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To cite this article: Anthony Lyons, Beatrice Alba, Andrea Waling, Victor Minichiello, Mark Hughes, Catherine Barrett, Karen Fredriksen-Goldsen, Teresa Savage & Samantha Edmonds (2022) Assessing the combined effect of ageism and sexuality-related stigma on the mental health and well-being of older lesbian and gay adults, *Aging & Mental Health*, 26:7, 1460-1469, DOI: [10.1080/13607863.2021.1978927](https://doi.org/10.1080/13607863.2021.1978927)

To link to this article: <https://doi.org/10.1080/13607863.2021.1978927>



Published online: 16 Sep 2021.



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Assessing the combined effect of ageism and sexuality-related stigma on the mental health and well-being of older lesbian and gay adults

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ABSTRACT

Objective: Relatively little research has examined ageism among older lesbian and gay adults. In this study, we investigated how ageism, as well as sexuality-related stigma, relate to mental health and well-being in these groups.

Method: Six hundred and thirteen lesbian women and gay men aged 60+ in Australia completed a nationwide survey. We investigated how experiences of ageism, concerns about having one's sexual orientation accepted by others (as one broad indicator of sexuality-related stigma), and their interactions, predict psychological distress, positive mental health, and resilience.

Results: Among the lesbian women, experiences of ageism predicted greater psychological distress and lower positive mental health, while sexuality acceptance concerns predicted poorer outcomes on all three well-being measures. Among the gay men, experiences of ageism and sexuality acceptance concerns predicted poorer outcomes on all the well-being measures. In addition, the gay men who were higher on sexuality acceptance concerns had higher psychological distress and lower resilience, but only when they also had greater experiences of ageism.

Conclusion: Findings suggest that those concerned with the well-being of lesbian and gay people should account for not only the potential impact of sexuality acceptance concerns but also ageism, and how these two factors may interact.

ARTICLE HISTORY

Received 19 May 2021
Accepted 2 September 2021

KEYWORDS

Stigma; ageism; gay; lesbian; older people

Introduction

Experiences of stigma and discrimination are associated with poorer mental health among people who identify as lesbian or gay. According to Minority Stress Theory (Meyer, 2003), sexuality-related stigma contributes to chronic stress, with associated implications for health and well-being. However, sexuality-related stigma may not be the only form of stigma that lesbian and gay adults experience. A further potential challenge is ageism. Experiences of prejudice or discrimination toward people due to their age, known as ageism (Nelson, 2005), have been associated with poorer well-being in general populations (e.g. Han & Richardson, 2015; Lyons et al., 2018). In most studies, lesbian women and gay men aged either 60 or 65 years and above are considered as 'older'. Relatively little attention has been given to experiences of ageism in these groups. Qualitative research has highlighted ageism as an issue (e.g. Boggs et al., 2017; Hughes, 2007), but quantitative research is scarcer, particularly in relation to ageism and mental health. Of quantitative work conducted, research in the United States found that experiences of ageism are associated with depressive symptoms in older lesbian, gay, and bisexual adults (Lytle et al., 2018). Feeling denigrated due to ageing also appears to be linked to depressive symptoms among gay men (Wight et al., 2015).

An important question is whether older lesbian and gay adults who experience both ageism and sexuality-related stigma have poorer well-being than those who experience only one of these or neither. A study by Lytle et al. (2018) found a significant interaction between age discrimination and sexual orientation discrimination, whereby those who faced greater sexual orientation discrimination experienced greater symptoms of depression and anxiety when their experiences of age discrimination were also high. This multiplicative (or additive) effect was explained according to a greater risk perspective (Greene, 2000), which suggests that experiences of discrimination among those with multiple stigmatised identities can have a greater impact compared to those with fewer or no other stigmatised identities.

However, the analysis from Lytle et al. (2018) combined lesbian women and gay men, as well as bisexual men and women. Going forward, it is important to examine women and men separately, and sexual orientation separately, as the predictors identified for one group may not necessarily be the same as those for another group. For example, older people could potentially face different gender expectations, such as different pressures on physical appearance. Ageism may also be experienced differently across contexts, such as work. For instance, a study of the general population in Australia found that experiences of ageism are highly

gendered, with women more likely than men to perceive age discrimination as a barrier to employment (McGann et al., 2016). Among gay men, it has often been noted that experiences of ageism occur within gay communities, where some older gay men feel increasingly invisible in what they perceive as a predominantly youth-oriented culture (Heaphy, 2007; Lyons et al., 2015). Historical experiences of discrimination have also been found to vary between older lesbian women and gay men (Lyons et al., 2021) as well as a wide range of other distinct life experiences and outcomes (Muraco & Fredriksen-Goldsen, 2016).

Given the impact of sexuality-related stigma on mental health, knowing whether challenges are also experienced from other forms of stigma may be important when assessing risk factors. As depicted by the Iridescent Life Course perspective (Fredriksen-Goldsen et al., 2019), consideration needs to be given to a range of intersecting backgrounds and identities, such as age and gender, in understanding the well-being of older lesbian and gay adults. Such considerations may be especially important for enabling policies and programs that specifically target and support the mental health of these groups. In Australia, as in many other developed countries, this group came of age when sexual orientation discrimination was greater than today (Lyons et al., 2015). Whether or not ageism is a further compounding factor for older lesbian women and gay men requires investigation.

