How Do Marital Transitions Affect Self-Perceptions of Aging?

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Abstract

Objectives: We analyzed whether marital status and experiences of marital loss or gain were associated with self-perceptions of aging (SPA), a major psychosocial mechanism of healthy aging.

Method: We used data from 7,028 participants of the Health and Retirement Study. Participants reported their marital status and their positive and negative SPA on two occasions four years apart. We ran general linear models to analyze differences in SPA between men and women who remained married, became divorced or widowed, or remarried following divorce or widowhood.

Results: Participants who experienced marital loss had lower positive SPA than participants who remained marred. Participants who experienced marital gain had lower negative SPA than participants who remained married. None of the associations differed between men and women.

Discussion: Results suggest that it may not be marital status itself, but rather the transition into or out of marriage, that impacts how people appraise their own aging.

Keywords: marriage, divorce, widowhood, self-perceptions of aging

Background

Transitions into and out of marriage in later life have garnered the attention of life course and gerontological family scholars (Carr & Utz, 2020). Longer lives and greater social acceptance of divorce have led to more diversity in marital statuses among older adults. Divorce in later life increased from 5.3% to 15% between 1980 and 2017 (Brown & Lin, 2012; Lin et al., 2018). Moreover, 57% of people aged 55 and older remarry after divorce or widowhood (Livingston, 2014). Marital status – and particularly changes in marital status (e.g., becoming divorced, widowed, remarried) – in old age may be especially salient to older adults' self-perceptions of aging (SPA). Indeed, theoretical models of subjective age position SPA as a product of factors that may be related to marital status and changes in marital status, such as life events, social support, and socioeconomic status (Diehl et al., 2014). Because positive SPA is vital for healthy aging processes (e.g., Westerhof et al., 2014), and considering the growing number of older adults experiencing divorce and remarriage, understanding how changes in marital status in late life may affect SPA is important.

Connecting Self-Perceptions of Aging & Marriage

The purpose of this study was to examine whether marital status and changes in marital status are associated with people's SPA. After Levy and her colleagues published seminal work connecting SPA to mortality (2002), gerontologists have published widely on the construct. More positive SPA is associated with healthier eating (Klusmann et al., 2017), more physical activity (Hooker et al., 2019), and lower likelihood of smoking (Hooker et al., 2019). SPA is also connected to psychological health, with poor SPA being associated with more depressive symptoms (Luo & Li, 2021) SPA is also associated with health outcomes, likely because of its connection to health behavior. Indeed, people who have worsening SPA as they get older have

declines in physical ability, functional performance, cognitive functioning, and self-rated health, and increases in the number of chronic conditions (Luo et al., 2021). Moreover, SPA plays an important role in the relationship between psychological and physical health. Witzel et al. (2021), for example, found that SPA buffered the association between daily perceived stress and physical health symptoms; results suggested that having higher SPA decreased the impact of perceived stress associated with daily physical health symptoms like fatigue, mobility issues, nausea, and tightness in chest. Poor SPA is associated with increased rates of hospitalization (Sun et al., 2017) and mortality (Levy et al., 2002). The negative health consequences from poor self-perceptions of aging are estimated to cost adults over 60 in the United States $33.7 billion (Levy et al., 2020).

Ultimately, SPA impacts self-regulatory processes which, in turn, shape developmental outcomes such as functional health, longevity, and psychological well-being in later life in ways that have personal and social-level consequences. In response to the robust literature connecting SPA to healthy aging, scholars have studied the psychosocial processes that shape the formation of SPA. That work has led to a recognition that SPA is a product of interactions between cultural and social level processes and individual psychological processes (Palgi et al., 2021). Diehl and colleagues (2014) describe SPA as a product of (a) life events and experiences, (b) social support, (c) cultural images, norms, and expectations of aging and (d) material/financial assets – all of which impact or are impacted by marital status and marital status transitions.

Recent empirical work suggests that a person's SPA is impacted by their spouse's or partner's SPA. Mejía and colleagues found that spouses influence each other's SPA, creating a couple-level shared set of beliefs about aging that impact – and are impacted by – each other's physical health (Mejía & Gonzalez, 2017; Mejía et al., 2020). Further, Kim and colleagues

(2021) analyzed how spousal quality and individual health impact self-perceptions of aging among couples. The authors found that spousal strain and chronic conditions were associated with husbands' SPA, but functional limitations were associated with wives' SPA. These studies focusing on within-marriage differences or similarities in SPA display the saliency of spouses to an individual's appraisal of their aging self and underscore the possibility that the loss or gain of a spouse may lead to changing SPA.

Gender Differences & Positive SPA versus Negative SPA

Given the research highlighting gender differences in demographic trends and subjective experiences of (re)marriage, divorce, and widowhood in later life, any connections between marital status and SPA are possibly dependent on a person's gender. Both marriage and aging are highly gendered. Indeed, "doing marriage" is a mechanism to "do gender" (Dryden, 2014), and the intersection of age and gender impacts dynamics of later life partnerships such as spousal caregiving (Calasanti, 2019). A lot of research suggests that gendered experiences of aging impact a person's subjective aging experiences (Barrett & Toothman, 2018; Kornadt et al., 2013). Moreover, it is now recognized that SPA is comprised of positive and negative dimensions that differ between men and women; women have lower negative SPA, but no different positive SPA, than men (Turner et al., 2021). Positive and negative dimensions differentially impact health behavior (Hooker et al., 2019), as well as outcomes. Brown and colleagues (2021), for example, found that positive, but not negative, SPA predicted cognitive functioning amongst older adults. Likewise, a recent study showed that gain-related (i.e., positive) SPA, but not loss-related (i.e., negative) SPA was associated with mortality 23 years later (Wurm & Schäfer, 2022). Because marriage is so highly gendered, marital status transitions differ demographically by gender, and men and women experience positive and negative SPA in

different ways, studying gender differences in marital status transitions and their connections to positive and negative SPA, specifically, rather than SPA in general, is important.

