

Original Research Article

Sexual Orientation and Gender Differences in Aging Perceptions and Concerns Among Older Adults

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Abstract

Background and Objectives: Ageism (negative attitudes and behavior toward older adults) is a serious social issue and is of growing concern as the population of older adults continues to increase. Research demonstrates that negative aging perceptions and aging concerns are associated with poor health and well-being among older adults; yet, few studies have examined sexual orientation or gender differences in aging perceptions and concerns among older adults.

Research Design and Methods: The current online study examined aging perceptions and concerns among a national community sample of 821 (female = 464) participants (76 lesbian, 159 gay, 88 bisexual, 498 heterosexual participants) ranging from 45 to 80 years of age ($M = 55.56$).

Results and Discussion: Older women reported more aging anxiety and endorsement of aging stereotypes while older sexual minority individuals reported heightened general aging concerns compared to their heterosexual peers. Among sexual minority participants, discrimination based on age and sexual orientation predicted greater sexual minority-specific aging concerns, anxiety, and depression. Experiencing sexual orientation discrimination buffered age discrimination's impact on sexual minority-specific aging concerns, suggesting that experiencing discrimination based on one stigmatized identity (sexual minority) may promote effective coping with discrimination based on another stigmatized identity (older adult). Conversely, age and sexual orientation discrimination had multiplicative effects on anxiety and depression.

Implications: Overall, findings point to the importance of examining sexual orientation and gender differences in aging perceptions and concerns to more fully understand the experiences, health, and well-being of the growing older population. Implications for future directions are discussed.

Translational Significance: In a sample of heterosexual, lesbian, gay, and bisexual older adults, aging perceptions and concerns varied depending on gender, sexual orientation, and perceived discrimination. Although experiencing sexual orientation discrimination buffered age discrimination's impact on aging concerns, experiencing age and sexual orientation discrimination had a multiplicative effect on anxiety and depression. Health professionals and community groups that work with older adults should address how gender, sexual orientation, and discrimination can influence one's psychological health.

Keywords: Ageism, Gay, Lesbian, Bisexual and transgender, Gender issues, Psychology of aging/psychiatry, Depression and anxiety

By the year 2030, 72 million Americans will be over the age of 65 and account for 20% of the U.S. population (CDC, 2013). Unfortunately, ageism (stereotyping of and discrimination toward older adults) is a pervasive and serious social problem (Butler, 1969; Levy, 2016). Older adults are stereotyped as having a mix of both positive (e.g., wise) and negative (e.g., grumpy) attributes; however, recent research suggests such stereotypes are increasingly negative (Ng, Allore, Trentalange, Monin, & Levy, 2015). These stereotypes contribute to discrimination against and abuse toward older adults in the home, workplace, and medical settings (Abrams, Swift, & Drury 2016; Chrisler, Barney, & Palatino, 2016; Levy & Macdonald, 2016; Pillemer, Burnes, Riffin, & Lachs, 2016). Internalization of ageism has been linked with poorer physical health and earlier mortality (Levy, Slade, Kunkel, & Kasl, 2002) and greater risk for cardiovascular events (Levy, Zonderman, Slade, & Ferrucci, 2009). Further, age discrimination reduces older adult's access to resources they need to age actively (e.g., appropriate health care, proper housing; Swift, Abrams, Lamont, & Drury, 2017).

The population of older adults is rapidly increasing in the United States and around the world. Although largely invisible, the number of sexual minorities in the United States over the age of 50 is also rising rapidly and projected to exceed 6 million by 2030 (Fredriksen-Goldsen & Muraco, 2010; Jackson, Johnson, & Roberts, 2008). As women live longer than men, on average, a growing aging demographic also means a larger proportion of women (U.S. Census Bureau, 2011). Despite this substantial increase in older lesbian, gay, and bisexual (LGB) adults and the disproportionate number of older women, little research is directed toward understanding the unique aging experiences of older sexual minorities (Fredriksen-Goldsen & Muraco, 2010) nor older women (Chrisler et al., 2016; Lytle, Macdonald, Dyar, & Levy, 2018). In light of research highlighting the need and value of studying intersectionality (Fredriksen-Goldsen & Muraco, 2010; Lytle et al., 2018) and lack of research examining sexual orientation or gender differences among older adults, the present investigation attempts to address these gaps in the literature.