In this article, we present findings from a nationwide survey involving lesbian women and gay men aged 60 years and older living in Australia. We specifically focused on experiences of ageism and the degree to which participants experienced concerns about being accepted by others regarding their sexual orientation (hereafter referred to as 'sexuality acceptance concerns'). Sexuality acceptance concerns has been operationalised as a scale measure (Mohr & Kendra, 2011), with the construct encompassing the extent to which people anticipate rejection or negative judgement based on how their sexual orientation is perceived by others. Sexuality acceptance concerns, as defined above, has been used as one broad indicator of the degree to which people experience stress from sexuality-related stigma (e.g. Tatum & Ross, 2020) and has been shown to be associated with poorer well-being (e.g. Hu et al., 2013).

The main aim was to identify the extent to which experiences of ageism and sexuality acceptance concerns each predicted aspects of mental health and well-being and whether interactions between these two forms of stigma predicted poorer outcomes than either form alone (i.e. a multiplicative effect). For reasons noted above, we examined lesbian women and gay men separately to understand the predictors for each gender. As mentioned earlier, this is important, as existing research suggests that analyses should be run separately given the range of distinct life experiences and outcomes documented for lesbian women and gay men. For this reason, the objective was not to make direct comparisons, but conduct analyses separately to provide results specific to each group. This study was exploratory given the lack of previous work to inform whether potential multiplicative effects of ageism and sexuality-related stigma are likely among either older lesbian women, gay men, or both. We examined several mental health and well-being indicators, including psychological distress, positive mental health, and resilience.

Method

Participants

In total, 895 adults aged 60 years and older from a gender and sexually diverse population completed the survey. This sample included 35 transgender women, four transgender men, and 16 participants with a gender identity other than male, female, transgender, or did not specify. In addition, 48 participants were bisexual and a further 56 had a sexual orientation other than lesbian, gay, or bisexual. These groups can experience sexuality-related stigma in different ways to cisgender lesbian women and gay men, which requires a separate focus on each group. However, the number of participants in each of these groups was too small to analyse statistically in this instance and therefore did not form part of the analysis in this article. We also removed participants with missing data on any of the predictor or demographic variables. This left a final sample of 181 lesbian women and 432 gay men, who were aged 60–85 years ($M = 65.83$, $SD = 4.59$).

Materials

Participants completed a larger questionnaire covering diverse topics related to health and well-being from which the following measures were used.

Experiences of ageism

The Ageism Survey (Palmore, 2001) was used, which involves 20 items measuring experiences of ageism. Examples include 'I was told a joke that pokes fun at old people' and 'I was patronised or "talked down to" because of my age'. Participants rated how often they have experienced each event on a scale: 0 (Never); 1 (Once); 2 (More than once). Item scores were summed for a total between 0 and 40 (higher scores indicate more frequent experiences of ageism). The scale exhibits good reliability and validity, with items loading onto a single factor (Palmore, 2001). Internal reliability (Cronbach's alpha) in this study was $\alpha = .87$.

Sexuality acceptance concerns

The Acceptance Concerns subscale from the Lesbian, Gay, and Bisexual Identity Scale (Mohr & Kendra, 2011) was used to measure concerns over acceptance of one's sexual orientation. It has three items: 'I can't feel comfortable knowing that others judge me negatively for my sexual orientation'; 'I think a lot about how my sexual orientation affects the way people see me'; 'I can't feel comfortable knowing that others judge me negatively for my sexual orientation'. Response options are from 1 (Disagree strongly) to 6 (Agree strongly). Item scores were summed and averaged (higher scores indicate greater acceptance concerns). Cronbach's alpha was $\alpha = .74$.

Psychological distress

The K10 Psychological Distress Scale was used (Kessler et al., 2002). On a list of 10 items, such as 'feeling restless or fidgety' or 'feeling depressed', participants reported how often in the past 30 days they experienced these symptoms on a scale from 1 (None of the time) to 5 (All of the time). Item scores were

summed for a total between 10 and 50 (higher scores indicate greater distress). Cronbach's alpha was $\alpha = .92$.

Positive mental health

The Short Warwick Edinburgh Mental Well-Being Scale (Fat et al., 2017; Stewart-Brown et al., 2009) was used to measure positive mental health, such as feelings of optimism and coping. On a list of seven items, such as 'I've been dealing with problems well', participants described their feelings over the last two weeks on a scale from 1 (None of the time) to 5 (All of the time). Item scores were summed for a total between 7 and 35 (higher scores indicate greater positive mental health). Cronbach's alpha was $\alpha = .90$.

Resilience

The Brief Resilience Scale was used to measure the ability to bounce back or recover after stress (Smith et al., 2008). It comprises six items, such as 'I tend to bounce back quickly after hard times'. Response options ranged from 1 (Strongly disagree) to 5 (Strongly agree). Item scores were summed for a total between 6 and 30 (higher scores indicate greater resilience). Cronbach's alpha was $\alpha = .89$.

Sociodemographic variables

Participants completed a series of sociodemographic questions. These included their age, gender, sexual orientation, residential location (capital city or inner suburban, outer suburban, regional [pop. 5000 or more], rural or remote area), highest educational qualification (secondary or lower, non-university tertiary, undergraduate university degree, postgraduate university degree), employment status (full-time, part-time or casual, retired, unemployed, student, other; those who reported as unemployed, student, or indicated some other status were grouped into a single 'other' category due to small numbers for each of these sub-categories), annual pre-tax income (AU\$0-19,999, 20,000-49,999, 50,000-99,999, 100,000+), country of birth (Australia, overseas), and their relationship status (relationship, no relationship).