The Present Study

Ultimately, marital status, and its intersection with gender, are individual-level variables that carry social meaning in ways that we hypothesize can shape how older adults judge their own aging. With increasing numbers of older adults experiencing marital losses and gains, and with SPA becoming increasingly known as a salient factor for healthy aging processes, understanding how marital status transitions are associated with SPA can add context to the mechanisms by which marriage impacts well-being in later life. Further, with the salience of gender to marital roles, this study aims to add to the literature by exploring how transitions in marital status and SPA associations may be gendered. In this study, we utilize longitudinal data from the Health and Retirement Study (HRS) to examine how different marital statuses, and changes in marital status, are associated with SPA and how gender may impact these associations. Given previous mixed findings in the literature, our research questions are exploratory:

(RQ1) How is marital status associated with positive and negative SPA?

(RQ1a) Do the associations differ between men and women?

(RQ2) How is marital gain and marital loss associated with changes in SPA compared to remaining married over a four-year period in later life?

(RQ2a) Do the associations differ between men and women?

Method

Sample

For this study we used data from the 2010, 2012, 2014, and 2016 waves of the HRS, a longitudinal, nationally representative panel study of approximately 20,000 people in the United States (Health and Retirement Study, 2020[a]). The HRS is sponsored by the National Institute on Aging (grant number NIA U01AG009740) and is conducted by the University of Michigan. The HRS rotates the psychosocial Leave-Behind Questionnaire (LBQ), which contains the self-perceptions of aging measure, every four years from two subsamples – deemed *Subsample A* and *Subsample B* (Smith et al., 2017). To increase our sample size, we combined Subsample A and Subsample B to create *Wave 1* (2010 from Subsample A and 2012 from Subsample B) and *Wave 2* (2014 from Subsample A and 2016 from Subsample B), as has been done in various other studies using these data (e.g., Huo et al., 2020). Because the HRS collects data at the household level, individual participants often have a spouse/partner also in the study. To ensure that our analysis was not skewed from data being non-independent, we randomly selected one person from each household using SAS PROC SURVEYSELECT. Ultimately, the analytic sample for this study included 7,028 participants who (a) completed the self-perceptions of aging questionnaire, (b) were at least 50 years of age or older, and (c) were either married, divorced, or widowed in both waves.

Measures

Outcome Variable: Self-perceptions of aging (SPA)

HRS participants completed an eight-item measure of self-perceptions of aging as a component of the Leave Behind Questionnaire. The eight-item scale includes the five-item Attitudes Towards One's Own Aging subscale within the Philadelphia Geriatric Scale (Lawton,

1975) and three items from the Berlin Aging Study (Baltes & Mayer, 2001). For each of the

eight items, participants responded on a Likert scale from 1 (*strongly disagree*) to 6 (*strongly*

agree).

In line with recent work parsing out a two-factor positive SPA and negative SPA

structure in the eight item SPA measure (Turner et al., 2020), we separated the eight-items into

two four-item scales. Items for the positive subscale are: (1) "I have as much pep as I did last

year," (2) "I am as happy now as I was when I was younger," (3) "As I get older, things are

better than I thought they would be," (4) "So far, I am satisfied with the ways that I am aging."

Items for the negative SPA subscale are: (1) "Things keep getting worse as I get older," (2) "The

older I get, the more useless I feel," (3) "The older I get, the more I have had to stop doing things

that I liked," (4) "Getting older has brought with it many things that I do not like." Participants

responded to each question in a 6-point Likert scale ranging from 1 (*strongly disagree*) to 6

(*strongly agree*). We averaged all 4 individual items for each subscale; both the positive subscale

and the negative subscale ranged from 1 to 6, with 1 being lower positive SPA or lower negative

SPA and 6 being higher positive SPA or higher negative SPA. Cronbach's alpha for the Wave 2

positive SPA scale and the Wave 2 negative SPA scale were .79 and .76, respectively.

Predictor Variables: Marital Status and Marital Status Transition

To measure marital status, we utilized the "marital status assigned" variable, which is an

HRS-assigned variable created from six other marital or partnership variables (i.e., "*Is*

[Spouse's/Partner's First Name] still alive? (from previous wave)" and *"Did you divorce or*

become widowed since [Previous Wave Month], [Previous Wave Year]?") Assigned marital

status options were married, annulled, separated, divorced, widowed, never married, other

(specify), don't know/not ascertained, refused, or inapplicable. For this study, we created a sub-

sample of participants who were either married, divorced, or widowed in both Wave 1 and Wave 2, and considered marital status a categorical variable, coding married as 0, divorced as 1, widowed as 2. We then created a "marital status transition" variable for each participant using their marital status in Wave 1 and Wave 2, ultimately collating participants who lost a spouse through divorce or widowhood into a single "loss" category and participating who became married into a single "gain" category. All participants who remained married between the two waves were collated into a single "remained married" group.

Covariates

We identified covariates theorized and empirically known to influence SPA (e.g., Diehl & Wahl, 2010). The covariates gender, age, self-rated health, and whether the participant had a spouse/partner in the study were all from each participant's second wave. The covariates race and years of education were variables that HRS did not measure at every wave (to minimize burden on participants). Therefore, we utilized the 2016 RAND Longitudinal Fat File (Health and Retirement Study, 2020[b]) which computes selected participant demographics from previous waves of the study, to capture those demographics.

Gender. Interviewers asked respondents to confirm their gender of either male or female. Other genders were not asked about in the interviews. We coded *male* (0) and *female* (1).

