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Retirement as Meaningful: Positive Retirement Stereotypes Associated with Longevity

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Abstract

Studies examining the association between retirement and health have produced mixed results. This may be due to previous studies treating retirement as merely a change in job status rather than a transition associated with stereotypes or societal beliefs (e.g., retirement is a time of mental decline or retirement is a time of growth). To examine whether these stereotypes are associated with health, we studied retirement stereotypes and survival over a 23-year period among 1,011 older adults. As predicted by stereotype embodiment theory, it was found that positive stereotypes about physical health during retirement showed a survival advantage of 4.5 years (hazard ratio = 0.88, p = .022) and positive stereotypes about mental health during retirement tended to show a survival advantage of 2.5 years (hazard ratio = 0.87, p = .034). Models adjusted for relevant covariates such as age, gender, race, employment status, functional health, and self-rated health. These results suggest that retirement preparation could benefit from considering retirement stereotypes.

Research studies examining the association between retirement and health have produced mixed results. For example, studies have found that retirement leads to worse health (e.g., Bamia, Trichopoulou, & Trichopoulos, 2007), better health (e.g., Coe & Zamarro, 2011) or has no effect on health (Kasl & Jones, 2000). This may be due to previous studies treating retirement as merely a change in job status rather than a transition associated with stereotypes or societal beliefs (e.g., retirement is a time of mental decline or retirement is a time of growth). Given the social, emotional and cultural complexities of retirement, McVittie and Goodall (2012) challenged researchers to study perception and stereotypes toward retirement. Taking up this challenge, we investigated how stereotypes toward mental and physical health during retirement impact mortality risk in a 23-year prospective cohort study.

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Lakra, Ng, and Levy (2012) were the first to conduct such a study, and found that more positive retirement stereotypes were associated with longevity in an American cohort of older adults. In this study, retirement stereotypes were conceptualized as a single variable. In the following study, we built on this previous study by examining whether the multiple meanings individuals attach to retirement may also have a health benefit (Franca, 2004; Sargent, Lee, Martin, & Zikic, 2013). Despite the American context of the aforementioned and present studies, we believe that the focus on the plural meanings of retirement has wider geographical applicability given the cultural universality of retirement as a life milestone (McVittie & Goodall, 2012). These multiple meanings can be grouped as value and theme (Ajzen, 2001; Eagly & Chaiken, 1993).

With regard to value, retirement stereotypes can either be positive or negative. For example, from selling financial plans to travel packages, advertisers typically portray negative images of grumpy and listless elders who could be transformed into beaming “golden agers” basking in the Florida sun by buying their products and services (Ekerdt & Clark, 2001). Similarly, a cross-sectional study among nonacademic employees at an American university found that 65% viewed retirement positively whereas 35% regarded retirement as a negative stage of life. Those with positive retirement stereotypes tended to look forward to retirement as a new phase of life with more time for hobbies and travel while negative thinkers fear the potential loss of the meaning that the work afforded (Fillenbaum, 1971).

Several studies show that stereotypic value is associated with health: Elders with positive perceptions about aging lived 7.5 years longer than peers who think negatively after adjusting for functional health and other covariates (Levy, Slade, Kunkel, & Kasl, 2002); positive age stereotypes have also been associated with better memory (Levy, Zonderman, Slade, & Ferrucci, 2012), and recovery from disability (Levy, Slade, Murphy, & Gill, 2012). Specific to retirement stereotypes, Lakra et al. (2012) found that positive retirement stereotypes were associated with 41% decreased mortality risk.