Age and Sexual Orientation

There is a dearth of research on the experiences of older LGB adults (Fredriksen-Goldsen, Kim, Barkan, Muraco, Hoy-Ellis, 2013). Research on sexual minority older adults at the federal or state level is scarce, resulting in a limited understanding of the unique aging issues and concerns of the LGB community (Grant, Koskovich, Frazer, & Bjerk, 2010). The Institute of Medicine (IOM, 2011) has identified older LGB adults as both an at-risk and under-served population of individuals, and the CDC (2011) recognized health disparities related to sexual orientation as one of the most pronounced gaps in health research, demonstrating the need for further research.

A small body of research is beginning to examine the intersection of age and sexual orientation. Despite growing acceptance of sexual minority individuals (PEW, 2013), heterosexism, the cultural ideology that perpetuates society's negative regard for any non-heterosexual behavior, identity, relationship, or community, continues to pervade societal customs and institutions (Szymanski & Mikorski, 2016). Thus, older LGB adults may face unique aging challenges (Seelman, Lewinson, Engleman, Maley, & Allen, 2017) in part because of their dual stigmatized identities (i.e., older adult and sexual minority). Older sexual minority adults, compared to their heterosexual peers, have a higher risk of disability, worsened mental health, and poorer health behaviors (Fredriksen-Goldsen, Kim, et al., 2013). Similarly, lifetime victimization and discrimination have been associated with worsened physical and mental health among older LGB adults (Fredriksen-Goldsen et al., 2015; IOM, 2011). These findings provide initial support for the greater risk perspective, which posits that individuals with multiple stigmatized identities are at greater risk for poor health outcomes as a result of the multiple types of marginalization they experience (Greene, 2000).

Given their multiple stigmatized identities, older sexual minorities are likely to experience unique concerns about how they will be treated and the types of support (e.g., government support) they will receive in old age. Accordingly, older LGB adults report being concerned about experiencing bias within the health care system (Jackson et al., 2008). Older LGB adults perceive more barriers to health care and legal services (Jenkins Morales, King, Hiler, Coopwood, & Wayland, 2014). For example, 73% of sexual minority adults believe that LGB residents of care facilities are victims of discrimination (Jackson et al., 2008). Caregivers also report that expectations or experiences of discrimination have an effect on how older LGB adults use health services (Brotman, Ryan, & Cormier, 2003). Older sexual minority adults have also reported that their health care providers are not responsive to their needs and a quarter choose not to reveal their sexual identity to health care professionals due to fear of a negative response (Sharek, McCann, Sheerin, Glacken, & Higgins, 2015). Thus, age and sexual identity intersect to heighten unique concerns about aging in situations and institutions where older LGB adults fear their dual stigmatization will negatively impact their treatment, such as health care (Metlife, 2010).

Despite this, another body of research suggests LGB adults fare better with certain aspects of aging because of their experiences as a sexual minority individual (Fredriksen-Goldsen & Muraco, 2010). Crisis competence posits that individuals who have one stigmatized identity (e.g., sexual orientation) develop skills to cope with that stigmatization which can be utilized to cope with additional stigmatized identities (e.g., older age). Indeed, a systematic review of the literature found that aging LGB adults may adjust more positively to aging than heterosexual adults (Fredriksen-Goldsen & Muraco, 2010). In

one study, nearly 40% of the LGBT older adults reported that being a sexual minority endowed them with greater resilience and support networks for coping with aging compared to their heterosexual peers (Karpiak, Shippy, & Cantor, 2006). Similarly, 74% of the older respondents said that their sexual orientation helped them prepare for aging. Nevertheless, 54% also believed that their sexual orientation makes aging more difficult, highlighting that this dual stigmatization still negatively affects older sexual minority individuals (Metlife, 2010).

