








Health, well-being, and social support in older Australian lesbian and gay care-givers

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Abstract

Informal care-givers play an important role in society, and many of the people who provide this care are lesbian women and gay men. Being a care-giver is known to be associated with poorer health and well-being, and lesbian and gay care-givers report experiences of stigma and discrimination in the care-giving context. This study involved a survey of 230 lesbian women and 503 gay men aged 60 years and over living in Australia, of which 218 were care-givers. We compared care-givers to non-caregivers on a range of health and well-being measures, including psychological distress, positive mental health, physical health and social support. While we found no significant differences between these two groups, we further compared care-givers who were caring for an LGBTI person to those who were caring for a non-LGBTI person. Among the lesbian women, care-givers of an LGBTI person reported feeling less supported in their carer role and reported lower levels of social support more generally. They were also lower on positive mental health and physical health indicators. Among the gay men, care-givers of an LGBTI person also reported feeling less supported in their carer role, but there were no differences in reported levels of social support more generally or health and well-being compared to those caring for a non-LGBTI person. Overall, results from this study suggest that older lesbian and gay care-givers may be facing some challenges related to their well-being and feeling supported, especially if they are caring for another LGBTI person.

KEYWORDS

care-giving, discrimination, LGBTI, mental health, older people, well-being

1 | INTRODUCTION

Informal care-givers who provide unpaid care to family, friends and partners experiencing health or mobility issues provide a valuable service to society that would otherwise need to be provided by a health or social care service (Fredriksen-Goldsen & Hoy-Ellis, 2007; Fredriksen-Goldsen, Kim, Muraco, & Mincer, 2009). Many of the people who provide informal care are older lesbian women and gay

men (Fredriksen, 1999; Fredriksen-Goldsen et al., 2011; Grossman, D'Augelli, & Dragowski, 2007; Shippy, 2007), with some studies finding that lesbian and gay people are more likely to be care-givers than non-lesbian and gay people (Boehmer, Clark, Heeren, Showalter, & Fredman, 2018; Croghan, Moone, & Olson, 2014; Metlife Mature Market Institute, 2010). This is likely to be in part due to the marginalisation from mainstream services and society experienced by lesbian and gay people, resulting in their need to obtain support and

care from within the lesbian and gay communities. Thus, older lesbian and gay people play an important and perhaps unrecognised care-giving role, which provides a reduction of pressure on health and social services that is of significant social and economic value.

Older lesbian and gay care-givers often care for friends, relationship partners, family and other lesbian and gay people (Anderson & Flatt, 2018; Cantor, Brennan, & Shippy, 2004; Fredriksen-Goldsen et al., 2011; Grossman et al., 2007; Metlife Mature Market Institute, 2010; Muraco & Fredriksen-Goldsen, 2011; Shippy, 2007; Shiu, Muraco, & Fredriksen-Goldsen, 2016). Research on care-givers more generally indicates that they can experience negative effects from care-giving, likely due to the challenges and burdens of the role (Adelman, Tmanova, Delgado, Dion, & Lachs, 2014; Pinquart & Sörensen, 2003; Smith, Williamson, Miller, & Schulz, 2011). Research has also suggested that among older lesbian women and gay men, care-givers experience poorer mental and physical health than non-caregivers (Fredriksen-Goldsen et al., 2011; Hughes, 2017).

In addition to the usual challenges of care-giving, lesbian and gay care-givers are more likely to experience additional stress in their care-giving role due to issues involving stigma and discrimination related to their sexual orientation (Barrett & Crameri, 2015; Brotman et al., 2007; Fredriksen-Goldsen & Hooyman, 2007; Fredriksen-Goldsen & Hoy-Ellis, 2007; Fredriksen-Goldsen et al., 2009; Fredriksen-Goldsen & Muraco, 2010; Hash, 2006; Hash & Mankowski, 2017; Shippy, 2007). This is predicted by Minority Stress Theory (Meyer, 2003), which proposes that everyday experiences of stigma and discrimination can negatively impact well-being among gay and lesbian people by contributing to ongoing or chronic stress. Given that the care-giving role involves interacting with health professionals, older lesbian and gay care-givers can face fears around experiencing discrimination in these interactions, especially when caring for a same-sex partner (Fredriksen-Goldsen et al., 2011; Fredriksen-Goldsen & Muraco, 2010; Hash, 2006; Price, 2010; Washington et al., 2015; Willis, Ward, & Fish, 2011). For example, hospital staff may exclude from the decision-making process lesbian and gay care-givers who are a partner but not legally married to those they care for, or who are not biological family (Aronson, 1998; Coon, 2007; Fredriksen-Goldsen & Hooyman, 2007; Hash, 2001; Kia, 2012). Lesbian and gay care-givers have also reported that the expectation of stigma and discrimination about their sexual orientation affected how they dealt with health professionals in their care-giving role (Barrett, Whyte, Comfort, Lyons, & Crameri, 2015; Brotman et al., 2007; Hash, 2001; Price, 2010; Shippy, 2007; Washington et al., 2015). Furthermore, these concerns are likely to be greater among older lesbian and gay people, who have lived through a time when homosexuality was criminalised and considered a mental health problem, as well as living through the stigma of the HIV/AIDS epidemic (Fredriksen-Goldsen & Muraco, 2010; Lyons, Croy, Barrett, & Whyte, 2015).

While all of the above factors could potentially contribute to poorer health and well-being among lesbian and gay care-givers, it may also be important to consider whether lesbian and gay care-givers are caring for another LGBTI (lesbian, gay, bisexual, transgender

What is known about this topic

- Being a care-giver is associated with poorer health and well-being.
- Many people providing care are older lesbian and gay people.
- Lesbian and gay care-givers experience stigma and discrimination in care-giving contexts.

