HRS rather than analytical deficiencies on our part.

First, while Asian Americans were a small sample size relative to White Americans, they were not a small sample size in the absolute sense. Therefore, we had adequate statistical power to detect the predictive relationships between psychosocial and socioeconomic variables and successful aging outcomes. However, tests of interactions typically require much larger sample sizes than provided in the Asian American subset of the HRS data set. While our study takes a valuable first step in understanding differences between Asian and White Americans, the few Asian Americans prevented us from detecting more nuanced differences.

Second, we freely acknowledge that the sampled Asian Americans may not reflect the national population; however, there is no nationally representative study of Asian American aging to date. As previously mentioned, highlighting the lack of Asian American representation in the HRS—which represents one of the largest and most comprehensive aging studies to date—was one point of emphasis for us. The lack of attention to older Asian Americans fundamentally limits the generalizability and utility of any study funded or based around the HRS data set. Related, as a secondary data analysis project, we were also restricted in the types of variables we could examine. Decisions to include particular data instruments in the HRS data collection effort were likely guided in consultation with existing models of aging, which have predominantly only been examined among older White Americans.

Further, panel studies make significant assumptions about the language abilities of their participants. There are assumptions made of older White Americans with lower literacy levels and older Asian Americans who may be speaking English as a second language. As of right now, HRS only offers its survey in English or Spanish. These observations reveal that some measures may be problematic, especially word recall tasks (i.e., a component of our cognitive functioning measure). Nevertheless, even with the little and sometimes problematic data collected here, there were convincing cultural differences in the correlates of successful aging, suggesting that serious reconsiderations of broadening participant recruitment, variable selections, and survey accessibility must be done. Further investigations targeting the psychological sources of these cultural differences and whether these differences change over time or across different contexts will require the HRS—and the psychological community in general—to pay more attention to the growing aging Asian American population.

Future Directions

Our assessment of the appropriateness of the successful aging model with Asian Americans identified some important cultural differences. To reveal the culturally specific mechanisms underlying successful aging among Asian Americans, several future directions will prove worthwhile. Related to our earlier points, having a large, representative sample of Asian Americans followed over time is an absolute necessity. The HRS, funded by NIA, has been the state-of-the-art longitudinal

data set informing policy and research about the patterns of aging adults in the U.S. since 1992. It has provided

> a detailed portrait of America's older adults, helping us learn about this growing population's physical and mental health, insurance coverage, financial situations, family support systems, work status, and retirement planning . . . an invaluable, growing body of multidisciplinary data to help address the challenges and opportunities of aging. (p. 4; Health and Retirement Study, 2020)

While there has been an oversampling of African Americans and Hispanics, the HRS' limited application to address the significant problems associated with health disparities for Asian Americans needs to be corrected. This neglect in the study of aging among Asian Americans can also be found in federally funded research. Based on search results from the National Institutes of Health (NIH) RePORTER, the National Institute on Aging (NIA) has funded 48,028 projects (excluding subprojects) since 1990. Of those, 191 (0.40%) included the term "Asian American," and only 16 (0.03%) examined Asian American samples specifically. The lack of funded research projects contrasts with Asian Americans currently constituting 5% of the U.S. population. A PsychInfo search returned 93,077 entries related to Aging overall. However, only 388 of those were related to Asian Americans (0.42%), compared to the 1,551 entries related to African Americans.

A dedicated study that recruits a representative sample of Asian Americans can help confirm the findings we reported here and further extend the study of Asian American aging. For example, having a large sample would allow for subgroup comparisons of different Asian American groups (e.g., Chinese American, Korean American) that would likely show group differences in the indicators of successful aging (Mui & Kang, 2006). To this end, conducting a quasi-HRS specifically about the lives of Asian Americans would allow for useful comparisons with other HRS sister studies that focus on the lives of native Japanese (i.e., the Japanese Study of Aging and Retirement), Korean (i.e., the Korean Longitudinal Study of Aging), and Chinese (i.e., the China Health and Retirement Longitudinal Study) older adults. Such a comparison would allow for a triangulation of the predictors and components of successful aging to see which aspects are uniquely attributable to their American experience and which aspects are attributable to their non-American experience.