With respect to theme, retirement stereotypes often center on mental or physical health (Bailey, 1999; Franca, 2004). The former (mental) focus on expectations of one's mental state during retirement, such as living a life full of meaningfulness or loneliness. The latter (physical) focus on expectations of one's physical health, such as living a life full of activity or illness. In the media, images of retirement that are typically used to market services are often thematically driven. Images of glowing physical health that follows retirement are portrayed by fit and active elders who embark on adventures to far-flung destinations as a way to sell travel packages (Savishinsky, 2001), whereas medical companies often show older individuals who suffer from physical problems that need their products (Franca, 2004). On the other hand, dating agencies conjure images of fulfilled elders who found renewed meaning in life through new romantic endeavors whereas television shows often portray older characters who show confusion or forgetfulness (Bailey, 1999; Donlon, Ashman, & Levy, 2005). This dual theme also emerged in Finnish magazines targeted at readers above 50 years (Lumme-Sandt, 2011), and prime time TV in Germany (Kessler, Schwender, & Bowen, 2010). Similar themes have been found in both qualitative studies that interviewed retirees (Pepin & Deutscher, 2011), and quantitative ones, such as the Hartford Retirement Survey (2012).

Research suggests that two themes of retirement stereotypes may affect retirees differently (Franca, 2004). Retirement stereotypes toward mental health are associated with adjustment issues while retirement stereotypes toward physical health are related to health outcomes (Rosenkoetter & Garris, 1998). In a laboratory study, Levy and Leffheit-Limson (2009) found support for the stereotype-matching effect that mental and physical age stereotypes influenced health in different ways. When elders were primed with negative words describing mental states (e.g., dementia, confused), they performed poorer on mental tasks (memory tests) than physical ones (timed chair-stand tests). Likewise, priming elders with negative words on physical states (e.g., feeble, shaky), they performed worse on physical tasks than mental ones. Taken together, it seems useful to examine whether age stereotypes toward mental and physical health impact mortality risk. There are no known studies on how stereotype theme influences mortality.

Our study is the first to investigate how cross categorizations of theme and value for retirement stereotypes influence mortality risk. We draw support from two theoretical frameworks: life course perspective (Settersten, 1998; Wang & Shultz, 2010) and stereotype embodiment theory (Levy, 2009). The life course perspective posits that personal characteristics and situational context influence the experience of life's milestones such as retirement (Wang, Henkens, & van Solinge, 2011). We focus on personal characteristics and argue that retirement stereotypes, heretofore not considered by the life course perspective, play a role in retirement health.

Stereotype embodiment theory (SET; Levy, 2009) proposes that age stereotypes (beliefs about older adults) are internalized across the lifespan, gain relevance as one approaches old age, and ultimately affect one's health. Against this background, SET provides a theoretical basis to explain how retirement stereotypes could exert an effect on mortality risk: internalizing negative retirement stereotypes that become self-relevant as one approaches retirement. These negative age stereotypes may translate into negative health behaviors that further impact mortality risk.

Based on prior evidence, Hypothesis 1 is that participants with more positive stereotypes toward mental health during retirement will have greater longevity, controlling for age, gender, race, marital status, employment, work attitudes, education, self-rated health and functional health. Likewise, Hypothesis 2 states that those with positive stereotypes toward physical health during retirement will have greater longevity, controlling for the same covariates. We controlled for these covariates because they are potential confounders. For example, through a nationally representative cohort study in Poland, Bartoszewska, Tobiasz-Adamczyk, Brzyski, and Kopacz (2007) found that both employment status and work attitudes, defined as how positive one is toward work, are associated with mortality risk. Work attitudes were also found to influence retirement attitudes (Gordon, 1994), and no known studies have investigated the relative influence of both factors on mortality risk. Against this backdrop, we aimed to extend previous research by investigating how different themes of retirement stereotypes relate to survival; cross categorizing the influence of themes (mental, physical) and value (positive, negative); and exploring the impact of retirement stereotypes, adjusting for work attitudes, on survival.

Methods

Participants

The study cohort consisted of participants in the Ohio Longitudinal Study of Aging and Retirement (OLSAR), a prospective study by the Scripps Gerontology Center at Miami University (Atchley, 1999). Retirement stereotypes were measured at baseline and participants were followed for 23 years. Time of death was ascertained through the National Death Index (NDI), and the mean age of death is 79.6 years ($SD = 0.43$). The OLSAR was designed as a longitudinal study of residents of Oxford, Ohio who were over the age of 50 on July 1, 1975 (Atchley, 1999). With the use of voter registration records, welfare records, a postcard census that was mailed to all addresses in the area, and a review of the telephone directory by long-standing members of the community, 1,805 prospective participants were identified. All prospective participants were contacted and data were collected primarily by mail. Participants unable to complete the questionnaire, usually due to visual impairments, were followed-up by telephone and interviewed. For participation in the OLSAR, individuals had to be residents of the community, at least 50 years of age on July 1, 1975 and without cognitive impairment. Of those who met this criterion, 1,018 agreed to participate.