What this paper adds

- In a sample of lesbian and gay people aged 60 years and older, comparisons of care-givers to non-caregivers found no differences on a range of health and well-being measures.
- Those caring for an LGBTI person experienced poorer outcomes on health and well-being compared to those caring for a non-LGBTI person, particularly among lesbian women.
- These findings are useful for health and social services aiming to provide accessible and inclusive support for lesbian and gay care-givers.

or intersex) person, even when that person is not a partner. To our knowledge, quantitative studies have not investigated differences between caring for someone who is LGBTI and someone who is not among lesbian and gay care-givers (Cantor et al., 2004; Croghan et al., 2014; Fredriksen, 1999; Fredriksen-Goldsen et al., 2011, 2009; Grossman et al., 2007; Hughes, 2017; Metlife Mature Market Institute, 2010; Shippy, 2007; Shiu et al., 2016). However, concerns and experiences about stigma and discrimination may be compounded if the care-receiver is also LGBTI, as both the care-giver and care-receiver may face these issues. Care-givers would need to be able to address and support the care-receiver's concerns and experiences, as well as coping with their own concerns or experiences. Research on LGBT Australians of all ages has found that participants reported experiences of sexual orientation or gender identity discrimination towards the older LGBTI person they were caring for (Barrett & Crameri, 2015). This study also found that some LGBTI care-receivers were reluctant to access services due to a fear of discrimination, and other research indicates a link between experiences of discrimination and depression among older lesbian and gay care-recipients (Fredriksen-Goldsen et al., 2009), all of which can place additional strain on the care-giver. Therefore, it is important to examine whether caring for an LGBTI person versus a non-LGBTI person is associated with poorer health and well-being among lesbian and gay care-givers.

In addition to examining the health and well-being of lesbian and gay care-givers who are looking after other LGBTI or non-LGBTI people, it is also important to examine social support. Research shows that a lack of support among older lesbian and gay care-givers is

associated with greater care-giver burden (Shippy, 2007) and poorer mental health (Brotman et al., 2007). A recent study on older lesbian and gay care-givers found that social support was negatively associated with care-giving demands, perceived stress, and depressive symptoms (Shiu et al., 2016). While there may be a range of contributing factors, this research suggests that feeling supported in the caring role is likely to be a major factor associated with coping (Chappell & Funk, 2011). Stigma and discrimination may result in lower social support in the caring role for lesbian women and gay men. Lesbian and gay care-givers may be less likely to have support from their families of origin – that is, the family in which they were raised – due to rejection related to their sexual orientation (Aronson, 1998; Barrett & Cramer, 2015; Fredriksen, 1999; Fredriksen-Goldsen & Hoy-Ellis, 2007; Grossman et al., 2007; Muraco & Fredriksen-Goldsen, 2011). They may also face hostility from the family of the person they care for, particularly in cases where people are caring for a same-sex partner (Aronson, 1998; Hash, 2001, 2006).

Stigma and prejudice can further prevent lesbian and gay care-givers from accessing support from other sources, such as carer support groups (Barrett & Cramer, 2015; Brotman et al., 2007; Kia, 2012; Moore, 2002; Price, 2010). Older lesbian and gay people in particular can also struggle to find social support due to some lesbian and gay community groups being more youth-oriented (Jacobs, Rasmussen, & Hohman, 1999; Kia, 2012; Lyons et al., 2015) and due to a lower likelihood of having a partner, children or contact with their families of origin (Croghan et al., 2014; Hash & Mankowski, 2017). A lower likelihood of having a partner and children may be partly due to the marginalisation faced by gay and lesbian people, which can leave some of them with fewer opportunities to form relationships and have children (Barrett et al., 2015). Families of origin may be rejecting of their sexual orientation, leading gay and lesbian people to instead rely on families of choice. Furthermore, qualitative research has found that care-givers experienced it as an exception when they received good service from health professionals and support services (Hash, 2001). Given the stigma-related challenges that lesbian and gay care-givers can face, their need for support may be especially acute when they are looking after another LGBTI person.

In this study, we examined the health and well-being of older lesbian and gay care-givers, and had two main aims. The first aim was to compare care-givers and non-caregivers on a range of health, well-being, and social support variables. The second aim was to focus on the care-givers to compare the health, well-being, and social support between those caring for an LGBTI person versus those caring for a non-LGBTI person. Throughout, we examine lesbian women and gay men separately to allow for the possibility that experiences may vary between the two groups.

2 | METHOD

2.1 | Participants

Lesbian and gay-identified adults living in Australia and who were aged 60 years or older completed a nationwide survey of their

health and well-being. The initial sample included 1,358 participants, of which 463 were removed due to being incomplete or duplicate responses, leaving a sample of 895 participants. Many of these incomplete responses were from participants who did not proceed beyond the participant information statement, and may or may not have been members of the target population. Given that in this paper we were predominantly interested in care-givers who were providing care outside of a professional caring role, we excluded participants who reported receiving income for their professional employment as a carer ($n = 23$) and those who did not respond to the question about providing care ($n = 5$). Six women and 15 men reported receiving a carer payment or allowance from the government and were retained in the sample, since they were not professional care-givers but were members of the target population. A carer allowance is available from the Australian government to those who provide daily care to someone who has a disability or severe illness, or is frail aged, and who have a sole or combined income of less than AU\$250,000 per year. As most participants were either gay men ($n = 503$) or lesbian women ($n = 230$), we retained only these two groups for analysis. Substantially fewer participants were transgender women ($n = 35$), transgender men ($n = 4$), bisexual ($n = 48$) or had some other gender ($n = 16$) or sexual identity ($n = 56$), and could therefore not be included due to small cell sizes. Our final sample consisted of 218 care-givers and 515 non-caregivers aged 60–85 years ($M = 66.02$, $SD = 4.73$; $M_{men} = 66.23$, $SD_{men} = 4.86$; $M_{women} = 65.56$, $SD_{women} = 4.41$).

2.2 | Materials

Participants were presented with a range of questions in the survey that covered diverse aspects of their lives, such as physical and mental health, experiences of discrimination, social well-being and health and aged care service use, of which the following were included in this study:

2.2.1 | Care-giving

We asked participants, 'In the past four weeks, have you spent time providing care, help or assistance to someone who has a disability or serious illness or is frail aged?' (Yes/No) to determine whether or not they were care-givers. To those who responded 'Yes', we further asked, 'Did you receive payment for the care you provided?', which also allowed us to determine how many non-professional care-givers were receiving government support for their caring (Yes, I received the Carer Payment or Allowance from the Australian Government), and to distinguish between professional care-givers (Yes, I received income related to my employment as a carer) and unpaid, non-professional care-givers (No). We also allowed participants to specify some other option with an open-text response. We asked participants to whom they provided care, help or assistance (A member of my family of origin/A member of my family of choice/ Relationship partner/ Friend/Other [please specify]), and whether anyone for whom they provide care is lesbian, gay, bisexual, transgender or intersex (Yes/No).