Such a study that resembles HRS but is geared toward Asian Americans would undoubtedly help researchers and practitioners interested in culture and aging. Additionally, such an effort would also provide an opportunity to improve the measurement and operationalization of many study variables. The American HRS was constructed using traditional Western models of successful aging that relied primarily on homogenous groups of White Americans. As we found in our study presented here, it is unlikely that a one-size-fits-all approach to successful aging is worthwhile. A more focused study dedicated to Asian Americans would allow researchers to examine additional culture-specific factors that likely play a role in how people age and navigate the uncharted waters of being an older adult in the United States (e.g., cultural identity, acculturation; Gelfand & Yee, 1991; Kitayama et al., 2020). Implementing such a study that simultaneously allows for cross-cultural comparisons while maintaining an appreciation for the specific experiences of Asian Americans would present a major boon for the psychological and gerontological science community.

Conclusion

Most of the factors hypothesized to predict successful aging outcomes did so for White Americans but not Asian Americans. The present study illustrates how contemporary models of aging are reflected in—and challenged by—the distinct cultural experience of Asian Americans' aging. We hope our findings inspire efforts to collect large representative panel studies of Asian American older adults to understand further how successful aging is ultimately bound and shaped by cultural experiences.

References

Benet-Martínez, V., & Karakitapoglu-Aygün, Z. (2003). The interplay of cultural syndromes and personality in predicting life satisfaction: Comparing Asian Americans and European Americans. *Journal of Cross-Cultural Psychology*, *34*, 38–60. https://doi.org/10.1177/002202210 2239154

Bentler, P. M. (2000). Rites, wrongs, and gold in model testing. *Structural Equation Modeling*, *7*, 82–91. https://doi.org/10.1207/S15328007SE M0701_04

Browne, C., & Broderick, A. (1994). Asian and Pacific Island elders: Issues for social work practice and education. *Social Work*, *39*, 252–259.

Bumpus, J. P., Umeh, Z., & Harris, A. L. (2020). Social class and educational attainment: Do Blacks benefit less from increases in parents' social class status? *Sociology of Race and Ethnicity (Thousand Oaks, Calif.)*, *6*, 223–241. https://doi.org/10.1177/2332649219854465

Chang, E. C., Sanna, L. J., & Yang, K.-M. (2003). Optimism, pessimism, affectivity, and psychological adjustment in US and Korea: A test of a mediation model. *Personality and Individual Differences*, *34*, 1195–1208. https://doi.org/10.1016/S0191-8869(02)00109-5

Choi, H., Schoeni, R. F., Martin, L. G., & Langa, K. M. (2018). Trends in the prevalence and disparity in cognitive limitations of Americans 55–69 years old. *Journal of Gerontology*, *73*(Suppl. 1), S29–S37. https://doi.org/10.1093/geronb/gbx155

Chopik, W. J., Kim, E. S., & Smith, J. (2015). Changes in optimism are associated with changes in health among older adults. *Social Psychological and Personality Science*, *6*, 814–822. https://doi.org/10.1177/1948550615590199

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, *49*, 71–75. https://doi.org/10.1207/s15327752jpa4901_13

Drasgow, F., & Kang, T. (1984). Statistical power of differential validity and differential prediction analyses for detecting measurement nonequivalence. *Journal of Applied Psychology*, *69*, 498–508. https://doi.org/10.1037/0021-9010.69.3.498

Gawronski, K. A. B., Kim, E. S., Langa, K. M., & Kubzansky, L. D. (2016). Dispositional optimism and incidence of cognitive impairment in older adults. *Psychosomatic Medicine*, *78*, 819–828. https://doi.org/10.1097/PSY.0000000000000345

Gee, B., & Peck, D. (2017). *The illusion of Asian success: Scant progress for minorities in cracking the glass ceiling from 2017-2015*. https://www.ascendleadershipfoundation.org/research/the-illusion-of-asian-success

Gelfand, D., & Yee, B. W. (1991). Trends and forces: Influence of immigration, migration, and acculturation on the fabric of aging in America. *Generations: Journal of the American Society on Aging*, *15*, 7–10.