Of the 1018 participants, no vital statistics existed for seven individuals, leaving a usable sample of 1,011. However, 446 participants did not disclose their race and/or employment status but had data on other variables. Rather than exclude them, we included them by creating a category “undisclosed.” For race, 74.7% self-identified as Whites, 3.7% non-Whites, and 21.7% did not disclose. For employment, 35% self-reported as retired, 34.2% employed, 2.6% housewives, and 28.2% did not disclose. Thereafter, we were concerned whether non-disclosure on race and employment biased their answers on retirement stereotypes. Our concerns were unfounded: there were no significant differences in retirement stereotypes toward mental health across race ($F = 0.71$, $p = .49$) and employment ($F = 0.81$, $p = .49$); likewise, no statistical differences for retirement stereotypes toward physical health across race ($F = 0.44$, $p = .64$) and employment ($F = 0.55$, $p = .65$). With respect to other demographics, which were representative of the town (see Tables 1 and 2), there were 55.2% female, 74% married, and a mean age of 62.77 ($SD = 9.26$; range: 50–94 years).

Measures

Retirement Stereotypes

Participants were asked what “best describes what you think about your life in retirement—and how your life is or will be during your retirement” (Atchley, 1999) by rating 14 pairs of adjectives. Two factors emerged from the confirmatory factor analysis (reported below). Ten measured stereotypes toward mental health during retirement (bad–good, inactive–active, sad–happy, uninvolved–involved, hopeless–hopeful, worthless–worthy, dissatisfied–satisfied, empty–full, idle–busy, meaningless–meaningful), while four measured stereotypes toward physical health during retirement (immobile–mobile, sick–healthy, unable–able, dependent–independent). The reliabilities, as measured by Cronbach's α, are 0.79 (95% CI: 0.71, 0.87) and 0.91 (95% CI: 0.87, 0.95), respectively.

For each pair, participants selected a score from one to seven that best reflected their retirement life, such that a higher score indicated a more positive evaluation. For example, the meaningless–meaningful pair would score from 1 (*extremely meaningless*) to 7 (*extremely meaningful*). To facilitate Kaplan–Meier analyses, we created dichotomous versions using a median split as recommended by Chida and Steptoe (2008); scores above the median indicated positive stereotypes. Both dichotomous and continuous versions were used in subsequent analyses. Descriptions of the sample according to both stereotypic themes are presented in Tables 1 and 2.

Covariates

Age, gender, race, marital status, employment status, years of education, work attitudes, functional health, and self-rated health were entered as covariates to adjust for their effects when exploring the stereotype–mortality link. Marital status was classified into two groups (married, not married). Attitude toward work was measured by "how do you feel about work?" from 1 (*strongly dislike work*) to 5 (*strongly enjoy work*). Rosow and Breslau's (1966) six-item Guttmann Health Scale for the Aged measured functional health, defined as the degree to which one can manage adequately or are restricted in their activities because of their physical condition or capacity. Sample items include "able to walk up and down the stairs to the second floor" on a yes/no response format. Self-rated health was answered on a 5-point scale, from 1 (*very poor*) to 5 (*very good*).