Procedure

The survey was administered between August 2017 and December 2017 and available to those living in Australia aged 60 years and older. An online version of the survey was promoted using paid Facebook advertising. The survey was also promoted through newsletters and email lists of a range of ageing and aged care community organisations. Participants could request a paper version using instructions in the advertisements, which included a reply-paid envelope to return it by post. The survey was additionally advertised at a lesbian, gay, bisexual, transgender, and intersex ageing conference and seniors' events in Victoria, Australia, where paper versions were also made available. We used this variety of recruitment methods to obtain a demographically diverse sample. Participants were informed of the purpose of the research and assured that their responses were anonymous via an information statement at the beginning of the survey. The La Trobe University Human Ethics Committee [reference: S17-088] provided ethical approval for the study.

Statistical analysis

Analyses were conducted separately for the lesbian women and gay men. A sample profile was compiled using descriptive statistics for all variables, followed by a correlation matrix of the key study variables (experiences of ageism, sexuality acceptance concerns, psychological distress, positive mental health, resilience). *T*-tests were used to identify any significant differences in the key study variables between the lesbian women and gay men. Separate multivariable linear regression analyses identified significant independent sociodemographic predictors of experiences of ageism and sexuality acceptance concerns. Separate hierarchical multivariable linear regressions were then conducted for each well-being variable (psychological distress, positive mental health, resilience). At step 1, experiences of ageism and sexuality acceptance concerns were entered as predictors. At step 2, an interaction term for these two predictors was added. The interaction term was created by first converting the scores on experiences of ageism and sexuality acceptance concerns into *z*-scores and then multiplying the scores with one another. Each regression analysis adjusted for sociodemographic variables that were significantly associated with either ageism or sexuality acceptance concerns. To assist in interpreting significant interaction effects, figures display overall patterns in which scores on experiences of ageism and sexuality acceptance concerns were dichotomised using a median split to indicate higher and lower levels. Analyses were conducted using Stata Version 14.2.

Results

Descriptive statistics

Almost all participants (98.9%) completed the online version of the survey. Table 1 displays the sample profile. For the lesbian women, a majority were aged 60-69 years, had a university education, were retired, earned less than \$50,000, and were born in Australia. Similar proportions were living across the different residential locations. For the gay men, a majority were aged 60-69 years, did not have a university education, were retired, earned less than \$50,000, and were born in Australia. Almost one third were living in a capital city or inner suburban area. Just over two-thirds of the lesbian women and approximately one half of the gay men were in a relationship. Table 1 also displays descriptive statistics for the key study variables. There were no significant differences in these between the lesbian and gay men. Table 2 displays a correlation matrix of the key study variables. All variables were significantly correlated, suggesting close relationships with experiences of ageism, sexuality acceptance concerns, and well-being. No multicollinearity problems were found between the variables (VIFs were <5 and tolerance scores $>.20$).

Predictors of experiences of ageism

Table 3 displays sociodemographic predictors of experiences of ageism. Among the lesbian women, experiences of ageism were significantly greater for those aged 65-69 compared to those aged 60-64 ($F[2, 164] = 5.39, p = .005$) and for those whose employment was categorised as 'other' (which included unemployed, student, or some other employment status that was not full-time or part-time/casual) compared to those who were

Table 1. Sample profile ($N=613$).

	Lesbian women		Gay men	
	No.	%	No.	%
Age				
60–64 years	84	46.4	185	42.8
65–69 years	63	34.8	158	36.6
70+ years	34	18.8	89	20.6
Residential location				
Capital city or inner suburban	48	26.5	159	36.8
Suburban	47	26.0	116	26.9
Regional	47	26.0	109	25.2
Rural or remote	39	21.5	48	11.1
Highest educational qualification				
Secondary or lower	24	13.3	109	25.2
Non-university tertiary	48	26.5	114	26.4
Undergraduate	52	28.7	131	30.3
university degree				
Postgraduate university degree	57	31.5	78	18.1
Employment status				
Full-time	30	16.6	69	16.0
Part-time or casual	39	21.5	79	18.3
Retired	88	48.6	245	56.7
Other	24	13.3	39	9.0
Annual pre-tax income (AUD)				
0–19,999	21	11.6	49	11.3
20,000–49,999	74	40.9	181	41.9
50,000–99,999	49	27.1	120	27.8
100,000+	37	20.4	82	19.0
Country of birth				
Australia	124	68.5	325	75.2
Overseas	57	31.5	107	24.8
Relationship status				
No relationship	59	32.6	213	49.3
Relationship	122	67.4	219	50.7
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Experiences of ageism	8.46	6.88	7.79	7.33
Sexuality acceptance concerns	2.82	1.25	2.80	1.23
Psychological distress	16.00	6.19	15.78	6.52
Positive mental health	26.60	4.83	26.99	5.07
Resilience	21.44	5.25	21.69	5.15

Note. The 'other' category for employment status included those who were unemployed, students, or selected the 'other' option.

Table 2. Correlation matrix of key study variables.