Age. In the HRS dataset, age (in years) is calculated by subtracting the respondents' birthdate from the day of the interview.

Race. HRS participants can denote their race via several interview questions. To consider race in this study, we utilized the following question which prompts respondents to denote their "primary" race: *Do you consider yourself primarily White, Black/African American, American Indian, Alaska Native, Asian, Native Hawaiian, Pacific Islander, or Other.* HRS combines

American Indian, Alaska Native, Asian, Native Hawaiian, Pacific Islander, and Other

participants into a single Other category in order to protect participant confidentiality. In line

with HRS, we coded race as White, Black, or Other.

Education. Participants denoted their total years of ranging from *no formal education* (0)

to *post college* (17).

Self-rated health. Interviewers asked participants' self-rated health with the question:

Would you say your health is excellent, very good, good, fair, or poor? We coded as follows:

poor (1), *fair* (2), *good* (3), *very good* (4), and *excellent* (5).

Financial strain. Interviewers asked participants to report whether or not they had

current and ongoing financial strain that lasted twelve months or longer and if financial strain

was happening, how upsetting it had been. Response items, and our coding, were as follows: (1)

No, didn't happen, (2) *Yes, but not upsetting*, (3) *Yes, somewhat upsetting*, (4) *Yes, very*

upsetting.

SPA at Wave 1. All models also control for SPA at Wave 1. Models predicting positive

SPA control for positive SPA at Wave 1, and models predicting negative SPA control for

negative SPA at Wave 1.

Analytic Strategy

We completed all analyses in SAS version 9.04. We first summarized sample

characteristics, assessed the number of participants in each marital status category, and ran

correlations of all study variables. We then ran general linear models using PROC GLM with

pairwise comparisons and contrast commands (SAS Institute Inc., 2005). We ran each model

twice, once for positive SPA and once for negative SPA. We accounted for multiple pairwise

comparisons via Scheffe's method because of the uneven sample sizes across groups.

Results

Participants' ages ranged from 52-104, with a mean age of 70 years ($SD = 10.06$). Sixty-three percent were women. Seventy-eight percent were White, 16% were Black, and 6% fell into the Other race category. Seventy-five percent considered their health to be "excellent," "very good," or "good." Eighty-four percent had 12 or more years of formal education. Fifty-eight percent reported no financial strain in the last twelve months. Table 1 provides the sample sizes and demographics for each marital status by Wave 1, Wave 2, and marital status transition between the two waves. Table 2 provides correlations among all the main study variables.

(RQ1) How is SPA associated with marital status?

Least-squares means adjusted via Scheffe's method for each group were as follows: For positive SPA, participants who were married had a mean of 4.09 ($SD = 0.02$), participants who were divorced had a mean of 4.11 ($SD = 0.03$), and those who were widowed had a mean of 4.05 ($SD = 0.03$). For negative SPA, participants who were married had a mean of 3.26 ($SD = 0.02$), participants who were divorced had a mean of 3.23 ($SD = 0.03$), and those who were widowed had a mean of 3.24 ($SD = 0.03$).

Positive SPA. Marital status was not significantly associated with positive SPA, $F_{(2, 6753)} = 3.24$, $p = 0.19$. Pairwise comparisons revealed no significant differences between married and divorced participants ($p = 0.64$), married and widowed participants ($p=0.12$), or divorced and widowed participants ($p = 0.10$). The association between marital status and positive SPA was not dependent on gender ($p = 0.13$). Omnibus model results, including estimates for covariates, are available in Table 3.

Negative SPA. Marital status was not significantly associated with negative SPA, $F_{(2, 6751)} = 1.09$, $p = 0.54$. There were no significant differences between married and divorced

participants ($p = 0.31$), married and widowed participants ($p=0.46$), or divorced and widowed participants ($p = 0.77$). The association between marital status and negative SPA was not dependent on gender ($p = 0.37$). Omnibus model results, including estimates for covariates, are available in Table 3.

(RQ2) How are marital transitions – both losses and gains – associated with SPA compared to remaining married during a four-year period in later life?

Least-squares means adjusted via Scheffe's method for each group were as follows: For positive SPA, participants who remained married had a mean of 4.16 ($SD = 0.03$), participants who experienced marital loss had a mean of 4.07 ($SD = 0.04$), and those who experienced marital gain had a mean of 4.17 ($SD = 0.08$). For negative SPA, participants who remained married had a mean of 3.17 ($SD = 0.02$), participants who experienced marital loss had a mean of 3.13 ($SD = 0.04$), and those who experienced marital gain had a mean of 2.99 ($SD = 0.08$).

Positive SPA. Marital status transition type was not significantly associated with positive SPA in the omnibus model, $F_{(2, 4164)} = 4.60$, $p = 0.09$. But pairwise comparisons revealed that participants who experienced marital loss had significantly lower positive SPA than participants who remained married (Estimate = -0.10, $SE = 0.04$, t = 2.19, $p = 0.03$). There were no significant differences in positive SPA between participants who experienced marital gain and who remained married ($p = 0.91$), nor between participants who experienced marital gain and who experienced marital loss ($p = 0.26$). The association between marital status transition type and positive SPA was not dependent on gender ($p = 0.69$). Omnibus model results, including estimates for covariates, are available in Table 4.

Negative SPA. In the omnibus model, marital status transition type was significantly associated with negative SPA, $F_{(2, 4162)} = 5.11$, $p = 0.04$. Pairwise comparisons revealed no

significant differences in negative SPA between participants who experienced marital loss and participants who remained married (p = 0.28). Participants who experienced marital gain had significantly less negative SPA than participants who remained married (Estimate = -0.18, *SE* = 0.08, t = 2.34, p = 0.02). Participants who experienced marital gain had no different negative SPA than participants who experienced marital loss (p = 0.11). The association between marital status transition type and positive SPA was not dependent on gender (p = 0.71). Omnibus model results, including estimates for covariates, are available in Table 4.