Health and Retirement Study. (2020). *Health and Retirement survey/asset and health dynamics among the oldest old (HRS/AHEAD)* https://www.psc.isr.umich.edu/dis/data/resource/detail/1349

Hedge, J. W., Borman, W. C., & Lammlein, S. E. (2006). *The aging workforce: Realities, myths, and implications for organizations*. American Psychological Association. https://doi.org/10.1037/11325-000

Idler, E. L., & Benyamini, Y. (1997). Self-rated health and mortality: A review of twenty-seven community studies. *Journal of Health and Social Behavior*, 38, 21–37. https://doi.org/10.2307/2955359

Infurna, F. J., Kappes, C., & Fraire, N. (2018). Long-term antecedents of constraints and mastery: Findings from the Health and Retirement Study. *Psychology and Aging*, 33, 965–974. https://doi.org/10.1037/pag0000281

Iwamasa, G. Y., & Iwasaki, M. (2011). A new multidimensional model of successful aging: Perceptions of Japanese American older adults. *Journal of Cross-Cultural Gerontology*, 26, 261–278. https://doi.org/10.1007/s10823-011-9147-9

Iwamasa, G. Y., & Sorocco, K. H. (2002). Aging and Asian Americans: Developing culturally appropriate research methodology. In G. C. N. Hall & S. Okazaki (Eds.), *Asian American psychology: The science of lives in context* (pp. 105–130). American Psychological Association.

Jackson, J. S., Antonucci, T. C., & Gibson, R. C. (1990). Cultural, racial, and ethnic minority influences on aging. In J. E. Birren & K. W. Schaie (Eds.), *Handbook of the psychology of aging* (pp. 103–123). Academic Press. https://doi.org/10.1016/B978-0-12-101280-9.50012-7

King, R. C. (2000). Racialization, recognition, and rights: Lumping and splitting multiracial Asian Americans in the 2000 Census. *Journal of Asian American Studies*, 3, 191–217. https://doi.org/10.1353/jaas.2000.0017

Kitayama, S., Berg, M. K., & Chopik, W. J. (2020). Culture and well-being in late adulthood: Theory and evidence. *American Psychologist*, 75, 567–576. https://doi.org/10.1037/amp0000614

Lachman, M. E., & Weaver, S. L. (1998). The sense of control as a moderator of social class differences in health and well-being. *Journal of Personality and Social Psychology*, 74, 763–773. https://doi.org/10.1037/0022-3514.74.3.763

Leong, F. T. L., & Brown, M. T. (1995). Theoretical issues in cross cultural career development: Cultural validity and cultural specificity. In W. B. Walsh & S. H. Osipow (Eds.), *Handbook of vocational psychology: Theory, research, and practice* (pp. 143–180). Lawrence Erlbaum.

Mak, W. W., Law, R. W., & Teng, Y. (2011). Cultural model of vulnerability to distress: The role of self-construal and sociotropy on anxiety and depression among Asian Americans and European Americans. *Journal of Cross-Cultural Psychology*, 42, 75–88. https://doi.org/10.1177/0022022110361713

Mejía, S. T., Ryan, L. H., Gonzalez, R., & Smith, J. (2017). Successful aging as the intersection of individual resources, age, environment, and experiences of well-being in daily activities. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 72, 279–289. https://doi.org/10.1093/geronb/gbw148

Mui, A. C., & Kang, S.-Y. (2006). Acculturation stress and depression among Asian immigrant elders. *Social Work*, 51, 243–255. https://doi.org/10.1093/sw/51.3.243

National Asian Pacific Center on Aging. (2013). *Asian Americans and Pacific Islanders in the United States aged 55 years and older: Population, nativity, and language*. https://napca.org/wp-content/uploads/2017/10/55-population-report-FINAL.pdf