In order to measure participants' experiences of the caring role, we developed two questions for the purpose of this study: 'I feel I have enough support I need in my carer role' and 'I find it difficult to cope in my carer role.' For these questions, participants responded on a five-point Likert-type scale ranging from 1 (Not at all) to 5 (Extremely).

2.2.2 | Psychological distress

The K10 Psychological Distress Scale (Kessler et al., 2002), a widely used measure that has been validated in older Australians (Anderson et al., 2013), was used to measure negative mental health in this study. The scale has 10 items, to which participants were asked how often during the past 30 days they experienced a range of symptoms of psychological distress (for example: '... you feel tired for no reason?' and '... you feel nervous') on a five-point scale ranging from 1 (None of the time) to 5 (All of the time). A total score between 10 and 50 was calculated by adding the items, where higher scores indicated greater psychological distress ($\alpha = 0.92$).

2.2.3 | Positive mental health

We used the seven-item Short Warwick Edinburgh Mental Well-Being Scale (SWEMWBS) to measure positive mental health (Fat, Scholes, Boniface, Mindell, & Stewart-Brown, 2017; Stewart-Brown et al., 2009), a validated scale measuring the extent to which people are flourishing. An example item from the scale is: 'I have been feeling optimistic about the future'. Participants respond by describing their feelings over the last two weeks on a scale ranging from 1 (None of the time) to 5 (All of the time). Scores are added to produce a total between 5 and 35, where higher scores indicate greater experiences of positive mental health ($\alpha = 0.91$).

2.2.4 | Physical health

We measured physical health using a single-item measure of self-rated general health, which has been shown to reliably measure actual physical health (DeSalvo, Blosner, Reynolds, He, & Muntner, 2006; Idler & Benyamini, 1997). Participants were asked, 'In general, would you say your health is...' and respond on a five-point scale (1 = poor, 2 = fair, 3 = good, 4 = very good, 5 = excellent).

2.2.5 | Social support

We measured the extent to which participants feel they have social support using the 12-item version of the Interpersonal Support Evaluation List (ISEL) (Cohen, Mermelstein, Kamarck, & Hoberman, 1985). An example item from the scale is: 'If I were sick, I could easily find someone to help me with my daily chores'. Participants responded on a scale from 1 (Definitely false) to 4 (Definitely true), where a total score between 12 and 48 is calculated by adding scores on all items, and higher scores indicate higher social support ($\alpha = 0.90$). The ISEL has been used in previous research on older Australian gay men (Lyons, Alba, & Pepping, 2017).

2.2.6 | Socio-demographic variables

We collected data on a range of socio-demographic variables, including age, gender, sexual orientation, residential location (1 = capital city or inner suburban), highest educational qualification (1 = secondary or lower), employment status (1 = full-time), pre-tax income (1 = 0–\$19,999), country of birth and their relationship status.

2.3 | Procedure

The survey was hosted online and was also available as a hard copy. Participants were recruited using a variety of methods in order to ensure we obtained a diverse sample. A link to the online survey was promoted through paid advertising on Facebook, and also via the contact lists and newsletters of relevant ageing and aged care community organisations. These online advertisements also included information on how participants could obtain a paper copy of the survey. Paper versions of the survey were made available at a number of LGBTI seniors' events in Victoria, Australia, including an LGBTI ageing conference. Reply-paid envelopes were provided for participants to return the surveys to the research team. All participants were provided with an information statement about the study, and asked to indicate their consent to participate prior to beginning the survey. All participants were assured that their responses were anonymous. Ethics approval for this study was provided by the La Trobe University Human Ethics Committee S17-088, and was open for participation between August and December 2017.

2.4 | Statistical analysis

A sample profile of descriptive statistics for the socio-demographic variables was compiled separately for care-givers and non-caregivers, with chi-square tests to examine any differences in the socio-demographic variables between these groups. We also compiled descriptive statistics on who participants were caring for. We compared caregivers to non-caregivers using separate analysis of variances (ANOVAs) on psychological distress, positive mental health, physical health and social support. Each analysis was then conducted as an analysis of covariance (ANCOVA) with the socio-demographic variables entered as covariates, since these variables are often linked to well-being. We then used ANOVAs to compare care-givers who cared for LGBTI people to those who cared for non-LGBTI people on psychological distress, positive mental health, physical health, social support, feeling supported in their carer role and difficulty coping in their carer role. Once again, each analysis was also conducted as an ANCOVA with the socio-demographic variables entered as covariates. Where there were missing data on the variables, these cases were excluded from the analysis. All of the above analyses, including the sample profile, were also conducted separately for women and men, and were conducted using Stata Version 14.1 (StataCorp). Posthoc

TABLE 1 Sample profile (N = 733)

	Care-givers		Non-caregivers		
	<i>n</i>	%	<i>n</i>	%	<i>p</i>
Women					
Residential location					
Capital city or inner suburban	25	27.8	37	26.6	.463
Suburban	19	21.1	39	28.1	
Regional	28	31.1	32	23.0	
Rural or remote	18	20.0	31	22.3	
Education					
Secondary or lower	14	15.4	19	13.7	.006
Non-university tertiary	13	14.3	46	33.1	
Undergraduate university degree	28	30.8	41	29.5	
Postgraduate university degree	36	39.6	33	23.7	
Employment status					
Full-time	10	11.0	23	16.7	.563
Part-time or casual	16	17.6	27	19.6	
Retired	52	57.1	73	52.9	
Other	13	14.3	15	10.9	
Income					
0–19,999	13	14.8	10	7.4	.237
20,000–49,999	39	44.3	57	42.2	
50,000–99,999	20	22.7	42	31.1	
100,000+	16	18.2	26	19.3	
Country of birth					
Australia	65	73.0	91	66.9	.330
Overseas	24	27.0	45	33.1	
Relationship status					
No relationship	24	27.6	53	39.0	.081
Relationship	63	72.4	83	61.0	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Age	65.71	4.03	65.45	4.66	.662
	<i>n</i>	%	<i>n</i>	%	
Men					
Residential location					
Capital city or inner suburban	40	31.5	147	39.2	.022
Suburban	31	24.4	99	26.4	
Regional	46	36.2	85	22.7	
Rural or remote	10	7.9	44	11.7	
Education					
Secondary or lower	35	27.6	99	26.3	.969
Non-university tertiary	35	27.6	100	26.6	
Undergraduate university degree	35	27.6	112	29.8	
Postgraduate university degree	22	17.3	65	17.3	