<center>*< Figure 1 about here>*</center>

Post-Hoc Analysis

In our main analyses we collated groups to be concise in our analyses of loss versus gain transitions in marital status; however, we recognize that different types of losses and gains may not be similarly influential on SPA. For example, Lin and colleagues' (2019) found that later life divorcees had fewer depressive symptoms and a quicker recovery of depressive symptoms than widows. Such psychosocial differences post-divorce versus post-widowhood would impact how a person considers their own sense of self. As such, after conducting our main analyses we analyzed differences between the two types of losses – divorce and widowhood. We created a new three-category marital status transition variable: remained married, married to divorce, married to widowed. With that new variable, we ran general linear models in SAS PROC GLM with group-by-group pairwise comparisons, just as with our main analyses but with these different categorical groups. Post hoc results revealed that participants who became divorced had no different positive SPA than participants who became widowed (p = 0.73). However, participants who became divorced had higher negative SPA than participants who became widowed (Estimate = 0.24, *SE* = 0.11, *t* = 2.09, p = 0.04). The became divorced category had a

small sample size (*n* = 74), so results from the post hoc analysis are simply suggestive. Nonetheless, they offer insight into possible differences between divorce and widowhood as it pertains to SPA.

Discussion

This study offers empirical evidence for the theoretical proposition that marital status is a demographic factor that can influence a person's SPA. Specifically, results suggest that it may not be marital status itself, but rather the transition into or out of marriage, that impacts how people appraise their own aging. Thus, it is possible that the demographic characteristics theorized as influencers of SPA are more salient to SPA when they are paired with life events and transitions. Moreover, our use of both positive SPA and negative SPA offered a more detailed understanding of how transitions in marital status uniquely impact different types of aging perceptions. Indeed, how a marital status transition impacted SPA varied not only based on the type of transition (i.e. gain or loss), but also the valence of SPA. Altogether, the findings provides insight into the nuanced ways in which marital status shapes SPA, and suggest that the transition into and out of marriage may be a "sensitive period" during which people examine their aging self.

Marital Loss and Decreases in Positive SPA

Wurm & Schäfer (2022) recently found that gain-related (i.e., positive) SPA, but not loss-related (i.e., negative) SPA, was associated with mortality 23 years later. As such, reductions in positive SPA following a marital loss may have serious health-related consequences despite not being paired with increases in negative SPA. Identifying the extent to which marital loss actually impacts health and well-being via SPA and would offer a bridge between literature on SPA and the literature on social relationships and health. Specifically, understanding why marital loss

impacts positive, but not negative SPA, can offer nuance to broader theory on the differences between positive and negative SPA.

Some subjective aging scholars consider positive views on aging to be more connected to psychological well-being than are negative views on aging, which they posit are more associated with physical health (Palgi et al., 2021). Through this lens, marital loss's association with decreases in positive SPA, but no differences in negative SPA, may be indicative of marital loss being primarily a psychological stressor rather than a physical one. Yet, psychological stressors and physical stressors are deeply interwoven, and marital loss in later life is associated with worsening physical health (Bookwala et al., 2014; Das, 2013). Recent empirical work (Monin et al., 2019) suggest that changes in one partner's health are strongly predictive of changes to the other partner's, and the longstanding "widowhood effect" theory (Elwert & Christakis, 2008) encapsulates how the loss of a partner can not only impact morbidity, but also mortality. Thus, marital loss impacts physical health, too, and the health effects after marital loss that can be associated with SPA is an area deserving of future research.

Marital Gain and Decreases in Negative SPA

Additionally, participants who reported a marital gain had significantly less negative SPA than participants who remained married. A recently married older adult may feel youthful from the dating and early-marriage experience, which may make them feel less negatively about their own aging. Indeed, research suggests that older daters seek youthful appearance and try to convey it themselves (McWilliams & Barrett, 2014).

An item on the negative SPA scale was related to purpose ("The older I get, the more useless I feel") and another was related to activity engagement ("The older I get, the more I have had to stop doing things that I liked"). Research shows that older adults who are married report

greater purpose (Pinquart, 2022). Moreover, the absence of a spouse creates a barrier to leisure activity (Lee et al., 2018), and the instrumental and emotional support of a new partner may allow older adults to re-start or continue activities they enjoy. Therefore, it is possible that marital gain in later life supports older adults' sense of purpose and ability to engage in activities they enjoy, thus their negative SPA (as it was measured in this study) declined.

Divorce Versus Widowhood

Although our main analyses collated gain and loss groups together (e.g., married to widowed and married to divorced grouped together in a single "loss" category), the post hoc analyses disaggregated between the type of loss. Thus, the post hoc analysis allowed us to capture any differences between transitions into divorce versus into widowhood; these analyses revealed significant differences between divorce and widowhood. It is possible that all losses are not equal, but rather how the loss occurs (via divorce or widowhood) matters to SPA. The finding is also in line with empirical literature suggesting widowhood is more challenging than divorce. Lin and colleagues' (2019), for example, showed that later life divorcees had fewer depressive symptoms and a quicker recovery of depressive symptoms than widows.

Moreover, they revealed that participants who experienced a transition to widowhood had worse positive SPA than participants who remained married, but that participants who became divorced had no different positive SPA to participants who remained married or who became widowed. In contrast to the results from our main analyses, however, becoming divorced was associated with higher negative SPA than remaining married or becoming widowed. One fruitful avenue for future research may be analyzing whether differences in widowhood and divorce depend on the person's social network, as researchers have recently identified social networks as closely connected with SPA (Cohn-Schwartz et al., 2021).