Nguyen, A. L., & Seal, D. W. (2014). Cross-cultural comparison of successful aging definitions between Chinese and Hmong elders in the United States. *Journal of Cross-Cultural Gerontology*, 29, 153–171. https://doi.org/10.1007/s10823-014-9231-z

Ong, A. D., Burrow, A. L., Fuller-Rowell, T. E., Ja, N. M., & Sue, D. W. (2013). Racial microaggressions and daily well-being among Asian Americans. *Journal of Counseling Psychology*, 60, 188–199. https://doi.org/10.1037/a0031736

Parks, S. J., & Yoo, H. C. (2016). Does endorsement of the model minority myth relate to anti-Asian sentiments among White college students? The role of a color-blind racial attitude. *Asian American Journal of Psychology*, 7, 287–294. https://doi.org/10.1037/aap0000056

Pearlin, L. I., & Schooler, C. (1978). The structure of coping. *Journal of Health and Social Behavior*, 19, 2–21. https://doi.org/10.2307/2136319

Radloff, L. S. (1977). The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, 1, 385–401. https://doi.org/10.1177/014662167700100306

Ready, R. E., Åkerstedt, A. M., & Mroczek, D. K. (2012). Emotional complexity and emotional well-being in older adults: Risks of high neuroticism. *Aging & Mental Health*, 16, 17–26. https://doi.org/10.1080/13607863.2011.602961

Rowe, J. W., & Kahn, R. L. (1997). Successful aging. *The Gerontologist*, 37, 433–440. https://doi.org/10.1093/geront/37.4.433

Scheier, M. F., & Carver, C. S. (2018). Dispositional optimism and physical health: A long look back, a quick look forward. *American Psychologist*, 73, 1082–1094. https://doi.org/10.1037/amp0000384

Sue, S., Sue, D. W., Sue, L., & Takeuchi, D. T. (1995). Psychopathology among Asian Americans: A model minority? *Cultural Diversity and Mental Health*, 1, 39–51. https://doi.org/10.1037/1099-9809.1.1.39

Tsai, J. L. (2007). Ideal affect: Cultural causes and behavioral consequences. *Perspectives on Psychological Science*, 2, 242–259. https://doi.org/10.1111/j.1745-6916.2007.00043.x

Turner, J. B. (1995). Economic context and the health effects of unemployment. *Journal of Health and Social Behavior*, 36, 213–229. https://doi.org/10.2307/2137339

Wang, Y., Li, L. M. W., & Xie, F. (2019). Cultural difference in maladaptive functions of perfectionistic self-presentation. *Asian Journal of Social Psychology*, 22, 290–300. https://doi.org/10.1111/ajsp.12371

Watson, D., & Clark, L. A. (1994). *The PANAS-X: Manual for the positive and negative affect schedule—expanded form* [Unpublished manuscript]. University of Iowa.

Whitley, E., Popham, F., & Benzeval, M. (2016). Comparison of the Rowe–Kahn model of successful aging with self-rated health and life satisfaction: The West of Scotland Twenty-07 Prospective Cohort Study. *The Gerontologist*, 56, 1082–1092. https://doi.org/10.1093/geront/gnv054

Williams, D. R., Yan Y., Jackson, J. S., & Anderson, N. B. (1997). Racial differences in physical and mental health socio-economic status, stress and discrimination. *Journal of Health Psychology*, 2, 335–351. https://doi.org/10.1177/135910539700200305

Yip, T., Wang, Y., Mootoo, C., & Mirpuri, S. (2019). Moderating the association between discrimination and adjustment: A meta-analysis of ethnic/racial identity. *Developmental Psychology*, 55, 1274–1298. https://doi.org/10.1037/dev0000708

Zhang, W., Liu, S., & Wu, B. (2018). Defining successful aging: Perceptions from elderly chinese in Hawai'i. *Gerontology and Geriatric Medicine*, 4, Article 2333721418778182. https://doi.org/10.1177/2333721418778182