Outcome

Survival is the primary outcome of interest. We used the number of days participants survived from baseline interview in 1975 to January 1, 1998, the date for mortality data obtained from the National Death Index (NDI). Consistent with previous studies, death was ascertained through a vital-status protocol based on NDI information that matched the deceased on three criteria: first and last name; date of birth; and state that death happened (Levy, Kunkel, Remmes, & Slade, 2004). To be considered dead, individuals needed to either meet all three or two of the three criteria with added confirmation by an obituary and/or informant. If individuals only tallied with the NDI data by birth date and location of death, to be considered dead they also had to match on first name (some individuals changed their last name with marriage/divorce). On the other hand, to be grouped as living, individuals were (a) verified as alive through January 1, 1998 by participants themselves; (b) verified to be alive through January 1, 1998, by an informant with no record on the NDI; (c) listed in the NDI but sent in a survey response after the NDI death date. This method was consistent with previous studies (Levy et al., 2002).

Analytic Plan

We followed a three-step plan. First, we conducted a confirmatory factor analysis (CFA) on the retirement stereotypes scale to show factor consistency with previous validations (Lakra, Ng, & Levy, 2012; Ng & Rayner, 2010). Multiple indices are used to evaluate model fit in our CFA. A common evaluation of model fit is to use the Root Mean Square Error Approximation (RMSEA; Steiger & Lind, 1980). The RMSEA measures discrepancy per degree of freedom and imposes a penalty for adding complexity to a model without substantially improving model fit. Smaller RMSEA reflect better model fit, with values less

than .05 denoting a “close fit,” between .05 and .08 corresponds to an “acceptable” fit, and RMSEA values larger than .10 suggest a “poor fit” (Browne & Cudeck, 1989). The Comparative Fit Index (CFI) and the Tucker–Lewis index (TLI) measure the relative reduction in model misfit when comparing the target model to a baseline (independence) model. CFI and TLI values greater than .90 are an indication of acceptable model fit to the observed data. We reported the χ^2, CFI, TLI, and RMSEA.

Second, we checked the correlation between the two factors of retirement stereotypes: mental and physical health, and expected a moderately-high correlation. To avoid multicollinearity, we ran separate Cox regression models for mental and physical well-being to test each factor's association with all-cause mortality, controlling for covariates. Third, for the two types of retirement stereotypes, we performed Kaplan–Meier analyses to assess differences in survival between positive and negative thinkers. Both curves were compared using the log-rank statistic.

Results

Confirmatory Factor Analysis

Consistent with previous studies, we achieved a good fit for the two-factor structure of retirement stereotypes in our sample, χ^2 (76) = 621.32, CFI = .92, TLI = .89, RMSEA = .07. The two factors are retirement stereotypes toward mental well-being, and retirement stereotypes toward physical well-being. Given that both factors were highly correlated at r = 0.6, p < .001, we ran separate Cox regression models to avoid multicollinearity.

Description of Sample by Retirement Stereotypes

When categorizing participants into positive and negative retirement stereotypes, we were surprised that the majority of our sample espoused negative retirement stereotypes: 76% were negative about physical health, and 77% about mental health during retirement. These stereotypes were not different by age, gender, race, marital status, education, work attitudes, functional health, and self-rated health (see Tables 1 and 2). Importantly, we found no bias of employment status on retirement stereotypes, meaning that retirement stereotypes are not significantly different for those before and after retirement. Cox Regression and Kaplan–Meier Analysis

As predicted, Cox regression (Table 3) elucidated that positive retirement stereotypes toward mental healthwas protective against all-causemortality (hazard ratio = 0.87, p = .034), supporting Hypothesis 1. Every unit increase, that is, more positive stereotypes about mental health, decreased the risk of mortality by 13% after controlling for age, gender, race, marital status, employment, education, work attitudes, functional health, and self-rated health. Other significant predictors of mortality in the sample: older participants evidenced higher risk of mortality (hazard ratio = 1.07, p = .0001), females face lower mortality risks than males (hazard ratio = 0.68, p = .0001), better self-rated health is associated with lower mortality risk (hazard ratio = 0.79, p = .0001), and more positive work attitudes are associated with decreased mortality risk, (hazard ratio = 0.89, p = .044). Next, we performed a Kaplan–Meier analysis to examine differences in survival between groups (see Figure 1). At the

52nd percentile, participants with positive stereotypes toward mental health had a survival benefit of 2.5 years relative to those with negative stereotypes (log-rank test: $\chi^2 = 7.28$, $p = .007$).