Gender Similarities

Despite notable gendered patterning of marital transitions in later life, and despite the longstanding literature that men and women cope with marital loss differently (Lee & DeMaris, 2007; Lee et al., 1998) the impact of the marital status on SPA did not appear to significantly differ between women and men. The literature on subjective age experiences across gender could be helpful in sorting out gender differences – or a lack thereof – in our study and in future studies connecting marital status and SPA. Scholarship on gender and subjective age is mixed. For example, Lytle and colleagues (2018) found that women have more anxiety about aging, yet Turner and colleagues (2020) found that women have lower negative SPA than men. Discrepancies such as these speak to the nuance of subjective aging constructs that is often difficult – yet vital – to parse. It is possible that there is a gender paradox in self-perceptions of aging: aging women have historically been judged more harshly than aging men, often because of sexism surrounding physical appearances (Calasanti, 2005; De Beauvoir, 1996; Sontag, 1997), but their self-perceptions of aging may be no different than men's. Our study is just a small step in answering calls for scholars to consider gender differences more deeply in SPA (Rothermund & Kornadt, 2015; Turner et al., 2020).

Limitations and Future Directions

It is important to acknowledge the limitations of our study, many of which can be addressed in future research. First, whereas the purpose of this study was to identify group-level differences, we suggest future studies examine the experiences of marital loss more closely via microlongitudinal analyses. Indeed, the four years between waves in this study did not capture the actual day-to-day experience of losing or gaining a marriage, nor of how those experiences impact SPA on a shorter-term basis. Research on divorce in later life depicts older divorcees as

having mixed feelings post-divorce. Following a divorce, older adults report sadness, frustration, and anger alongside acknowledgements of self-growth and freedom (Canham et al., 2014). The immediate loss could cause short-term strain, but in the long-term adults may adjust in ways that render them thinking just as positively about their aging selves as married adults. As such, researchers should explore when the marital loss occurred and how the duration since the event may differentially impact SPA. Such analyses may include comparing people who become divorced or widowed over a given time frame to those who remain divorced or widowed. Should additional research show that marital transitions are more salient to SPA than marital status itself, it is possible that marital status transition (gain, loss, remained married) is a more relevant covariate in statistical models predicting SPA. Moreover, new research sheds light on the extent to which subjective aging experiences have high intraindividual variability (Bellingtier et al., 2021; Zhang & Neupert, 2021). Researchers should consider whether those short-term changes in SPA following a transition have long-term benefits or consequences, especially considering the literature showing that SPA at one time point impacts health behavior and outcomes years later.

Additionally, we were unable to analytically compare people who were cohabitating (a rising trend in later life, Brown, et al., 2012), nor those who were never married or who were otherwise single. We were also unable to include sexual orientation in our statistical model. People in these diverse partnership statuses likely have experiences that uniquely impact their SPA. Future work should consider such older adults, especially those who marry for the first time in later life. Moreover, in this study we operationalize gender as a binary between men and women, and in this manuscript, we discuss gender relations as between men and women. The experiences of marriage for older adults of other genders outside of male and female are

important and can offer context to this study. But because of dataset limitations, they are outside

of this study's current realm. Future research would, ideally, consider LGBTQ older adults

(Harley & Teaster, 2016).

     Lastly, our measure of positive and negative SPA were general ones that did not probe

participants' appraisals of their aging in specific domains of their lives. Recent literature supports

the notion that SPA can vary across different domains (Kornadt et al., 2020). A person may have

high negative SPA related to their health, but high positive SPA related to their family

relationships, and it would be important in future research to determine whether changes to

someone's spouse/partnership status impact not only their spouse/partner-related SPA, but also

other domains of SPA such as health, friendships, and finances. Such analyses would also offer

additional nuances necessary for fully understanding how SPA operates to impact well-being.

Conclusion

People evaluate their own aging self against the age-related norms and expectations that

are learned and reinforced from social interaction, social cues, and social comparisons. In this

study, we asked whether marital status – an individual sociodemographic variable that carries

deep social meaning – and whether marital status transitions are associated with SPA, and we

questioned whether those associations may differ between men and women. In so doing, we

sought to contextualize the importance of marital status to better understanding how men and

women evaluate their own aging. We found that marital status itself was not associated with

SPA, but that experiences of marital loss leads to decreases in positive SPA. As more people are

experiencing marital status transitions, especially marital loss, in later life, it will be important

for marriage and family scholars, developmental scholars, and professionals to consider ways to

support adults' positive sense of self – particularly their appraisals of their aging self – during and after such transitions.

References

Balkwell, C. (1981). Transition to widowhood: A review of the literature. *Family Relations*, 117-127.

Baltes, P. B., & Mayer, K. U. (Eds.). (2001). *The Berlin aging study: Aging from 70 to 100*. Cambridge, UK: Cambridge University Press.