	1	2	3	4	5
1. Experiences of ageism	1.00				
2. Sexuality acceptance concerns	.29*	1.00			
3. Psychological distress	.30*	.30*	1.00		
4. Positive mental health	-.21*	-.22*	-.68*	1.00	
5. Resilience	-.19*	-.30*	-.60*	.62*	1.00

Note. * $p < .001$.

retired ($F[3, 164] = 4.24, p = .007$). Among the gay men, experiences of ageism were significantly greater for those working full-time and for those whose employment was categorised as 'other' compared to those who were retired ($F[3, 415] = 3.57, p = .014$). In addition, experiences of ageism were significantly greater for those born overseas compared to those born in Australia ($F[1, 415] = 5.15, p = .024$). There were no other significant predictors of experiences of ageism for either the lesbian women or the gay men.

Predictors of sexuality acceptance concerns

Table 4 displays sociodemographic predictors of sexuality acceptance concerns. Lesbian women with a postgraduate or non-university tertiary degree reported significantly greater

sexuality acceptance concerns compared to those with a secondary or lower education ($F[3, 164] = 4.14, p = .007$). Also, lesbian women aged 65–69 years reported significantly greater sexuality acceptance concerns; however, the overall effect of this variable was not significant, thus suggesting a relatively weak finding. There were no other significant predictors of sexuality acceptance concerns for either the lesbian women or the gay men.

Experiences of ageism and sexuality acceptance concerns as predictors of well-being

Table 5 displays results of the hierarchical multivariable regressions predicting well-being. At step 1 for the lesbian women, greater experiences of ageism significantly predicted greater

Table 3. Variables predicting experiences of ageism among older lesbian women and gay men.

	Lesbian women			Gay men		
	<i>M</i> (SD)	<i>b</i> [95% CI]	<i>p</i>	<i>M</i> (SD)	<i>b</i> [95% CI]	<i>p</i>
Age group			.005			.058
60–64 years	7.39 (6.33)	Ref		9.11 (7.81)	Ref	
65–69 years	10.29 (7.46)	3.67 [1.35, 5.99]		7.20 (6.84)	–1.26 [–2.88, 0.36]	
70+ years	7.74 (6.57)	0.53 [–2.44, 3.51]		6.09 (6.70)	–2.32 [–4.28, –0.37]	
Residential location			.092			.277
Capital city/inner suburban	8.15 (6.14)	Ref		7.86 (7.52)	Ref	
Suburban	7.00 (6.72)	–1.27 [–4.13, 1.60]		7.59 (7.33)	–0.42 [–2.17, 1.33]	
Regional	8.60 (7.39)	0.56 [–2.23, 3.34]		8.55 (7.57)	0.57 [–1.21, 2.36]	
Rural or remote	10.46 (7.07)	2.47 [–0.42, 5.35]		6.33 (6.01)	–1.80 [–4.15, 0.55]	
Highest educational qualification			.558			.282
Secondary or lower	6.25 (5.76)	Ref		6.91 (6.64)	Ref	
Non-university tertiary	8.50 (7.61)	2.03 [–1.36, 5.42]		8.15 (7.85)	1.28 [–0.62, 3.18]	
Undergraduate university	9.04 (6.71)	2.32 [–1.03, 5.68]		8.48 (7.47)	1.58 [–0.26, 3.42]	
Postgraduate university	8.84 (6.82)	2.13 [–1.26, 5.51]		7.33 (7.21)	0.26 [–1.87, 2.38]	
Employment			.007			.014
Retired	8.70 (6.44)	Ref		6.55 (6.39)	Ref	
Full-time	7.87 (7.55)	–0.36 [–4.07, 3.35]		9.35 (8.32)	2.59 [0.43, 4.75]	
Part-time or casual	5.87 (6.07)	–1.95 [–4.66, 0.76]		8.75 (8.55)	1.70 [–0.17, 3.57]	
Other	12.54 (7.19)	4.49 [1.25, 7.73]		10.90 (6.89)	3.26 [0.71, 5.82]	
Annual pre-tax income (AUD)			.842			.112
0–19,999	10.52 (9.13)	Ref		8.96 (7.96)	Ref	
20,000–49,999	8.55 (6.14)	–0.96 [–4.29, 2.37]		8.18 (7.77)	–0.31 [–2.61, 2.00]	
50,000–99,999	7.80 (7.28)	–1.35 [–5.10, 2.41]		6.65 (6.52)	–2.42 [–4.96, 0.12]	
100,000+	8.00 (6.33)	–0.22 [–4.72, 4.29]		7.89 (6.98)	–1.30 [–4.11, 1.51]	
Country of birth			.908			.024
Australia	8.31 (7.19)	Ref		7.40 (7.11)	Ref	
Overseas	8.79 (6.20)	–0.13 [–2.32, 2.07]		8.97 (7.89)	1.85 [0.25, 3.45]	
Relationship status			.452			.321
Not in a relationship	9.05 (7.88)	Ref		8.26 (7.75)	Ref	
In a relationship	8.18 (6.36)	–0.89 [–3.21, 1.44]		7.33 (6.89)	–0.74 [–2.20, 0.72]	

Note. The 'other' category for employment status included those who were unemployed, students, or selected the 'other' option. Ref: reference category.

psychological distress ($p = .003$) and lower positive mental health ($p = .027$). Greater sexuality acceptance concerns significantly predicted greater psychological distress ($p = .019$), lower positive mental health ($p = .008$), and lower resilience ($p = .008$). The same pattern of results was found in step 2. There was no significant effect of the interaction between experiences of ageism and sexuality acceptance concerns.