With respect to retirement stereotypes toward physical health (Table 4), we found it to be protective against mortality (hazard ratio = 0.88, $p = .022$), supporting Hypothesis 2. Every unit increase, that is, more positive stereotypes about physical health, decreases the risk of mortality by 12% after controlling for gender, age, race, marital status, education, employment, work attitudes, functional health, and self-rated health. Other significant predictors of mortality are similar to those of stereotypes toward mental health (see Table 2). A Kaplan–Meier analysis found that participants with positive stereotypes toward physical health had a survival benefit of 4.5 years relative to those with negative stereotypes (log-rank test: $\chi^2 = 20.16$, $p < .0001$) at the 54th percentile (see Figure 2).

We repeated both the Cox regression and Kaplan–Meier analyses on the reduced sample ($N = 565$)—deleted list-wise due to missing data on race and employment—and found similar patterns of results. Stereotypes toward physical health during retirement was protective against mortality (hazard ratio = 0.81, $p = .006$); stereotypes toward mental health during retirement was also protective of mortality (hazard ratio = 0.77, $p = .004$), controlling for similar covariates.

Discussion

Unlike previous studies that treated retirement as merely a change in job status, we assessed stereotypes toward this transition, and found a significant association with mortality risk after adjusting for age, gender, race, marital status, employment status, years of education, work attitudes, functional health, and self-rated health. Specifically, we investigated how different themes of retirement stereotypes (mental and physical), and the cross-categorization with stereotypic value (positive and negative) impact mortality. Participants who espoused positive stereotypes about mental and physical health during retirement lived longer than negative thinkers, 2.5 and 4.5 years respectively. Another novel finding is that positive work attitudes are associated with decreased mortality risk, though its impact is smaller than retirement stereotypes, and retirement stereotypes predicted longevity adjusting for work attitudes.

These findings underscore the importance of studying stereotypes toward major life transitions like retirement, and make two theoretical contributions. First, we contributed to the psychosocial approach to aging by showing that beyond positive age stereotypes (Levy, 2009), positive work attitudes and retirement stereotypes toward physical and mental health are also protective against mortality. In essence, the stereotype embodiment theory (SET) provides four tenets to explain our findings: (a) retirement stereotypes are likely part of the many concepts that we take in at a young age and are internalized across the lifespan; (b) operates unconsciously; (c) gain salience from self-relevance especially near retirement; (d) employ multiple mediating pathways to impact mortality. Construed based on age stereotypes, we also show that SET can be extended to explain how retirement stereotypes influence mortality risk.

Our second contribution is showing that retirement stereotypes consist of two components, and both are protective against mortality risk. Previous studies considered retirement stereotypes as a single entity without examining their multifactorial nature (Eagly & Chaiken, 1993; Franca, 2004). It is possible that these different components work via different pathways to impact mortality. Drawing from previous studies, potential mediators include better adjustment (Rosenkoetter & Garris, 1998), greater will to live (Levy et al., 2002), aging anxiety (Ramírez & Palacios-Espinosa, 2016), and depression (Bai, Lai, & Guo, 2016) for the mental health-mortality link. On the other hand, positive health behaviors (Levy, Ng, Myers, & Marottoli, 2004) are potential mediators of the physical health-mortality link. Future studies should test these ideas.

One potential limitation is the (in)stability of retirement stereotypes over time. Goudy, Powers, Keith, and Reger (1980) measured retirement stereotypes of 1,152 participants who were 50 years and employed. Ten years later, they found no significant changes in attitudes. Though retirement stereotypes were shown to be stable, negative stereotypes may be a result of poor health rather than what one thinks about retirement. To reduce this likelihood, we controlled for ratings of functional health, and self-rated health in our model.

Given the harmful effects of negative retirement stereotypes on survival, it is essential to think about changing mindsets. We were somewhat taken aback by the majority of participants expressing negativity toward physical and mental health during retirement. The numbers underscore the state of ageism as perpetuated by the media and society (Dennis & Thomas, 2007; Ng, Allore, Trentalange, Monin, & Levy, 2015). Importantly, the negativity of retirement stereotypes did not differ across age groups in the sample, suggesting that it is not a cohort effect but an entrenched attitude toward retirement.