Barrett, A. E., & Toothman, E. L. (2018). Multiple "old ages": The influence of social context on women's aging anxiety. *The Journals of Gerontology: Series B*, *73*(8), e154-e164. doi: 10.1093/geronb/gbx027

Bellingtier, J. A., Rupprecht, F. S., Neupert, S. D., & Lang, F. R. (2021). Daily experiences of subjective age discordance and well-being. *Psychology and Aging*, 36(6), 744–751. doi:10.1037/pag0000621

Bookwala, J., Marshall, K. I., & Manning, S. W. (2014). Who needs a friend? Marital status transitions and physical health outcomes in later life. *Health Psychology*, *33*(6), 505-515. doi:10.1037/hea0000049

Brown, K. E., Kim, J., Stewart, T., Fulton, E., & McCarrey, A. C. (2021). Positive, but not negative, self-perceptions of aging predict cognitive function among older adults. *The International Journal of Aging and Human Development*, 93(1), 543-561. doi:10.1177/0091415020917681

Brown, S. L., & Lin, I. F. (2012). The gray divorce revolution: Rising divorce among middle-aged and older adults, 1990–2010. *The Journals of Gerontology: Series B*, *67*(6), 731-741. doi:10.1093/geronb/gbs089

Brown, S. L., Bulanda, J. R., & Lee, G. R. (2012). Transitions into and out of cohabitation in

later life. *Journal of Marriage and Family*, *74*(4), 774-793. doi:10.1111/j.1741-

3737.2012.00994.x

Calasanti, T. (2005). Ageism, gravity, and gender: Experiences of aging

bodies. *Generations*, *29*(3), 8-12.

Calasanti, T. (2019). On the intersections of age, gender and sexualities in research on ageing. In

A. King, K. Almack, & R.L. Jones (Eds.) *Intersections of Ageing, Gender and Sexualities*

(pp. 13-29). Policy Press. doi:10.1332/policypress/9781447333029.003.0002

Carr, D., & Utz, R. L. (2020). Families in later life: A decade in review. *Journal of Marriage and*

Family, *82*(1), 346-363. doi:10.1111/jomf.12609

Cohn-Schwartz, E., Segel-Karpas, D., & Ayalon, L. (2021). Longitudinal dyadic effects of aging

self-perceptions on health. *The Journals of Gerontology: Series B*, gbaa082.

doi:10.1093/geronb/gbaa082

Das, A. (2013). Spousal loss and health in late life: Moving beyond emotional trauma. *Journal of*

Aging and Health, *25*(2), 221-242. doi: 10.1177/0898264312464498

De Beauvoir, S. (1996). *The coming of age*. WW Norton & Company.

Diehl, M. K., & Wahl, H. W. (2010). Awareness of age-related change: Examination of a

(mostly) unexplored concept. *The Journals of Gerontology Series B: Psychological*

Sciences and Social Sciences, 65B(3), 340–350. doi:10.1093/geronb/gbp110

Diehl, M., Wahl, H. W., Barrett, A. E., Brothers, A. F., Miche, M., Montepare, J. M., Westerhod,

G.J., & Wurm, S. (2014). Awareness of aging: Theoretical considerations on an emerging

concept. *Developmental Review, 34*(2), 93-113. doi:10.1016/j.dr.2014.01.001

Dryden, C. (2014). *Being married, doing gender: A critical analysis of gender relationships in marriage.* Routledge. doi:10.4324/9781315787978

Elwert, F., & Christakis, N. A. (2008). The effect of widowhood on mortality by the causes of death of both spouses. *American journal of public health*, *98*(11), 2092-2098. doi: 10.2105/AJPH.2007.114348

Ervin, L. H., & Stryker, S. (2001). Theorizing the relationship between self-esteem and identity. In T.J. Owens, S. Stryker, & N. Goodman (Eds.) *Extending Self-Esteem Theory and Research: Sociological and Psychological Currents* (pp. 29-55). Cambridge University Press.

Harley D. A., Teaster P. B. *Handbook of LGBT Elders: An Interdisciplinary Approach to Principles, Practices, and Policies*. New York, NY: Springer: 2016.

Health and Retirement Study (2020)[a]. Public Survey Data. Retrieved from https://hrsdata.isr.umich.edu/data-products/public-survey-data

Health and Retirement Study (2020)[b]. RAND HRS Data Products. Retrieved from https://hrsdata.isr.umich.edu/data-products/rand

Hooker, K., Mejía, S. T., Phibbs, S., Tan, E. J., & Stevens, J. (2019). Effects of age discrimination on self-perceptions of aging and cancer risk behaviors. *The Gerontologist*, *59*(Supplement_1), S28–S37. doi:10.1093/geront/gny183

Huo, M., Miller, L. M. S., Kim, K., & Liu, S. (2020). Volunteering, self-perceptions of aging, and mental health in later life. *The Gerontologist, gnaa164*. doi:10.1093/geront/gnaa164

Kim, Y. K., Kim, K., Neupert, S. D., & Boerner, K. (2021). Changes in married older adults' self-perceptions of aging: The role of gender. *Psychology and Aging.* Advance online publication. doi:10.1037/pag0000507

Kornadt, A. E., Hess, T. M., & Rothermund, K. (2020). Domain-specific views on aging and preparation for age-related changes—Development and validation of three brief scales. *The Journals of Gerontology: Series B*, *75*(2), 303-307. doi:10.1093/geronb/gby055

Kornadt, A. E., Voss, P., & Rothermund, K. (2013). Multiple standards of aging: Gender-specific age stereotypes in different life domains. *European Journal of Ageing, 10*(4), 335-344. doi: 10.1007/s10433-013-0281-9

Kotter-Grühn, D., Kornadt, A. E., & Stephan, Y. (2016). Looking beyond chronological age: Current knowledge and future directions in the study of subjective age. *Gerontology, 62*(1), 86-93. doi:10.1159/000438671

Lawton, M. P. (1975). The Philadelphia geriatric center morale scale: A revision. *Journal of Gerontology*, *30*(1), 85-89.

Lee, G. R., & DeMaris, A. (2007). Widowhood, gender, and depression: A longitudinal analysis. *Research on Aging*, 29(1), 56-72. doi:10.1177/0164027506294098

Lee, Min, J., & Chi, I. (2018). Life transitions and leisure activity engagement in later life: findings from the Consumption and Activities Mail Survey (CAMS). *Ageing and Society*, *38*(8), 1603–1623. doi:10.1017/S0144686X1700021

Lee, G. R., Willetts, M. C., & Seccombe, K. (1998). Widowhood and depression: Gender differences. *Research on Aging*, 20(5), 611-630.