Thus, it is important to consider both risk and protective factors among older LGB adults. Indeed, a resilience framework allows researchers to examine both protective and risk factors that may contribute to health outcomes among older LGB individuals by incorporating the larger social context and psychosocial factors such as personal and social resources (Fredriksen-Goldsen et al., 2015). In the current investigation, we examine how possible risk factors such as experiences with both age and sexual orientation discrimination may impact psychosocial outcomes (e.g., aging concerns, aging stereotypes) and test whether aging and sexual orientation based discrimination interact to predict anxiety and depression. The existing literature has predominately focused on health disparities and social support among older LGB adults (Fredriksen-Goldsen, Kim, et al., 2013) with few studies exploring psychosocial variables or examining the effect of experiencing sexual orientation and age-based discrimination. Thus, the current research fills a unique gap in the literature by examining whether important psychosocial variables vary based on sexual orientation or gender, which will be reviewed next.

Age and Gender

A small but growing body of research finds differences in perceptions of older women and men (Barrett & Von Rohr, 2008; Chonody, 2016; Chrisler et al., 2016). Stereotypes about older adults can be positive or negative, however, older men are more likely to benefit from positive aging stereotypes, such as being stereotyped as a wise elder (Barrett & Von Rohr, 2008).

Gender differences in how older adults are perceived impact how they are treated in health care and professional settings. Specifically, older women are less likely to receive preventive medicine, such as cholesterol screenings and flu shots, and often receive substandard preventative care and treatment for heart disease (e.g., less likely to receive heart bypass surgery, to be prescribed beta-blockers, daily aspirin, etc.) compared to older men (Chrisler et al., 2016). Similarly, qualified older women are perceived differently when seeking leadership positions as they face both sexism and ageism as impediments to securing positions of power (Lytle et al., 2018).

The intersection of age and gender can also be seen in how older women perceive their own aging and are perceived by society as evidenced by research stemming from

psychology and feminist scholarship. Research suggests that women have different concerns about aging (Brunton & Scott, 2015) and have more concerns about aging in general than men (Clarke & Korotchenko, 2011; Gibson, 1996; Slevic & Tiggemann, 2010). Women are also perceived as being older at earlier ages compared to men (Kite & Wagner, 2002), which may influence the internalization of age stereotypes among women (Barrett & Von Rohr, 2008), as well as the subsequent desire to engage in anti-aging behaviors (e.g., hair dyes, cosmetic surgery; Calasanti, Slevic, & King, 2006; Clarke & Griffin, 2008; Slevic & Tiggemann, 2010). As such, women also report greater negative expectations of aging and aging anxiety than men (Cummings, Kroph, & DeWeaver, 2000), suggesting that the stigmatization of gender and aging interact to impact the experience of aging for women.

Current Study

There is limited research examining potential differences in aging perceptions and concerns by sexual orientation or gender, and the small body of research on aging in these populations has predominately focused on health disparities affecting sexual minorities (Fredriksen-Goldsen, Kim, et al., 2013; Meyer, 2003) and the differential treatment and perceptions of older women (Chrisler et al., 2016; Clarke & Korotchenko, 2011). To advance the literature, the current study aims to examine (1) differences in psychosocial aging variables (e.g., aging concerns, aging stereotypes) based on sexual orientation and gender; (2) associations between sexual orientation and aging discrimination and psychosocial aging variables among LGB older adults; and (3) whether experiences of age and sexual orientation discrimination interact to predict psychosocial aging variables.

We hypothesized that women would report more aging anxiety, endorse more negative aging stereotypes, and fewer positive aging stereotypes than men, regardless of sexual orientation. To examine the theories of resilience, crisis competence and greater risk, we explored how a sexual minority identity influences psychosocial outcomes. Based on greater risk perspective, we would hypothesize that LGB participants would report more aging anxiety as well as more general aging concerns than heterosexual participants. However, crisis competence suggests that LGB individuals and heterosexual individuals would have similar levels of aging anxiety and general aging concerns given experiences navigating another stigmatized identity, sexual orientation.