This highlights an emerging social issue that elders are both psychologically ill-prepared for retirement and generally negative about it. This is worrisome because negative attitudes toward retirement are associated poorer health and higher mortality risk. That baby boomers are retiring in record numbers will only exacerbate this social issue. To manage this social issue, there is a need for social policies that promote retirement preparation, specifically focusing on psychological well-being: examine current retirement stereotypes and promoting the adoption of positive mindsets with regard to mental and physical health during retirement. These social policies lay the ground work for preventive health and resilience against mortality and ill health during retirement.

On the societal front, as negative retirement stereotypes are internalized, in part, from the media, we recommend that guidelines can be drafted to minimize the tendency to portray older adults negatively, especially in a medicalized manner where elders are discussed alongside medical terms and chronic conditions (Ng et al., 2015). Instead, we encourage writing about positive aspects—kindness, perseverance, and successful aging—to balance increases in negative reporting of the elderly. Overtime, these positive age stereotypes could be internalized to promote greater appreciation for an increasingly graying population and better public health.

Despite the American context of the present study, related studies bolster its relevance across cultures. Löckenhoff et al. (2009) found that age stereotypes are mostly negative across 26 countries with striking similarity in content. Moreover, other studies in this issue reported links between negative age stereotypes and psychopathology: aging anxiety (Ramírez & Palacios-Espinosa, 2016) and depression (Ng, Ang, & Ho, 2012; Bai et al., 2016). Taken together, the relevance of retirement, consistent prevalence of age stereotypes and its negative impact, underscore the need to study the stereotypes of retirement, and its impact on health and longevity across cultures. While the impact of negative stereotypes on retirement health is expected, the mediators may differ across cultures. Future studies could expand on this important line of inquiry.

In conclusion, our findings make a case for social policies that promote retirement preparation, specifically focusing on psychological rather than just financial well-being. The former can be easily and realistically implemented in existing programs: help elders plan for activities during retirement that provide meaning, and self-worth. Besides building a nest egg, psychological well-being should feature prominently in recommendations for a good retirement.

Biography

REUBEN NG is a Visiting Research Scientist at the Yale School of Public Health and adjunct Senior Research Fellow at the Nanyang Technological University. He received a PhD in Epidemiology & Public Health with a Gerontology focus from Yale University as an International Fulbright Science and Technology Scholar, and a MSc (Distinction) in Management Research from Oxford University. His research interests are in aging, resilience, culture, and Psychomics—the study of societal stereotypes via high throughput semantic data.

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Levy's research explores psychosocial factors that influence elders' cognitive and physical functioning, as well as their longevity. She is credited with creating a field of study that focuses on how positive and negative age stereotypes, which are assimilated from the culture, can have beneficial and adverse effects, respectively, on the health of older individuals.

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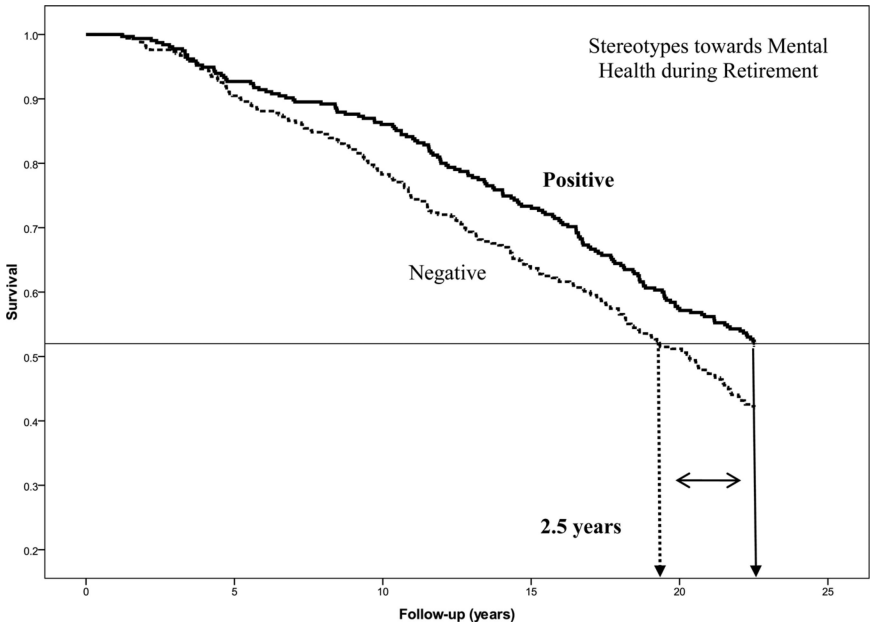