(Continued)

TABLE 1 (Continued)

	<i>n</i>	%	<i>n</i>	%	
Employment status					
Full-time	13	10.2	70	18.7	.123
Part-time or casual	18	14.2	59	15.7	
Retired	82	64.6	214	57.1	
Other	14	11.0	32	8.5	
Income					
0–19,999	17	13.9	42	11.5	.465
20,000–49,999	56	45.9	147	40.2	
50,000–99,999	29	23.8	108	29.5	
100,000+	20	16.4	69	18.9	
Country of birth					
Australia	98	77.8	274	74.7	.483
Overseas	28	22.2	93	25.3	
Relationship status					
No relationship	62	50.4	181	49.2	.815
Relationship	61	49.6	187	50.8	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Age	66.04	4.78	66.30	4.90	.609

Statistically significant values are highlighted in bold.

power analyses were conducted to test for a medium effect size of Cohen's $f = 0.25$ and $\alpha = 0.05$, two-tailed, using G*Power Version 3.1.9.2 (Faul, Erdfelder, Lang, & Buchner, 2007).

3 | RESULTS

3.1 | Sample profile

A sample profile is provided in Table 1. Almost all participants (98.9%) completed the survey online. There were few socio-demographic differences between care-givers and non-caregivers. Both care-givers and non-caregivers were fairly evenly distributed across residential locations among the women. The pattern among the men was somewhat different, with a significantly greater proportion of care-givers living in regional areas compared to non-caregivers, $\chi^2(3) = 9.65$, $p = .02$. Among the women, there were significantly more care-givers than non-caregivers who reported having a post-graduate university degree, and significantly more non-caregivers who had a non-university tertiary qualification than care-givers, $\chi^2(3) = 12.31$, $p = .01$, while there were no significant differences in education between care-givers and non-caregivers among the men. There were no other significant socio-demographic differences between care-givers and non-caregivers for either the women or the men. However, there were more women who reported being a carer ($n = 91$, 39.6%) than men ($n = 127$, 25.2%), $\chi^2(1) = 15.48$, $p < .001$.

Table 2 displays the type of person for whom care-givers were providing care. Caring for a friend or a member of their family of origin were the most common types, with a friend being the most

common among the men (44.1%) and a family of origin member the most common among the women (38.5%). In all, 22.0% of the women and 16.5% of the men reported caring for a relationship partner.

3.2 | Comparing care-givers to non-caregivers on mental health and social support

As displayed in Table 3, we compared care-givers to non-caregivers on psychological distress, positive mental health, physical health and social support. In the unadjusted analyses, men who were care-givers scored significantly higher on psychological distress than men who were not care-givers, $F(1, 482) = 5.21$, $p = .023$. However, this effect was no longer significant after adjusting for the socio-demographic variables. There were no significant differences between care-givers and non-caregivers among the women on any of the health, well-being or social support variables. Posthoc power analyses showed that these ANCOVAs had sufficient power for the women, $1 - \beta = 0.97$, and the men $1 - \beta = 0.99$.

3.3 | Comparing care-givers who care for LGBTI individuals to those who care for non-LGBTI individuals

In order to examine whether there were poorer outcomes associated with caring for an LGBTI person compared to non-LGBTI person, we compared these two groups among those who indicated that they were care-givers. Of those who reported being care-givers, 53 (41.7%) men and 38 (41.8%) women indicated that they were

TABLE 2 Type of person for whom care-givers were providing care

	Women		Men	
	<i>n</i>	%	<i>n</i>	%
A member of my family of origin	35	38.5	44	34.6
A member of my family of choice	10	11.0	9	7.1
Relationship partner	20	22.0	21	16.5
Friend	31	34.1	56	44.1
Other	7	7.7	13	10.2

Note: Participants could select more than one option.

caring for an LGBTI person. As displayed in Table 4, we compared care-givers who were caring for an LGBTI person to those who were caring for a non-LGBTI person on their carer experiences as well as the health, well-being and social support variables. For the men, there were no significant differences between care-givers of an LGBTI person and a non-LGBTI person in the unadjusted analyses. However, following adjustment for the socio-demographic variables, those who were caring for an LGBTI person were significantly lower on feeling supported in their carer role than those caring for a non-LGBTI person, $F(1, 101) = 6.04, p = .016$. The same effect was found for women, $F(1, 62) = 7.19, p = .009$; however there were some additional significant effects among the women. Prior to adjusting for the socio-demographic variables, those who were caring for an LGBTI person were significantly higher on psychological distress than those caring for a non-LGBTI person, $F(1, 85) = 6.60, p = .012$, and lower

on positive mental health, $F(1, 87) = 11.63, p = .001$ and physical health, $F(1, 89) = 10.31, p = .002$. After adjustment, those who were caring for an LGBTI person were significantly lower on positive mental health, $F(1, 62) = 7.09, p = .010$, physical health, $F(1, 64) = 4.02, p = .049$ and social support, $F(1, 60) = 5.73, p = .020$. Differences in psychological distress were no longer significant for the women after adjusting for the socio-demographic variables. Despite these significant effects, posthoc power analyses revealed that these ANCOVAs for the women were slightly underpowered, $1 - \beta = 0.65$, suggesting that these effect sizes may be larger than medium. However, the same tests had adequate power among the men, $1 - \beta = 0.80$.