Levy, B. R., Slade, M. D., Kunkel, S. R., & Kasl, S. V. (2002). Longevity increased by positive self-perceptions of aging. *Journal of Personality and Social Psychology*, *83*(2), 261-270. doi:10.1037//0022-3514.83.2.261

Lin, I. F., Brown, S. L., Wright, M. R., & Hammersmith, A. M. (2018). Antecedents of gray

divorce: A life course perspective. *The Journals of Gerontology: Series B*, *73*(6), 1022-

1031. doi:10.1093/geronb/gbw164

Livingston, G. (2014, November 14). Chapter 2: The Demographics of Remarriage. PEW

Research Center. Retrieved from https://www.pewresearch.org/social-

trends/2014/11/14/chapter-2-the-demographics-of-remarriage/

Lopata, H. Z. (1973). Self-identity in marriage and widowhood. *The Sociological Quarterly*,

14(3), 407-418. doi:10.1111/j.1533-8525.1973.tb00869.x

Luo, M. S., & Li, L. W. (2020). Are self-perceptions of aging associated with health trajectories

among middle-aged and older adults?. *The Gerontologist*, 60(5), 841-850.

doi:10.1093/geront/gnz092

Lytle, A., Apriceno, M., Dyar, C., & Levy, S. R. (2018). Sexual orientation and gender

differences in aging perceptions and concerns among older adults. *Innovation in

Aging*, *2*(3), igy036. doi:10.1093/geroni/igy036

Manvelian, A., Bourassa, K. J., Lawrence, E., Mehl, M. R., & Sbarra, D. A. (2018). With or

without you? Loss of self following marital separation. *Journal of Social and Clinical

Psychology*, *37*(4), 297-324. doi: 10.1521/jscp.2018.37.4.297

Mattingly, B. A., McIntyre, K. P., & Lewandowski, G. W. (2020). Relationship dissolution and

self-concept change. In *Interpersonal relationships and the self-concept* (pp. 145-161).

Springer, Cham. doi:10.1007/978-3-030-43747-3_9

McWilliams, S., & Barrett, A. E. (2014). Online dating in middle and later life: Gendered

expectations and experiences. *Journal of Family Issues*, *35*(3), 411-436.

doi:10.1177/0192513X12468437

Mead, G. H. (1934). *Mind, self and society from the standpoint of a social behaviorist*. University of Chicago Press.

Mejía, S. T., & Gonzalez, R. (2017). Couples' shared beliefs about aging and implications for future functional limitations. *The Gerontologist*, *57*(suppl_2), S149-S159. doi:10.1093/geront/gnx071

Mejía, S., Giasson, H., Smith, J., & Gonzalez, R. (2020). Concurrent and enduring associations between married partners' shared beliefs and markers of aging. *Psychology and Aging, 35*(7), 925-936. doi:10.1037/pag0000515

Monin, J. K., Levy, B., Doyle, M., Schulz, R., & Kershaw, T. (2019). The impact of both spousal caregivers' and care recipients' health on relationship satisfaction in the Caregiver Health Effects Study. *Journal of Health Psychology*, *24*(12), 1744-1755. doi:10.1177/1359105317699682

Palgi, Y., Shrira, A., & Neupert, S. D. (2021). Views on Aging and Health: A Multidimensional and Multitemporal Perspective. *The Journals of Gerontology: Series B*, *76*(5), 821-824. doi:10.1093/geronb/gbab026

Pinquart, M. (2002). Creating and maintaining purpose in life in old age: A meta-analysis. *Ageing International*, *27*(2), 90-114. doi: 10.1007/s12126-002-1004-2

Rothermund, K., & Kornadt, A. E. (2015). Views on aging: Domain-specific approaches and implications for developmental regulation. *Annual Review of Gerontology and Geriatrics*, *35*(1), 121-144. doi: 10.1891/0198-8794.35.121

Sontag, S. (1997). The double standard of age. In M. Pearsall (Ed.) *The Other Within Us.* Routledge. doi:10.4324/9780429496059

Stryker, S., & Burke, P. J. (2000). The past, present, and future of an identity theory. *Social Psychology Quarterly*, 284-297. doi:10.2307/2695840

Turner, S. G., & Hooker, K. (2020). Are thoughts about the future associated with perceptions in the present?: Optimism, possible selves, and self-perceptions of aging. *The International Journal of Aging and Human Development*, online first, doi:10.1177/0091415020981883

Turner, S. G., Hooker, K., & Geldhof, G. J. (2020). Self-perceptions of aging: Factorial structure and invariance by gender. *The Gerontologist, gnaa0059*. doi:10.1093/geront/gnaa059

Umberson, D., Crosnoe, R., & Reczek, C. (2010). Social relationships and health behavior across the life course. *Annual Review of Sociology, 36*, 139-157. doi:10.1146/annurev-soc-070308-120011

Vandeweerd, C., Myers, J., Coulter, M., Yalcin, A., & Corvin, J. (2016). Positives and negatives of online dating according to women 50+. *Journal of Women & Aging*, *28*(3), 259-270. doi:10.1080/08952841.2015.1137435

Westerhof, G. J., Miche, M., Brothers, A. F., Barrett, A. E., Diehl, M., Montepare, J. M., Wahl, H.-W., & Wurm, S. (2014). The influence of subjective aging on health and longevity: A meta-analysis of longitudinal data. *Psychology and Aging, 29*(4), 793–802. doi:10.1037/a0038016