Fig. 1.

Influence of positive stereotypes toward mental health during retirement on survival. At the 52nd percentile, survival difference was 2.5 years apart.

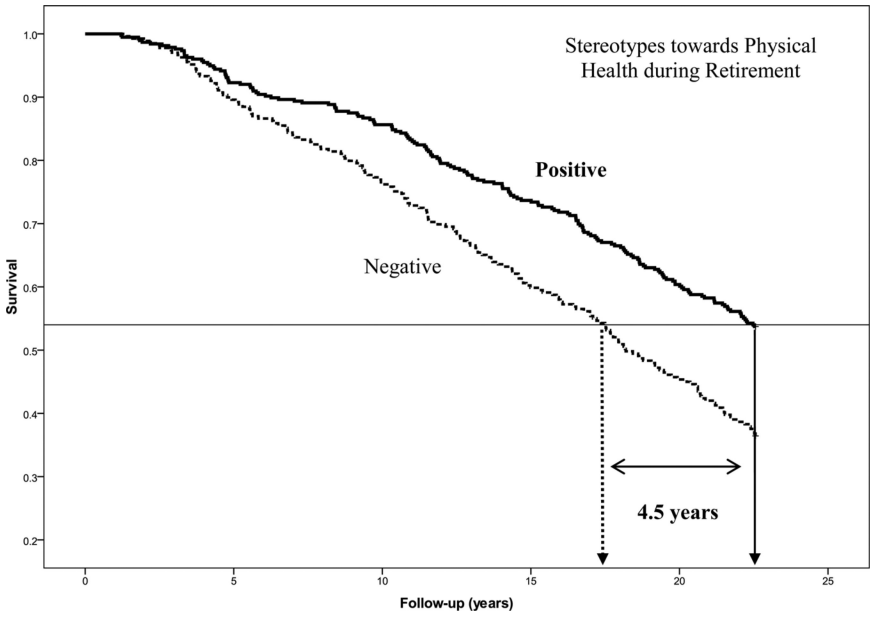

Fig. 2.

Influence of positive stereotypes toward physical health during retirement on survival. At the 54th percentile, survival difference was 4.5 years apart.

Table 1

Description of the Sample According to Participants' Stereotypes toward Physical Health during Retirement

	Retirement stereotypes toward physical health		
	Negative	**Positive**	
Characteristic	(*N* = 770)	(*N* = 241)	*p* [1]
Age (years)	64.72	64.09	.379
Sex			.450
Male	327	109	
Female	443	132	
Race			.771
Whites	579	176	
Non-Whites	27	10	
Undisclosed	164	55	
Employment			.084
Retired	266	88	
Employed	254	92	
Housewife	18	8	
Undisclosed	232	53	
Marital status			.146
Single	53	21	
Married	467	151	
Widowed	219	54	
Divorced/separated	31	15	
Self-rated health	4.02	3.96	.288
Work attitude	4.04	4.07	.569
Functional health	1.91	2.00	.265

Note. Table values are mean ± *SD* for continuous variables and *n* for categorical variables.

[1]The *p* value is for t-test (continuous variables) or χ^2 test (categorical variables).