At step 1 for the gay men, greater experiences of ageism significantly predicted greater psychological distress ($p < .001$), lower positive mental health ($p = .01$), and lower resilience ($p = .01$). Greater sexuality acceptance concerns also significantly predicted greater psychological distress ($p < .001$), lower positive mental health ($p < .001$), and lower resilience ($p < .001$). The same pattern of results was found in step 2. However, the interaction between experiences of ageism and sexuality acceptance concerns significantly predicted psychological distress ($p = .001$) and resilience ($p = .001$). These interactions are depicted in Figure 1. Among participants higher on experiences of ageism, those who were also higher on sexuality acceptance concerns exhibited significantly greater psychological distress ($F[1, 212] = 6.84, p = .01$) and lower resilience ($F[1, 216] = 19.48, p < .001$) than those who were lower on sexuality acceptance concerns. However, among those lower on experiences of ageism, there was no significant relationship between sexuality acceptance concerns and psychological distress ($F[1, 191] = 3.71, p = .06$) or resilience ($F[1, 197] = 1.21, p = .27$).

Discussion

This study examined experiences of ageism, sexuality acceptance, and mental health in a sample of lesbian and gay adults aged 60 years and older in Australia, focusing on older lesbian women and gay men separately. In both groups, greater experiences of ageism and sexuality acceptance concerns were significantly linked to all well-being measures except for between ageism and resilience among the older lesbian women. In addition, significant interaction effects between experiences of ageism and sexuality acceptance concerns were found among the gay men in relation to psychological distress and resilience. While previous studies have found significant links between sexuality-related stigma and mental health (e.g. Lyons et al., 2021), this study highlights that ageism is also a potential factor for older lesbian women and gay men in line with previous studies of the general population (e.g. Han & Richardson, 2015; Lyons et al., 2018).

It also suggests that combined or multiplicative effects of these two forms of stigma may be present for older gay men, at least in the context of this study and regarding the specific measures used. Further investigation is needed to identify the reasons behind this. However, one possibility that may warrant attention is the potential effects of an emphasis on youth in some gay male communities. A loss of physical desirability, especially in youth-oriented contexts or communities, may be particularly challenging for some older gay

Table 4. Variables predicting sexuality acceptance concerns among older lesbian women and gay men.

	Lesbian women			Gay men		
	<i>M</i> (SD)	<i>b</i> [95% CI]	<i>p</i>	<i>M</i> (SD)	<i>b</i> [95% CI]	<i>p</i>
Age group			.109			.458
60–64 years	2.98 (1.29)	Ref		2.87 (1.21)	Ref	
65–69 years	2.59 (1.17)	–0.47 [–0.90, –0.03]		2.79 (1.25)	–0.06 [–0.35, 0.22]	
70+ years	2.85 (1.30)	–0.22 [–0.77, 0.34]		2.66 (1.23)	–0.21 [–0.56, 0.12]	
Residential location			.503			.983
Capital city/inner suburban	2.63 (1.25)	Ref		2.75 (1.25)	Ref	
Suburban	2.72 (1.11)	0.22 [–0.32, 0.75]		2.82 (1.20)	0.06 [–0.25, 0.36]	
Regional	2.83 (1.28)	0.16 [–0.36, 0.69]		2.82 (1.29)	0.04 [–0.27, 0.35]	
Rural or remote	3.17 (1.35)	0.42 [–0.12, 0.96]		2.83 (1.10)	0.00 [–0.40, 0.41]	
Highest educational qualification			.007			.600
Secondary or lower	2.25 (1.16)	Ref		2.74 (1.23)	Ref	
Non-university tertiary	2.94 (1.29)	0.66 [0.02, 1.29]		2.70 (1.24)	–0.01 [–0.34, 0.32]	
Undergraduate university	2.65 (1.17)	0.41 [–0.22, 1.04]		2.88 (1.24)	0.15 [–0.17, 0.47]	
Postgraduate university	3.11 (1.26)	1.04 [0.40, 1.67]		2.87 (1.22)	0.18 [–0.19, 0.55]	
Employment			.340			.544
Retired	2.88 (1.33)	Ref		2.77 (1.26)	Ref	
Full-time	2.94 (1.06)	0.22 [–0.48, 0.91]		2.76 (1.20)	–0.04 [–0.41, 0.34]	
Part-time or casual	2.56 (1.19)	–0.35 [–0.86, 0.16]		2.76 (1.23)	–0.06 [–0.38, 0.27]	
Other	2.86 (1.31)	–0.16 [–0.77, 0.44]		3.13 (1.09)	0.29 [–0.15, 0.74]	
Annual pre-tax income (AUD)			.257			.873
0–19,999	2.83 (1.47)	Ref		2.87 (1.36)	Ref	
20,000–49,999	2.91 (1.28)	0.07 [–0.56, 0.69]		2.84 (1.22)	0.04 [–0.35, 0.45]	
50,000–99,999	2.73 (1.28)	–0.18 [–0.88, 0.52]		2.78 (1.24)	0.01 [–0.43, 0.45]	
100,000+	2.77 (1.04)	–0.64 [–1.48, 0.21]		2.68 (1.16)	–0.11 [–0.60, 0.38]	
Country of birth			.892			.322
Australia	2.80 (1.25)	Ref		2.77 (1.23)	Ref	
Overseas	2.87 (1.27)	0.03 [–0.38, 0.44]		2.88 (1.22)	0.14 [–0.14, 0.42]	
Relationship status			.211			.330
Not in a relationship	2.71 (1.34)	Ref		2.87 (1.23)	Ref	
In a relationship	2.87 (1.21)	0.28 [–0.16, 0.71]		2.72 (1.23)	–0.13 [–0.38, 0.13]	