Among older LGB adults, we hypothesized that experiencing more sexual orientation discrimination and age discrimination would be associated with more sexual minority-specific aging concerns, general aging concerns, aging anxiety, and symptoms of anxiety and depression. These analyses of age and sexual orientation discrimination are novel, as past research has examined age discrimination (Fredriksen-Goldsen, Emler, et al., 2013), but

we are unaware of any studies examining the potential impact of both age and sexual orientation discrimination simultaneously. Thus, we conducted exploratory analyses of the interaction of age and sexual orientation discrimination with no specific hypotheses about the direction of this interaction as greater risk perspective and resilience theories predict different results. Based on past research (Giasson, Queen, Larkina, & Smith, 2017), we did expect greater reported aging discrimination to be associated with more negative and less positive stereotypes about aging.

Design and Methods

Participants

Participants were 821 individuals (women = 464, men = 357) ranging from 45 to 80 years of age ($M = 55.56$, $SD = 7.60$) with diverse sexual identities (gay = 159, lesbian = 76, bisexual = 88, heterosexual = 498). Participants included 74.0% European American, 7.0% African American, 6.5% Latino/Latina, 2.7% Asian, 1.5% Native American, 0.3% Middle Eastern, and 8.0% Other or Mixed race/ethnicity. Data were excluded for participants younger than 45 ($n = 30$), for participants who did not speak English as their first language ($n = 14$), and who resided outside the United States ($n = 42$) because ageism may be culturally bound (Levy & Macdonald, 2016).

Procedure and Recruitment

Participants were directed to a secure website, Qualtrics, to complete a 20-min survey about “people’s aging beliefs.” If they consented, participants were given access to the survey. Participation was voluntary, and participants were able to leave the study at any time. The university’s institutional review board approved this study prior to data collection. The survey’s last page included a debriefing.

Participants were recruited via Amazon’s Mechanical Turk (MTURK), Craigslist, Facebook, and Reddit. MTURK, an online pool of adult community participants who complete surveys for payment, provides high quality participant responses (Kees, Berry, Burton, & Sheehan, 2017). Past ageism studies have used MTURK for an age diverse community sample (Lytle & Levy, 2017; Macdonald & Levy, 2016). Craigslist, Facebook, and Reddit are also routinely used in community samples (Dyar, Lytle, London, & Levy, 2017). The study authors and research assistants posted the survey on Craigslist, Facebook, and Reddit where participants entered a chance to win one of four \$50 gift cards. Participants were asked to invite others to complete our survey, a technique referred to as snowballing.

Data collection took place from June 2015 to December 2017. On June 26, 2015, the U.S. Supreme Court legalized same-sex marriage. Accordingly, we controlled for the date of completion. Results were similar when date of completion was controlled for and not.

Measures

Measures are listed in the order in which participants completed them. For all measures except for sexual orientation, higher scores indicate greater agreement with the construct (e.g., greater general aging concerns).

Sexual orientation

Participants answered a single item, “What is your sexual orientation?” with the following options: “Heterosexual or Straight”; “Gay”; “Lesbian”; “Bisexual”; “Questioning”, “Queer”, “Other (Please Specify).” Participants who identified as questioning ($n = 5$), queer ($n = 6$), and with other identities ($n = 6$) were excluded from analysis because the group sizes were too small to examine.

General aging concerns

Participants rated eight items (the first four of which were adapted from Hostetler, 2012) on a 1 (*Not At All Concerned*) to 6 (*Extremely Concerned*) scale ($\alpha = .86$). Items included: (1) In general, how concerned are you about growing older?; (2) How concerned are you about becoming socially isolated and lonely?; (3) How concerned are you that there will be no one to care for you in your old age?; (4) How concerned are you about the possibility of needing services from a long-term care facility?; (5) How concerned are you that you will have enough money to support yourself after retirement?; (6) How concerned are you that a person close to you (e.g., partner/spouse, family, friends, etc.) will be given visitation rights if you are sick in the hospital?; (7) How concerned are you that a person close to you (e.g., partner/spouse, family, friends, etc.) will be given inheritance rights after you pass?; (8) How concerned are you that you will be treated with respect by health care professionals?