Table 2

Description of the Sample According to Participants' Stereotypes toward Mental Health during Retirement

	Retirement stereotypes toward mental health		
	Negative	**Positive**	
Characteristic	(*N* = 782)	(*N* = 229)	*p* [1]
Age (years)	64.49	64.83	.640
Sex			.734
Male	335	101	
Female	447	128	
Race			.077
Whites	596	159	
Non-Whites	29	8	
Undisclosed	157	62	
Employment			.873
Retired	277	77	
Employed	264	82	
Housewife	19	7	
Undisclosed	222	63	
Marital status			.194
Single	51	23	
Married	476	142	
Widowed	220	53	
Divorced/separated	35	11	
Self-rated health	4.01	4.01	.944
Work attitude	4.03	4.08	.422
Functional health	1.92	1.97	.631

Note. Table values are mean ± *SD* for continuous variables and n for categorical variables.

[1]The *p* value is for t-test (continuous variables) or χ^2 test (categorical variables).

Table 3

Positive Stereotypes toward Mental Health during Retirement is Protective against Mortality Risk

Predictor	Hazard ratio (95% CI[1])	*p*
Retirement stereotypes toward mental health[2]	0.87 (0.76–0.99)	.034
Age	1.074 (1.06–1.09)	<.001
Gender		
Males	Reference	
Females	0.68 (0.56–0.81)	<.001
Race	1.43 (0.99–2.06)	
Whites	Reference	
Non-Whites	1.43 (0.99–2.06)	.059
Undisclosed[3]	1.27 (1.04–1.55)	.017
Marital status		
Single	Reference	
Married	1.066 (0.77–1.49)	.704
Widowed	0.84 (0.60–1.18)	.311
Divorced/separated	1.25 (0.77–2.01)	.369
Employment status		
Retired	Reference	
Employed	0.78 (0.60–1.01)	.056
Housewife	0.62 (0.30–1.27)	.190
Undisclosed[4]	0.82 (0.64–1.05)	.118
Education[5]	1.01 (0.99–1.05)	.279
Work attitudes[6]	0.89 (0.79–0.997)	.044
Functional health[7]	0.98 (0.88–1.08)	.649
Self-rate health[8]	0.79 (0.71–0.89)	< .001

Note.

[1] Confidence intervals.

[2] Higher scores denote more positive stereotypes.

[3] This category was created to include 22% of the sample missing race information.

[4] This category was created to include 28% of the sample missing employment status.

[5] Number of years of education.

[6] Higher scores represent more positive work attitudes.

[7] Higher scores indicate better functional health.

[8] Higher scores indicate better self-rated health.

Table 4

Positive Stereotypes toward Physical Health during Retirement is Protective against Mortality Risk

Predictor	Hazard ratio (95% CI[1])	*p*
Retirement stereotypes toward physical health[2]	0.88 (0.78–0.98)	.022
Age	1.07 (1.06–1.09)	<.001
Gender		
Males	Reference	
Females	0.68 (0.57–0.82)	<.001
Race		
Whites	Reference	
Non-Whites	1.40 (0.97–2.03)	.071
Undisclosed[3]	1.26 (1.04–1.54)	.021
Marital status		
Single	Reference	
Married	1.07 (0.77–1.50)	.673
Widowed	0.84 (0.60–1.18)	.322
Divorced/separated	1.24 (0.77–2.01)	.373
Employment status		
Retired	Reference	
Employed	0.77 (0.60–0.998)	.048
Housewife	0.61 (0.30–1.25)	.177
Undisclosed[4]	0.80 (0.63–1.03)	.077
Education[5]	1.02 (0.99–1.05)	.272
Work attitudes[6]	0.88 (0.79–0.993)	.038
Functional health[7]	0.98 (0.87–1.07)	.557
Self-rate health[8]	0.80 (0.71–0.90)	<.001

Note.

[1] Confidence intervals.

[2] Higher scores denote more positive stereotypes.

[3] This category was created to include 22% of the sample missing race information.

[4] This category was created to include 28% of the sample missing employment status.

[5] Number of years of education.

[6] Higher scores represent more positive work attitudes.

[7] Higher scores indicate better functional health.

[8] Higher scores indicate better self-rated health.