Note. The 'other' category for employment status included those who were unemployed, students, or selected the 'other' option. Ref: reference category.

men (Heaphy, 2007) and, when combined with sexuality stigma, may result in feeling especially marginalised. Indeed, in a qualitative study in which older gay men in Australia reflected on their lives, participants spoke about losing their attractiveness and becoming invisible or feeling unwelcome within some communities (e.g. Lyons, et al., 2015).

While significant multiplicative effects were not evident for the lesbian women in this study, it is worth noting that the sample for this group was smaller than that for the older gay men. Some caution is therefore required in interpreting the results for the older lesbian women. A larger sample, and thus greater statistical power, may be needed to fully determine the presence or absence of multiplicative effects. That said, almost all main effects were in fact significant for the older lesbian women. While the interactions between experiences of ageism and sexuality acceptance concerns were not significant, none of these appeared to reflect a trend toward a notable effect, with standardised regression coefficients close to zero. Nevertheless, it will be important for future studies to further test and corroborate our findings using a larger sample of older lesbian women before definitive conclusions are made. It is also likely that this group faces gender discrimination. In addition to larger samples, it would therefore be useful for future research to also identify whether multiplicative effects, according to a greater risk perspective (Greene, 2000; Lytle et al., 2018), become more apparent when gender-related stigma is considered.

As previous studies have shown, there are distinct life experiences and outcomes for lesbian women and gay men. Running analyses separately for these groups was therefore an important consideration in this study to help understand the predictors of mental health and well-being for each gender. In a similar vein, additional research is needed to examine the specific types of age-related discrimination that are experienced by each group, as well as the contexts in which these occur and the kinds of support available to them. It is also worth noting that experiences of ageism and sexuality acceptance concerns were significantly correlated, which suggests there may be contexts or communities in which people are more likely to experience both forms of stigma. Although further investigation is needed, overall results from this study nevertheless suggest that experiences of ageism are significantly linked to aspects of mental health among both older lesbian women and gay men. Thus, ageism is a potentially significant issue in this older group that requires addressing.

Several significant predictors were found for experiences of ageism and sexuality acceptance concerns, such as age, employment, and country of birth, which may be useful for exploring particular contexts and backgrounds in future research. For example, age-related discrimination commonly occurs in the workplace (Australian Human Rights Commission, 2015), but the effects can vary between women and men (Hughes & Kentlyn, 2015; McGann et al., 2016). Country of birth, for older