Sexual minority-specific aging concerns

Based on a literature review of specific aging concerns for LGB individuals, we created a four-item measure ($\alpha = .79$) with statements rated on a 1 (*Strongly Disagree*) to 6 (*Strongly Agree*) scale. Items were: (1) Because of my sexual orientation, I worry that my family will not care for me when I am older; (2) Because of my sexual orientation, I worry that I will not receive government aid when I am older; (3) I am concerned that getting the support I need as I age will influence my openness about my sexual orientation; and (4) I am concerned that doctors, nurses or other care providers make assumptions about my health (e.g., HIV status) based on my sexual orientation.

Age and sexual orientation discrimination

Participants rated two separate measures with 13 items each (Szymanski, 2006) on a scale of *Never* to *Almost All of the Time* scale ($\alpha = .92$; $\alpha = .91$). Participants were asked “How often have you been treated unfairly by the following groups or individual because of your age

(sexual orientation)” with five groups identified: (1) your employers, bosses, and supervisors, (2) your coworkers or colleagues, (3) people in service jobs (e.g., waiters), (4) strangers, (5) people in helping jobs (e.g., nurses). Next participants were asked to indicate “How frequently have you been” (1) denied a raise, promotion, tenure, a good assignment, a job, or other such thing at work (2) treated unfairly by your family, (3) called a disrespectful name, (4) made fun of, picked on, pushed, hit, or threatened with harm, (5) rejected by family members, (6) rejected by friends, (7) heard antilebian/gay remarks (ageist remarks), (8) verbally insulted because of your age (sexual orientation).

Aging anxiety

Participants rated four items (Bousfield & Hutchison, 2010) on a 1 (*Strongly Disagree*) to 6 (*Strongly Agree*) scale ($\alpha = .70$). Items included: (1) I am relaxed about getting old, (2) I am worried that I will lose my independence when I am old, (3) I am concerned that my abilities will suffer when I am old, (4) I do not want to get old because it means that I am closer to dying.

Positive and negative age stereotypes

Participants rated nine positive (active, well-groomed, wise, full of life, capable, positive, healthy, family-orientated, will to live; $\alpha = .92$) and nine negative stereotypes (walks slowly, wrinkled, senile, dying, helpless, grumpy, sick, lonely, and given up; $\alpha = .93$) on a scale of 0 (*not at all characteristic*) to 6 (*very characteristic*) of how characteristic the stereotype is of a 65-year-old adult (Levy, Kasl, & Gill, 2004).

Current health

Participants rated two items (Ramírez, Palacios-Espinosa, Dyar, Lytle, & Levy, 2018) on a 1 (*Poor*) to 5 (*Excellent*) scale ($\alpha = .70$, “In general, how do you expect your physical [mental] health to be when you are old?”).

Depression

Participants rated seven items (Radloff, 1977) measuring depressive symptoms on a 0 (*Rarely or None of the Time*) to 3 (*Most or All of the Time*) scale ($\alpha = .89$). Items were: (1) I did not feel like eating; my appetite was poor, (2) I had trouble keeping my mind on what I was doing, (3) I felt depressed, (4) I felt that everything I did was an effort, (5) My sleep was restless, (6) I felt sad, and (7) I could not get going.

Anxiety

Participants rated seven items (Spitzer, Kroenke, Williams, & Löwe, 2006) measuring general anxiety symptoms on a 0 (*Not at all*) to 3 (*Nearly every day*) scale ($\alpha = .93$). Items were: (1) I felt nervous, anxious, or on edge, (2) Not being able to stop or control worrying, (3) Worrying too much about different things, (4) Trouble relaxing, (5) Being so restless that it’s hard to sit still, (6) Becoming easily annoyed or irritable, and (7) Feeling afraid as if something awful might happen.

Results

Gender and Sexual Orientation Differences

Among the full sample, we conducted four multiple linear regression analyses, in which gender (male = 0, female = 1) and sexual orientation (lesbian/gay [LG], bisexual, heterosexual [reference group]) predicted each of dependent variables (negative and positive aging stereotypes, aging anxiety, and general aging concerns) with age and current health entered as covariates.

Gender emerged as a significant predictor for negative and positive aging stereotypes, and aging anxiety, but not general aging concerns. As expected, women reported greater endorsement of negative stereotypes, less endorsement of positive stereotypes, and significantly more anxiety about aging than men. Sexual orientation was not a significant predictor for negative or positive aging stereotypes or aging anxiety. However, LG individuals reported significantly more general aging concerns than heterosexual individuals. Results from these analyses are shown in Tables 1 and 2.