4 | DISCUSSION

This study aimed to examine the health, well-being and social support of older lesbian and gay care-givers. Out of our sample of lesbian and gay Australians aged 60 and over, almost a third reported that they were non-professional care-givers. We began by examining socio-demographic differences between the care-givers and non-caregivers. Among the women, care-givers were more likely to have a postgraduate university degree than non-caregivers, and non-caregivers were more likely to have a non-university tertiary qualification than care-givers. Among the men, care-givers were more likely to be living in a regional area compared to non-caregivers. We also asked care-givers who they were providing care for, with the most common response among the women being a member of their family of origin and the most common among the men being a friend. In contrast to studies that have found over a third of LGBT people to be looking after a partner (Fredriksen-Goldsen et al., 2011), we found it

TABLE 3 Comparing care-givers to non-caregivers on mental health

	Mean (SD)		Unadjusted ^a		Adjusted ^b	
	care-givers	Non-caregivers	<i>F</i> (df)	<i>p</i>	<i>F</i> (df)	<i>p</i>
Women						
Psychological distress	15.08 (5.34)	16.69 (7.01)	3.33 (1, 216)	.069	3.55 (1, 181)	.061
Positive mental health	26.72 (4.58)	26.66 (5.22)	0.01 (1, 225)	.930	0.02 (1, 189)	.880
Physical health	3.35 (1.07)	3.22 (1.11)	0.85 (1, 228)	.358	1.04 (1, 192)	.310
Social support	38.47 (8.04)	38.22 (7.74)	0.05 (1, 216)	.822	0.36 (1, 181)	.547
Men						
Psychological distress	16.93 (7.51)	15.40 (6.03)	5.21 (1, 482)	.023	1.87 (1, 432)	.173
Positive mental health	26.64 (5.46)	26.98 (5.02)	0.41 (1, 496)	.523	0.07 (1, 447)	.787
Physical health	3.25 (1.09)	3.44 (1.06)	2.96 (1, 500)	.086	0.51 (1, 450)	.476
Social support	35.50 (8.54)	36.63 (7.79)	1.83 (1, 479)	.177	0.42 (1, 431)	.518

Note: Psychological distress was measured using the K10 Psychological Distress Scale (Kessler et al., 2002), positive mental health was measured using the Short Warwick Edinburgh Mental Well-Being Scale (SWEMWBS) (Fat et al., 2017), physical health was measured using a single-item measure of self-rated general health (Idler & Benyamini, 1997) and social support was measured using the Interpersonal Support Evaluation List (ISEL) (Cohen et al., 1985).

^aNot adjusted for socio-demographic variables.

^bAdjusted for the following socio-demographic variables: age, residential location, education, employment status, income, country of birth and relationship status.

Statistically significant values are highlighted in bold.

TABLE 4 Comparing mental health and carer experiences among those who care for LGBTI individuals to those who do not

	Mean (SD)		Unadjusted ^a		Adjusted ^b	
	LGBTI	Non-LGBTI	F (df)	p	F (df)	p
Women						
Feeling supported in the carer role	3.00 (1.11)	3.40 (1.29)	2.39 (1, 87)	.126	7.19 (1, 62)	.009
Difficulty coping in the carer role	1.70 (1.02)	1.65 (0.93)	0.70 (1, 86)	.792	0.09 (1, 61)	.762
Psychological distress	16.78 (6.16)	13.88 (4.36)	6.60 (1, 85)	.012	1.94 (1, 60)	.169
Positive mental health	24.86 (5.06)	28.04 (3.72)	11.63 (1, 87)	.001	7.09 (1, 62)	.010
Physical health	2.95 (1.04)	3.64 (1.00)	10.31 (1, 89)	.002	4.02 (1, 64)	.049
Social support	36.63 (8.97)	39.73 (7.14)	3.16 (1, 84)	.079	5.73 (1, 60)	.020
Men						
Feeling supported in the carer role	3.04 (1.22)	3.44 (1.13)	3.56 (1, 123)	.062	6.04 (1, 101)	.016
Difficulty coping in the carer role	1.74 (0.98)	1.70 (1.18)	0.04 (1, 124)	.851	0.03 (1, 101)	.855
Psychological distress	16.86 (6.64)	16.99 (8.09)	0.01 (1, 121)	.927	0.26 (1, 98)	.609
Positive mental health	27.06 (4.64)	26.33 (6.00)	0.53 (1, 123)	.466	0.02 (1, 100)	.898
Physical health	3.15 (1.08)	3.32 (1.10)	0.78 (1, 125)	.379	0.16 (1, 102)	.692
Social support	36.27 (8.03)	34.94 (8.89)	0.72 (1, 121)	.397	0.49 (1, 99)	.486

Note: Psychological distress was measured using the K10 Psychological Distress Scale (Kessler et al., 2002), positive mental health was measured using the Short Warwick Edinburgh Mental Well-Being Scale (SWEMWBS) (Fat et al., 2017), physical health was measured using a single-item measure of self-rated general health (Idler & Benyamini, 1997) and social support was measured using the Interpersonal Support Evaluation List (ISEL) (Cohen et al., 1985).

^aNot adjusted for socio-demographic variables.

^bAdjusted for the following socio-demographic variables: age, residential location, education, employment status, income, country of birth and relationship status.

Statistically significant values are highlighted in bold.

was over a fifth of women and almost a fifth of men. These figures illustrate the diversity of care-giving evident in these communities.

We then compared care-givers to non-caregivers on psychological distress, positive mental health, physical health and social support. There were no differences between care-givers and non-caregivers on these variables among the men or women after adjusting for socio-demographic variables. These results are somewhat inconsistent with previous research, which has found that lesbian and gay care-givers experience poorer mental health than non-caregivers (Fredriksen-Goldsen et al., 2011; Hughes, 2017), although not all studies making this comparison have found such differences (Grossman et al., 2007). This may be due to the fact that these previous studies adjusted for fewer (Fredriksen-Goldsen et al., 2011) or no socio-demographic variables (Hughes, 2017). Another possible explanation may simply come down to sampling. Perhaps the care-givers completing this survey, predominantly recruited online, were not those experiencing the most strenuous and demanding care-giving situations. In addition, being a care-giver has been found to come with some benefits, such as personal growth, feeling rewarded by performing acts of altruism and stronger relationships as a result of care-giving (Brotman et al., 2007; Hash, 2006; Muraco & Fredriksen-Goldsen, 2014; Shiu

et al., 2016). It may therefore be possible that this particular sample had more participants for whom potential benefits of being a care-giver offset some of the costs.