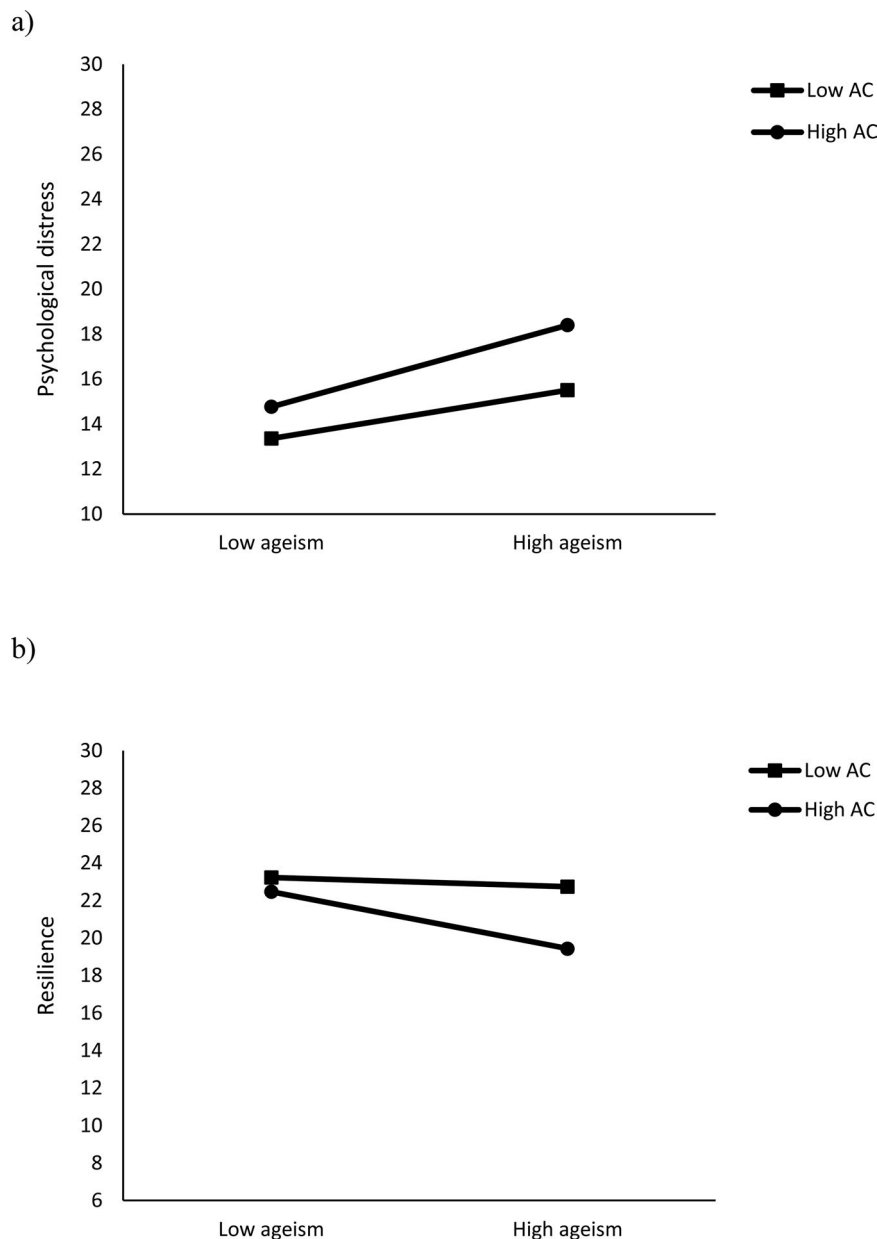


Figure 1. Psychological distress (a) and resilience (b) among older gay men by high or low sexuality acceptance concerns according to whether participants experienced higher or lower levels of ageism. AC: sexuality acceptance concerns.

gay men, also points to potential cultural variations in experiences. A measure of ethnicity would be useful in future research, including investigating potential multiplicative effects of racism. In addition, a majority of participants reported a relatively low income, and it may be useful to examine whether experiences differ among higher socioeconomic groups (Hurd Clarke & Korotchenko, 2016). The lesbian women were also relatively highly educated in our study. Although education was not a significant predictor of experiences of ageism, and this variable was controlled for in the hierarchical regressions for the lesbian women, it may nevertheless be important to examine how education and other aspects of socioeconomic status contextualise people's experiences, especially in future research that examines specific experiences of age-related discrimination.

Qualitative research that investigates in greater detail the lived experiences of the intersections of sexuality and age-related discrimination, and their specific impacts, would be especially useful. For example, such studies could examine historical accounts of how older lesbian and gay adults have experienced multiple forms of stigma, including how age and

sexuality-related stigma have emerged in different aspects of their lives and potentially intersect in relation to mental health and well-being. According to the Iridescent Life Course Perspective (Fredriksen-Goldsen et al., 2019), people's lives are likely shaped by historical life events. Overall, the current older group of lesbian and gay adults has been exposed to far greater levels of sexuality-related stigma throughout much of their adult lives than younger generations of today. It is possible that these experiences have shaped how they perceive and respond to different forms of discrimination today, including ageism. Specific historical and current contexts, such as socioeconomic status and additional intersecting backgrounds, such as ethnicity, could also be explored to further understand different ways in which ageism is experienced and impacts the lives of older lesbian and gay adults (Averett, 2013).

While additional research is needed to corroborate and unpack our findings, for now our study suggests that multiplicative effects of sexuality and age-related stigma appear for older gay men but that the mental health of older lesbian women is nevertheless impacted by both forms of stigma. These

Table 5. Experiences of ageism and sexuality acceptance concerns as predictors of well-being among older lesbian women and gay men.

	Regression coefficients			
	Step 1		Step 2	
	<i>B</i>	β	<i>B</i>	β
Lesbian women				
Psychological distress				
Experiences of ageism	1.34	.22**	1.28	.21**
Sexuality acceptance concerns	1.04	.17*	1.03	.17*
Ageism \times sexuality acceptance concerns			.24	.04
ΔR^2		–		.00
Total R^2		.31***		.31***
Positive mental health				
Experiences of ageism	–.79	–.16*	–.76	–.16*
Sexuality acceptance concerns	–.94	–.20**	–.94	–.20**
Ageism \times sexuality acceptance concerns			–.16	–.03
ΔR^2		–		.00
Total R^2		.26***		.26***
Resilience				
Experiences of ageism	–.05	–.01	–.04	–.01
Sexuality acceptance concerns	–1.09	–.21**	–1.09	–.21**
Ageism \times sexuality acceptance concerns			–.01	.00
ΔR^2		–		.00
Total R^2		.16***		.16***
Gay men				
Psychological distress				
Experiences of ageism	1.46	.23***	1.42	.22***
Sexuality acceptance concerns	1.68	.26***	1.51	.23***
Ageism \times sexuality acceptance concerns			.92	.16***
ΔR^2		–		.02***
Total R^2		.17***		.19***
Positive mental health				
Experiences of ageism	–.65	–.13*	–.64	–.13*
Sexuality acceptance concerns	–.91	–.18***	–.86	–.17***
Ageism \times sexuality acceptance concerns			–.38	–.08
ΔR^2		–		.01
Total R^2		.09***		.10***
Resilience				
Experiences of ageism	–.65	–.12*	–.61	–.12*
Sexuality acceptance concerns	–1.55	–.30***	–1.43	–.28***
Ageism \times sexuality acceptance concerns			–.71	–.15***
ΔR^2		–		.02***
Total R^2		.13***		.16***