Aging and Sexual Orientation Based Discrimination

The next set of analyses was conducted only with LGB participants. We conducted seven multiple linear regression analyses, in which age discrimination, sexual orientation discrimination, and their interaction predicted each of our dependent variables (negative and positive aging stereotypes, aging anxiety, general aging concerns, sexual minority-specific aging concerns, anxiety, and depression).

Age by sexual orientation discrimination interactions did not significantly predict negative aging stereotypes, aging anxiety, or general aging concerns. Experiencing more age discrimination significantly predicted greater endorsement of negative age stereotypes and more general aging concerns. Experiencing more sexual orientation discrimination predicted more general aging concerns. Neither age nor sexual orientation discrimination significantly predicted aging anxiety. Results from these analyses are shown in Tables 3 and 4 (see Supplementary Material).

Next, the interaction between age and sexual orientation discrimination was examined, revealing a few key novel findings. The interaction between age and sexual orientation discrimination significantly predicted sexual minority-specific aging concerns. Simple slopes for the association between age discrimination and sexual minority-specific aging concerns were tested for low (-1 SD) and high ($+1$ SD) levels of sexual orientation discrimination. Experiencing more aging discrimination was associated greater sexual minority-specific aging concerns at high and low levels of sexual orientation discrimination, with the association stronger at lower levels of sexual orientation discrimination ($b = .57$, $SE = .14$, $t = 4.10$, $p < .001$) than higher levels ($b = .25$, $SE = .09$, $t = 2.65$, $p = .009$). Simple slopes are presented in Figure 1.

Table 1. Bivariate Correlations and Descriptive Statistics

Variable	1	2	3	4	5	6	7	8	9
1. Gender	--								
2. Sexual Orientation (Gay or Lesbian)	.28**	--							
3. Sexual Orientation (Bisexual)	.10**	-.22**	--						
4. Age	.03	-.03	-.04	--					
5. Current Health	.04	.05	-.07	.09**	--				
6. Negative Age Stereotypes	.12**	-.01	.07	-.19**	-.30**	--			
7. Positive Age Stereotypes	-.14**	-.003	-.07*	.13**	.41**	-.45**	--		
8. Aging Anxiety	-.08*	-.01	.04	-.01	-.32**	.29**	-.23**	--	
9. General Aging Concerns	-.04	.05	.05	-.14**	-.34**	.36**	-.22**	.53**	--
Mean	0.43	0.29	0.11	55.44	3.32	3.04	4.94	3.79	3.44
SD	0.50	0.45	0.31	7.59	0.97	1.33	1.04	1.06	1.15

Note: * $p < .05$, ** $p < .01$; Gender is coded as male = 0, female = 1; heterosexual is the reference group for sexual orientation.

Table 2. Linear Regression Analysis

Predictor	Negative Age Stereotypes	Positive Age Stereotypes	Aging Anxiety	General Aging Concerns
	β	β	β	β
Age	-.18***	.10***	.02	-.10**
Current Health	-.28***	.41***	-.33***	-.33***
Gender	.14***	-.18***	.09**	-.06
Sexual Orientation (Gay or Lesbian)	-.03	.02	.04	.09**
Sexual Orientation (Bisexual)	.02	-.02	.03	.05

Note: ** $p < .01$, *** $p < .001$; Gender is coded as male = 0, female = 1; heterosexual is the reference group for sexual orientation.

The interaction between age and sexual orientation discrimination also significantly predicted anxiety and depression. Simple slopes for the association between age discrimination and anxiety were all positive and significant, but age discrimination was more strongly related to anxiety at high levels of sexual orientation discrimination ($b = .20$, $SE = .06$, $t = 3.47$, $p = .001$) than at low levels ($b = .06$, $SE = .08$, $t = 0.66$, $p = .51$), suggesting a synergistic interaction. Similarly, simple slopes analysis revealed a significant positive association between experiencing age discrimination and depression at all levels of sexual orientation discrimination, but age discrimination was more strongly related to depression at high levels of sexual orientation discrimination ($b = .19$, $SE = .05$, $t = 4.18$, $p < .001$) than at low levels ($b = .06$, $SE = .07$, $t = 0.90$, $p = .37$).