However, it was a somewhat different picture when looking at who care-givers were providing care for, specifically with regard to whether care-givers were caring for an LGBTI person versus a non-LGBTI person. We found that just over 40% of participants said that they were caring for someone who is LGBTI. We compared the health and well-being, social support and carer experiences of those who were caring for an LGBTI person to those who were caring for a non-LGBTI person. The women who cared for LGBTI individuals appeared to fare poorer than those who did not. After adjusting for socio-demographic variables, the women who cared for LGBTI individuals scored lower on positive mental health, physical health, social support and specifically feeling supported in the carer role. Among the men, those who cared for LGBTI individuals scored lower on feeling supported compared to those who did not after adjusting for socio-demographic variables. These results suggest that there may be a negative impact of caring for someone who is LGBTI as opposed to someone who is not, and that this impact is potentially greater for lesbian women than for gay men. We know of no other studies that have distinguished

between older lesbians and gay men providing care to either LGBTI or non-LGBTI people.

These results suggest that overall exposure to stigma, as well as issues related to marginalisation, may be greater when both the care-giver and care-receiver are from an LGBTI population. This is in line with Minority Stress Theory (Meyer, 2003), which explains how everyday exposure to stigma and discrimination can impact well-being among lesbian and gay people. It is possible that the stigma and discrimination experienced by care-receivers, which is linked to poorer well-being on their part (Barrett & Crameri, 2015; Fredriksen-Goldsen et al., 2009), also impacts negatively on their care-givers due to the additional support required in such instances. These negative impacts may be even greater when stigma and discrimination target both the care-receiver and care-giver, particularly when they are partners. However, caring for someone who is LGBTI among lesbian women and gay men may also increase the visibility of the care-giver's sexual orientation even if they are not partners, and expose them to stigma and discrimination they may not otherwise experience if they were caring for someone who is not LGBTI.

Furthermore, as stated, the link to poorer well-being was greater for the lesbian women in our study. This is broadly in line with studies of the general population that show that female care-givers experience a greater care-giver burden and poorer health and well-being than male care-givers (Pinquart & Sörensen, 2006; Price, 2010). These gender differences in health and well-being may be partly due to gender differences in the relationships with the person that care-givers were caring for. Research has shown that older lesbian and gay adults caring for friends had lower social support compared to those caring for partners, but also reported fewer care-giving demands and less perceived stress and symptoms of depression (Shiu et al., 2016). Caring for friends can also come with less recognition of the care-giver role (Muraco & Fredriksen-Goldsen, 2011). Furthermore, research has also found that those caring for members of their family of choice were more likely to be providing assistance in household management (Cantor et al., 2004). In our study, men were most likely to be caring for a friend and women were most likely to be caring for a member of family of origin, in line with previous research that found that lesbian women were more likely to be caring for family of origin members than gay men (Shippy, 2007). This may be partly due to lesbian women being assumed to be more available to care for family (Price, 2011), as well as gender role expectations. It is also possible that women are more intensely involved with care-giving tasks than men (Pinquart & Sörensen, 2006), or that the people who women care for have higher needs than those being looked after by men. In addition, we found that lesbian women were more likely to be a carer than gay men, consistent with previous research on midlife and older LGBT adults (Croghan et al., 2014), although not all studies have found such a gender difference among lesbian and gay people (Boehmer et al., 2018; Fredriksen-Goldsen et al., 2011; Grossman et al., 2007; Metlife Mature Market Institute, 2010). It is also possible that gender discrimination may be an additional challenge faced by women caring for other women, and could potentially account for the greater impact of care-giving demands (Barker, 2004).

This study suggests that older lesbian and gay care-givers may face additional challenges if they are caring for someone who is LGBTI, and that support in the carer role can facilitate coping with these challenges. This has important implications for health and social care service providers who have direct contact with care-givers. Support for older lesbian and gay care-givers is important, and ensuring that support services are welcoming and inclusive will be essential for enabling accessibility. This requires having an understanding of the complexities around experiences of sexual orientation discrimination and disclosure of sexual orientation. Previous research has found that lesbian and gay care-givers report concerns that service staff are not trained in sexuality and gender identity issues (Hughes, 2009). LGBTI care-givers may also have additional needs, such as specialised support services that are inclusive, particularly for those who lack support from family and social networks (Cantor et al., 2004; Coon, 2007). Beyond health and service contexts, relevant wider implications include ensuring that LGBTI care-givers are not discriminated against within legislation and public policy (Cantor et al., 2004; Coon, 2007; Fredriksen-Goldsen & Hooyman, 2007; Fredriksen-Goldsen et al., 2009), such as when those caring for a same-sex partner do not have access to family leave benefits or power of attorney privileges. Future research should also more closely examine care networks, which include not just experiences with formal care providers, but also the informal networks that provide support and assistance to care-givers (Hughes & Kentlyn, 2011). While our sample was limited to Australia, it is possible that some of the links we found between caring for someone who is LGBTI and well-being may also be found in other countries where there has been a similar history of marginalisation of LGBTI people. This would need to be investigated in future research, due to the current lack of similar studies elsewhere. Furthermore, while we only examined lesbian and gay care-givers, some of the challenges associated with caring for someone who is LGBTI might still apply to care-givers who are not gay or lesbian.