Note. The results reported at steps 1 and 2 are adjusted for sociodemographic predictors of experiences of ageism and/or sexuality acceptance concerns. For the lesbian women, these were age, education, and employment. For the gay men, these were employment and country of birth. Age was included as a continuous variable in these analyses. *B*: unstandardised regression coefficient. β : standardised regression coefficient. R^2 : proportion of variance in the well-being scores accounted for by the variables, including the sociodemographic control variables. ΔR^2 : change in R^2 between steps 1 and 2. * $p < .05$ ** $p < .01$ *** $p < .001$.

findings are useful for anyone working with older lesbian and gay people in improving their mental health, including positive forms of mental health. The findings highlight the importance of understanding and addressing intersecting stigmatised identities (Fredriksen-Goldsen et al., 2019) and, given the typically strong focus on sexuality-related stigma among older lesbian and gay adults, it is possible that age-related stigma attracts less attention (Lytle et al., 2018). Health and social service providers can work to ensure that their services are inclusive and culturally safe for lesbian and gay people (Molinari & McSweeney-Feld, 2017), and a greater awareness that ageism may affect these groups should also inform interactions with clients to prevent further marginalisation. In Australia, a Royal Commission into Aged Care Quality and Safety was conducted recently, with a final report published in 2021. The Commission highlighted critical issues in the provision of services to older people, including concerns related to ageism such as

victimisation and discrimination. Going forward, it will also be important for policies to address the negative impact of ageism in conjunction with challenges faced from sexuality-related stigma.

Limitations and future research

Several limitations of this study deserve consideration. First, it involved a cross-sectional design, which precludes inferring causality from our analysis. However, experiences of ageism have predicted poorer mental health in a longitudinal design of the general population (Han & Richardson, 2015). The older gay men also comprised a larger sample than the older lesbian women, which would have provided greater statistical power for identifying significant associations. As mentioned earlier, it is therefore important that further studies be conducted with larger samples of lesbian women. Our study should therefore

be regarded as a starting point, with further research needed before drawing firm conclusions, especially in relation to older lesbian women.

Second, other forms of discrimination (e.g. racism, gender discrimination) were not examined. In future, it would be useful examining how different forms of stigma and discrimination intersect in relation to mental health. We also focused on a measure of sexuality acceptance concerns. While previously used as a broad indicator of sexuality stigma-related stress, more specific measures such as particular experiences of discrimination may produce some differences in results. It is also possible that stigma is experienced differently depending on whether a person is 'out' about their sexual orientation, which may be an important factor to include in future. It may also be worth conducting additional studies of sexual identity affirmation, or how positively or proud a person feels about their sexuality identity (Mohr & Kendra, 2011), as a further potential indicator of well-being.

Third, our sample was limited to cisgender and lesbian or gay-identifying participants. Other groups, such as people who identify as bisexual or trans, were not sufficient in number to enable separate reliable analyses. These groups are also likely to experience additional forms of stigma, such as biphobia and transphobia, which requires separate investigation. It is recommended that future research examine multiple forms of stigma in these groups as well, including ageism.

Fourth, the Ageism Survey (Palmore, 2001) was designed for a general population. Although a useful measure, it also does not address specific multidimensional aspects of ageism or benevolent ageism (e.g. Cary et al., 2017) and potentially unique forms of age-related stigma could be experienced by older lesbian and gay adults, such as discrimination within lesbian and gay communities. In future, investigating different aspects of ageism would be useful, including a measure specifically designed for this population. Also, a reference period was not specified for participant responses, so it is not quite apparent whether responses refer to the recent past or a longer period. In addition, it may be useful in future to examine internalised ageism, such as having negative views about one's own ageing (Wight et al., 2015), and how this might relate to outcomes reported in this study.

Finally, the study involved community-based convenience sampling and may not necessarily represent all older gay and lesbian people. Further studies involving additional sampling techniques are required to corroborate our findings. As mentioned earlier, qualitative research would also be beneficial for exploring the lived experiences of ageism and sexuality-related stigma in relation to well-being. A need also exists for further research internationally to identify how unique cultural contexts may play a role in experiences of ageism and associated impacts on mental health among older lesbian and gay adults.

Conclusions

In this study, experiences of ageism and sexuality acceptance concerns predicted poorer mental health and well-being among lesbian and gay adults aged 60 years and older in Australia. A multiplicative effect was also found among the gay men, where those who were higher in both ageism and sexuality acceptance concerns reported the poorest well-being, thus potentially suggesting that ageism and sexuality acceptance concerns may compound one another in some instances.

Further research is needed, especially that involves larger samples of older lesbian women, to further investigate potential ways in which ageism is experienced and relates to different aspects of mental health and well-being in these groups. In the meantime, overall findings from this study suggest a need for those working with older lesbian and gay adults, such as health professionals and service providers, to pay attention not only to potential negative effects of sexuality-related stigma, but also ageism.

Acknowledgements

We acknowledge LGBTIQ+ Health Australia (formerly the National LGBTI Health Alliance), COTA Australia, SANE Australia, and Carers Australia for their contributions to this project.

Disclosure statement

No potential conflict of interest was reported by the authors.

Funding

This research was funded by the Australian Research Council [grant number LP160100221].

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