Discussion

Ageism is associated with poor health and well-being for older adults (Levy et al., 2002, 2009); yet, there has been little research with older adults examining whether aging perceptions and concerns differ based on sexual orientation or gender. Older LGB individuals' experiences are historically lacking from gerontology research, resulting in a

growing call for research on aging LGB individuals (IOM, 2011). The present investigation begins to address this gap by examining differences in the perceptions and concerns of older adults based on sexual orientation and gender to provide a more nuanced understanding of psychosocial aspects of aging among different identities as well as the unique concerns of individuals with marginalized identities. Importantly, we demonstrate that women have higher levels of internalized ageism (more endorsement of negative aging stereotypes and less endorsement of positive aging stereotypes) and more aging anxiety than men, consistent with a small body of existing research (Brunton & Scott, 2015; Clarke & Korotchenko, 2011; Cummings et al., 2000; Gibson, 1996). These findings suggest that stereotypes of aging and stereotypes about women compound, demonstrating that ageism appears to have a stronger impact on women than men (Chrisler et al., 2016).

Interestingly, we did not find differences in psychosocial aging variables (positive and negative aging stereotypes, aging anxiety) based on sexual orientation. This is consistent with the tenets of crisis competence, which suggests that older LGB individuals may be more adept at managing elements of aging given experiences navigating another stigmatized identity. However, the intersection of age and sexual orientation resulted in the expression of unique aging concerns among LGB individuals. Further, experiences of discrimination based on one's sexual minority status and age were associated with more sexual minority-specific aging concerns (e.g., concern about not receiving government aid when older because of one's sexual orientation). Experiencing sexual orientation discrimination buffered age discrimination's impact on sexual minority-specific aging concerns. This aligns with the resilience framework, which suggests that individuals who have experienced discrimination based on one stigmatized identity may develop more effective skills for coping with discrimination, which may help reduce the effect of discrimination based on additional stigmatized identities. On the other hand, there was a multiplicative effect of age and sexual orientation discrimination, such that individuals who experienced high rates of age and

Table 3. Linear Regression Analyses in Sexual Minority Subsample

Predictors	Negative Age Stereotypes	Positive Age Stereotypes	Aging Anxiety	General Aging Concerns	Sexual Minority-Specific Aging Concerns	Anxiety	Depression
	<i>b</i>	<i>b</i>	<i>b</i>	<i>b</i>	<i>b</i>	<i>b</i>	<i>b</i>
Gender	.52***	-.36***	.22*	-.08	.40***	.03	.05
Sexual Orientation	.22	-.06	-.03	.05	.12	.20**	.07
Age	-.05***	.03***	-.01	-.02**	-.02*	-.01*	-.01
Current Health	-.25***	.40***	-.36***	-.31***	-.16**	-.40***	-.45***
Age Discrimination	.44***	-.12	.15	.28**	.41***	.13	.13*
Sexual Orientation Discrimination	.11	.06	-.04	.25**	.62***	.10	.12**
Interaction of Age and Sexual Orientation Discrimination	-.04	.10*	.01	-.10	-.19***	.08**	.08**

Note: **p* < .05, ***p* < .01, ****p* < .001; gender is coded as male = 0, female = 1; sexual orientation is coded as lesbian/gay = 0, bisexual = 1.