4.1 | Limitations and future research

There were some limitations in this study. Due to limits on the survey length, we were unable to collect more detailed information around a range of aspects of the participants' care-giving activities. First, while participants indicated the type of person for whom they were providing care, we do not know the specific circumstances related to this. For example, some participants were looking after a member of their family of origin, but we do not know whether this was a child, a parent or other family member. There may be important differences between people looking after a child versus a parent, as well as caring for someone in other circumstances such as living with the person or living separately, and other aspects of the care-giver and care-receiver's living arrangements. It would also have been helpful to know more about the type of care-giving tasks that were being provided, as well as the amount of time spent on care-giving. Nor did we ask participants whether they were the sole, primary, or secondary care-givers,

as those providing higher levels of care are likely to experience a greater impact from care-giving. We also only had a very small number of participants in our sample who were receiving a carer's payment or allowance from the government. It is likely that there are important differences between care-givers who receive a payment and those who do not, with those receiving a payment potentially providing higher levels of care on average. However, many participants may not apply to receive this payment despite providing high levels of care. Such a payment can also provide additional support among individuals who provide high levels of daily care. In future, a more targeted study aimed at examining the complexities of care-giving among older lesbian women and gay men would be valuable for identifying specific needs and challenges related to a caring role. Future research could also examine more specifically whether those who care for other LGBTI people experience more negative effects due to performing care-giving tasks that require greater interactions with health and other services, as well as their relationship to their family of origin, and to the family of origin of the person they provide care for. It will also be important to understand the experience of the LGBTI person receiving care, and how the care dyad interactions influence such carer outcomes.

Another limitation of this study was that the sample may not be representative of older lesbian women and gay men, due to recruitment occurring predominantly online through Facebook advertising, and the possibility that older people are less likely to use this platform. This recruitment strategy may also have resulted in a more highly educated sample, as well as a sample more informed of their rights due to participation in these online social networks. It is also possible that those who were experiencing significant health or care-giving challenges may not have completed the survey. Future research could also benefit from studies among bisexual, transgender and intersex populations, whose caring experiences are similarly likely to be challenging due to stigma-related issues, but each group may also face additional unique challenges and circumstances. The study was also cross-sectional in design, and we therefore cannot infer causality about whether health and well-being are solely outcomes of the care-giving role, or whether the relationship is bi-directional.

4.2 | Conclusions

This study examined the mental health and social support of lesbian and gay care-givers aged 60 and over. We found no differences between care-givers and non-caregivers on psychological distress, positive mental health, physical health or social support. However, we did find that those who were caring for an LGBTI person experienced more adverse outcomes with regard to their health and well-being and feeling supported. This was especially the case among the lesbian women in our sample. These findings provide new insight into the care-giving experiences of older lesbian and gay adults, and in particular reveal important differences faced in well-being between caring for someone who is LGBTI versus non-LGBTI. Care-giving often requires considerable resources and coping skills, and

adequately supporting care-givers is important for preventing the caring role from having adverse effects on their health and well-being, and to ensure that the care they provide is effective. Health and social support services can play a major role in this by ensuring that appropriate and targeted services are accessible and inclusive for older lesbian and gay care-givers and care-receivers to reduce the burden of care and to help make care-giving a more positive experience.

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CONFLICT OF INTEREST

The authors report no conflicts of interest.

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
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REFERENCES

- Adelman, R. D., Tmanova, L. L., Delgado, D., Dion, S., & Lachs, M. S. (2014). Caregiver burden: A clinical review. *Journal of the American Medical Association*, 311, 1052–1060. <https://doi.org/10.1001/jama.2014.304>
- Anderson, J. G., & Flatt, J. D. (2018). Characteristics of LGBT caregivers of older adults: Results from the national Caregiving in the U.S. 2015 survey. *Journal of Gay and Lesbian Social Services*, 30, 103–116. <https://doi.org/10.1080/10538720.2018.1440681>
- Anderson, T. M., Sunderland, M., Andrews, G., Titov, N., Dear, B. F., & Sachdev, P. S. (2013). The 10-Item Kessler psychological distress scale (K10) as a screening instrument in older individuals. *The American Journal of Geriatric Psychiatry*, 21, 596–606. <https://doi.org/10.1016/j.jagp.2013.01.009>
- Aronson, J. (1998). Lesbians giving and receiving care: Stretching conceptualizations of caring and community. *Women's Studies International Forum*, 21, 505–519. [https://doi.org/10.1016/S0277-5395\(98\)00065-X](https://doi.org/10.1016/S0277-5395(98)00065-X)
- Barker, J. C. (2004). Lesbian aging: An agenda for social research. In G. Herdt, & B. D. Vries (Eds.), *Gay and lesbian aging: Research and future directions* (pp. 29–72). New York: Springer.
- Barrett, C., & Crameri, P. (2015). An extra degree of difficulty: An evidence based resource exploring the experiences and needs of older LGBTI carers and the carers of older LGBTI people. Australian Research Centre in Sex, Health and Society, La Trobe University, Melbourne,