Zhang, S., & Neupert, S. D. (2021). Within-and between-person relationships among health, awareness of aging, and control beliefs: A microlongitudinal study. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 76(5), 858-870. doi:10.1093/geronb/gbaa180

Tables

Table 1

Sample Size and Demographic Characteristics of Wave 1 and Wave 2 Marital Status and Marital Status Transition

	n	Mean age (SD)	% Female	% White	Education (in years)	Self-rated health (% ≥ "good")	% with "somewhat" or "very" upsetting financial strain
Wave 1 marital status							
Married	3970	68.31 (9.41)	53%	82%	13.26 (2.96)	78%	19.36%
Divorced	1303	65.88 (8.53)	66.85%	67.59%	13.26 (2.60)	69.61%	31.38%
Widowed	1755	76.58 (9.43)	83.82%	77.77%	12.30 (2.80)	70.31%	18.77%
Wave 2 marital status							
Married	3543	67.44 (9.08)	50.07%	81.53%	13.33 (2.97)	78.68%	19.12%
Divorced	1262	65.76 (8.53)	67.43%	67.17%	13.23 (2.59)	69.1%	32.6%
Widowed	2223	76.26 (9.35)	81.69%	79.16%	12.41 (2.81)	71.12%	18.78%
Marital Status Transition from Wave 1 to Wave 2							
Remained married	3457	67.53 (9.10)	50.16%	81.65%	13.32 (2.97)	78.67%	18.97%
Married to divorced	74	61.78 (7.31)	51.35%	68.92%	13.53 (2.42)	67.57%	37.84%
Married to widowed	621	75.16 (8.95)	74.40%	85.99%	12.76 (2.86)	74.56%	16.61%
Divorced to married	104	62.47 (6.77)	42.31%	72.12%	14.02 (2.75)	78.85%	31.37%
Widowed to married	43	68.21 (9.43)	55.81%	83.72%	13.05 (2.52)	74.42%	19.04%

Table 2

Descriptive Statistics and Correlations for Continuous and Dichotomous Variables

Variable	n	M	SD	1	2	3	4	5	6	7	8	9
1. Age	7028	69.93	10.06	--								
2. Gender	7028	--	--	0.04**	--							
3. Education	6997	13.02	2.89	**-0.11**	**-0.06**	--						
4. Self-rated health	7027	3.17	1.02	**-0.08**	-0.01	**0.27**	--					
5. Financial strain	6798	1.69	0.93	**-0.20**	0.03**	**-0.07**	**-0.24**	--				
6. Positive SPA (Wave 1)	7026	4.08	1.19	-0.01	-0.03*	**0.08**	**0.35**	**-0.25**	--			
7. Negative SPA (Wave 1)	7024	3.22	1.21	**0.21**	-0.001	**-0.23**	**-0.38**	**0.19**	**-0.46**	--		
8. Positive SPA (Wave 2)	7027	4.00	1.21	**-0.09**	-0.01	**0.06**	**0.39**	**-0.28**	**0.50**	**-0.40**	--	
9. Negative SPA (Wave 2)	7023	3.30	1.22	**0.26**	-0.01	**-0.21**	**-0.43**	**0.21**	**-0.38**	**0.57**	**-0.47**	--

Note. *$p \leq .05$, **$p \leq .01$, ***$p \leq .001$, Correlations are bolded if $p \leq .0001$.

Table 3.

Omnibus Model Parameter Estimates

Variable	Research Question 1 (Wave 2 Marital Status on Wave 2 SPA)					Research Question 2 (Marital Status Change from Wave 1 to Wave 2 on Wave 2 SPA)				
	Sum of Squares	*df*	Mean Square	F	*p*	Sum of Squares	*df*	Mean Square	F	*p*
Positive SPA										
Age	68.42	1	68.42	70.43	<.0001	58.20	1	58.20	61.47	<.0001
Gender	0.001	1	0.001	0.00	0.97	1.45	1	1.45	1.53	0.22
Race	6.92	2	3.46	3.56	0.03	4.19	2	2.10	2.21	0.11
Education	31.73	1	31.73	32.67	<.0001	30.12	1	30.12	31.81	<.0001
Self-rated health	1557.86	1	1557.86	1603.75	<.0001	852.25	1	852.25	900.06	<.0001
Financial strain	445.59	1	445.59	458.72	<.0001	267.51	1	267.51	282.52	<.0001
Positive SPA at Wave 1	1262.02	1	1262.02	1299.20	<.0001	731.37	1	731.37	772.40	<.0001
Marital status (RQ1)/status transition type (RQ2)	3.24	2	1.62	1.67	0.19	4.60	2	2.30	2.43	0.09
Negative SPA										
Age	673.74	1	673.74	775.10	<.0001	407.54	1	407.54	505.98	<.0001
Gender	0.17	1	0.17	0.20	<.0001	6.71	1	6.71	8.33	0.004
Race	43.35	2	21.68	24.94	<.0001	30.88	2	15.44	19.17	<.0001
Education	329.55	1	329.55	379.12	<.0001	240.66	1	240.66	298.79	<.0001
Self-rated health	1465.87	1	1465.87	1686.40	<.0001	921.45	1	921.45	1144.03	<.0001
Financial strain	304.98	1	304.98	350.87	<.0001	158.54	1	158.54	196.83	<.0001
Negative SPA at Wave 1	1349.79	1	1349.79	1552.86	<.0001	828.34	1	828.34	1028.43	<.0001
Marital status (RQ1)/status transition type (RQ2)	1.09	2	0.63	0.63	0.54	5.11	2	2.56	3.17	0.04

Note. Sum of Squares is Type I.

Figures

Figure 1

Wave 2 SPA scores by Marital Status Transition from Wave 1 to Wave 2