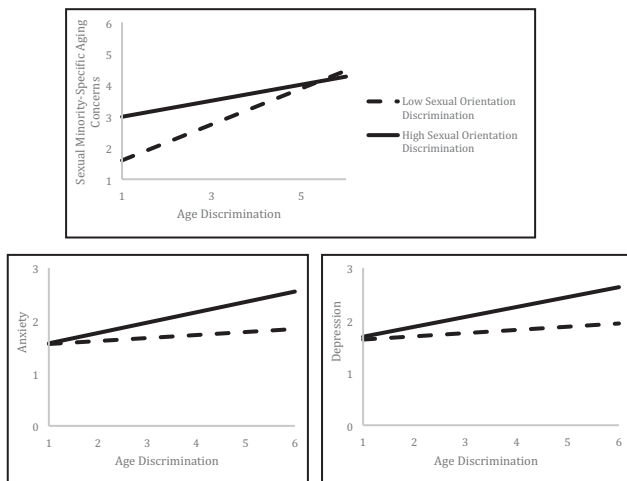


Figure 1. Simple slopes for interactions between age discrimination and sexual orientation discrimination predicting sexual minority-specific aging concerns, anxiety, and depression. See text for simple slope coefficients.

sexual orientation based discrimination had the highest levels of anxiety and depression, corresponding with what would be expected based on the greater risk perspective. These findings add to a small but growing body of research suggesting that older LGB adults may be at heightened risk for a range of negative mental and physical health outcomes (Fredriksen-Goldsen, Kim et al., 2013).

Taken together, our findings demonstrate the importance of investigating aging perceptions and concerns based on sexual orientation and gender. This study demonstrated that experiencing discrimination based on two identities (older age and sexual minority identity) was associated with poorer outcomes (e.g., anxiety and depression), however, the effect of aging discrimination on LGB-specific aging concerns was weaker among individuals who had experienced more sexual orientation based discrimination. These results provide support for greater risk perspective, crisis competence, and the resilience framework and point to the necessity of future

research to continue to tease apart the effects of having multiple stigmatized identities. Our findings suggest that sexual minorities and heterosexuals may not differ on general psychosocial aging variables (e.g., aging stereotypes, aging anxiety) but that sexual minorities do have unique concerns about aging. The current research was the first to examine the possible influences of sexual orientation and age discrimination on older LGB adults’ psychosocial perceptions of aging, anxiety, and depression. As such, the experience of older LGB adults appears to be meaningfully different from that of older heterosexual adults.

This study should be considered in light of its limitations. The current study was not inclusive of questioning, queer, and transgender individuals. As these groups may have perceptions of and concerns about aging that are unique from both older heterosexual and LGB adults, future research should examine more representative samples of older heterosexual and sexual minority adults. Second, this study was cross-sectional, and therefore, we could not test the directionality of effects.

Results from the current study suggest several fruitful avenues for future research. Future research should test the generalizability of these findings in other cultures. For example, in countries with more discriminatory laws directed toward sexual minorities, we would expect heightened concerns about aging among sexual minorities. Similarly, women in cultures with higher levels of gendered ageism may more strongly endorse aging stereotypes and report more aging anxiety. In addition, it would be worthwhile for future research to examine differences in the endorsement of stereotypes about older men and older women. In the current study, participants provided perceptions of a 65-year-old adult without explicit mention of gender. Given that gender and age can influence perceptions, a more nuanced approach to investigating age stereotypes may be informative. Further investigations of the intersections of gender, age, and other inequalities are essential to developing strategies that can help prevent the reinforcement of gender inequalities (Calasanti, 2010).

Lastly, experiences with sexism could be incorporated in future studies to examine the interaction between ageism, heterosexism, and sexism among sexual minority women.

The policy implications of this research are multifaceted. As research continues to explore and uncover unique aging concerns of LGB individuals, these findings could be used to inform health professionals who collaborate with and care for older individuals. Our findings along with other findings indicate that a one-size fits all approach to caring for older individuals is unlikely to be the optimal approach. Community-based participatory research (CBPR) is an avenue for accomplishing a more optimal approach as CBPR involves encouraging and facilitating collaborations between researchers and communities. It has been identified as a useful way to engage academics and the communities impacted by prejudice (Rosenthal, 2016). For example, facilitating a collaboration among academics, LGB advocacy groups, and local long-care facilities or nursing homes could create a dialogue among experts who together can provide greater support and understanding for the unique issues older sexual minority adults experience. We look forward to future research that expands our understanding of how aging perceptions, stereotype endorsement, and concerns are uniquely related to or influenced by sexual orientation and gender.

Supplementary Material

Supplementary data are available at *Innovation in Aging* online.

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Conflict of Interest

None reported.

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