- Australia. http://www.opalinstitute.org/uploads/1/5/3/9/15399992/an_extra_degree_of_difficulty.pdf.
- Barrett, C., Whyte, C., Comfort, J., Lyons, A., & Cramer, P. (2015). Social connection, relationships and older lesbian and gay people. *Sexual and Relationship Therapy*, 30, 131–142. <https://doi.org/10.1080/14681994.2014.963983>
- Boehmer, U., Clark, M. A., Heeren, T. C., Showalter, E. A., & Fredman, L. (2018). Differences in caregiving outcomes and experiences by sexual orientation and gender identity. *LGBT Health*, 5, 112–120. <https://doi.org/10.1089/lgbt.2017.0144>
- Brotman, S., Ryan, B., Collins, S., Chamberland, L., Cormier, R., Julien, D., ... Richard, B. (2007). Coming out to care: Caregivers of gay and lesbian seniors in Canada. *The Gerontologist*, 47, 490–503. <https://doi.org/10.1093/geront/47.4.490>
- Cantor, M. H., Brennan, M., & Shippy, R. A. (2004). *Caregiving among older lesbian, gay, bisexual and transgender New Yorkers*. New York: National Gay and Lesbian Task Force Policy Institute. <https://doi.org/10.13140/RG.2.2.29507.30244>
- Chappell, N. L., & Funk, L. M. (2011). Social support, caregiving, and aging. *Canadian Journal on Aging*, 30, 355–370. <https://doi.org/10.1017/S0714980811000316>
- Cohen, S., Mermelstein, R., Kamarck, T., & Hoberman, H. M. (1985). Measuring the functional components of social support. In I. G. Sarason, & B. R. Sarason (Eds.), *Social support: Theory, research and applications* (pp. 73–94). Amsterdam, The Netherlands: Springer. https://doi.org/10.1007/978-94-009-5115-0_5
- Coon, D. W. (2007). Exploring interventions for LGBT caregivers. *Journal of Gay and Lesbian Social Services*, 18, 109–128. https://doi.org/10.1300/J041v18n03_07
- Croghan, C. F., Moone, R. P., & Olson, A. M. (2014). Friends, family, and caregiving among midlife and older lesbian, gay, bisexual, and transgender adults. *Journal of Homosexuality*, 61, 79–102. <https://doi.org/10.1080/00918369.2013.835238>
- DeSalvo, K. B., Bloser, N., Reynolds, K., He, J., & Muntner, P. (2006). Mortality prediction with a single general self-rated health question. *Journal of General Internal Medicine*, 21, 267–275. <https://doi.org/10.1111/j.1525-1497.2005.00291.x>
- Fat, L. N., Scholes, S., Boniface, S., Mindell, J., & Stewart-Brown, S. (2017). Evaluating and establishing national norms for mental wellbeing using the short Warwick-Edinburgh Mental Well-being Scale (SWEMWBS): Findings from the Health Survey for England. *Quality of Life Research*, 26, 1129–1144. <https://doi.org/10.1007/s11136-016-1454-8>
- Faul, F., Erdfelder, E., Lang, A., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39, 175–191. <https://doi.org/10.3758/BF03193146>
- Fredriksen, K. I. (1999). Family caregiving responsibilities among lesbians and gay men. *Social Work*, 44, 142–155. <https://doi.org/10.1093/sw/44.2.142>
- Fredriksen-Goldsen, K. I., & Hooyman, N. R. (2007). Caregiving research, services, and policies in historically marginalized communities. *Journal of Gay and Lesbian Social Services*, 18, 129–145. https://doi.org/10.1300/J041v18n03_08
- Fredriksen-Goldsen, K. I., & Hoy-Ellis, C. P. (2007). Caregiving with pride. *Journal of Gay and Lesbian Social Services*, 18(3–4), 1–13. https://doi.org/10.1300/J041v18n03_01
- Fredriksen-Goldsen, K. I., Kim, H.-J., Emlet, C. A., Muraco, A., Erosheva, E. A., Hoy-Ellis, C. P., ... Petry, H. (2011). *The aging and health report: Disparities and resilience among lesbian, gay, bisexual, and transgender older adults*. Retrieved from Seattle, WA. https://digitalcommons.tacomu.uw.edu/socialwork_pub/117
- Fredriksen-Goldsen, K. I., Kim, H.-J., Muraco, A., & Mincer, S. (2009). Chronically ill midlife and older lesbians, gay men, and bisexuals and their informal caregivers: The impact of the social context. *Sexuality Research and Social Policy*, 6, 52–64. <https://doi.org/10.1525/srsp.2009.6.4.52>
- Fredriksen-Goldsen, K. I., & Muraco, A. (2010). Aging and sexual orientation: A 25-year review of the literature. *Research on Aging*, 32, 372–413. <https://doi.org/10.1177/0164027509360355>
- Grossman, A., D'Augelli, A., & Dragowski, E. (2007). Caregiving and care receiving among older lesbian, gay, and bisexual adults. *Journal of Gay and Lesbian Social Services*, 18(3–4), 15–38. https://doi.org/10.1300/J041v18n03_02
- Hash, K. M. (2001). Preliminary study of caregiving and post-caregiving experiences of older gay men and lesbians. *Journal of Gay and Lesbian Social Services*, 13, 87–94. https://doi.org/10.1300/J041v13n04_10
- Hash, K. M. (2006). Caregiving and post-caregiving experiences of mid-life and older gay men and lesbians. *Journal of Gerontological Social Work*, 47, 121–138. https://doi.org/10.1300/J083v47n03_08
- Hash, K. M., & Mankowski, M. (2017). Caregiving in the LGBT Community. *Annual Review of Gerontology and Geriatrics*, 37, 77. <https://doi.org/10.1891/0198-8794.37.77>
- Hughes, M. (2009). Lesbian and gay people's concerns about ageing and accessing services. *Australian Social Work*, 62, 186–201. <https://doi.org/10.1080/03124070902748878>
- Hughes, M. (2017). Health and well being of lesbian, gay, bisexual, transgender and intersex people aged 50 years and over. *Australian Health Review*, 42, 146–151. <https://doi.org/10.1071/ah16200>
- Hughes, M., & Kentlyn, S. (2011). Older LGBT people's care networks and communities of practice: A brief note. *International Social Work*, 54, 436–444. <https://doi.org/10.1177/0020872810396254>
- Idler, E. L., & Benyamini, Y. (1997). Self-rated health and mortality: A review of twenty-seven community studies. *Journal of Health and Social Behavior*, 38, 21–37. <https://doi.org/10.2307/2955359>
- Jacobs, R. J., Rasmussen, L. A., & Hohman, M. M. (1999). The social support needs of older lesbians, gay men, and bisexuals. *Journal of Gay and Lesbian Social Services*, 9, 1–30. https://doi.org/10.1300/J041v09n01_01
- Kessler, R. C., Andrews, G., Colpe, L. J., Hiripi, E., Mroczek, D. K., Normand, S.-L.-T., ... Zaslavsky, A. M. (2002). Short screening scales to monitor population prevalences and trends in non-specific psychological distress. *Psychological Medicine*, 32, 959–976. <https://doi.org/10.1017/S0033291702006074>
- Kia, H. (2012). "I'm part of this family": How five care-giving partners of gay men story their experiences. *Journal of Gay and Lesbian Social Services*, 24, 140–157. <https://doi.org/10.1080/10538720.2012.669369>
- Lyons, A., Alba, B., & Pepping, C. A. (2017). The impact of social support and mindfulness on the mental health of middle-aged and older gay men: A longitudinal cohort analysis. *Psychology of Sexual Orientation and Gender Diversity*, 4, 472–480. <https://doi.org/10.1037/sgd0000247>
- Lyons, A., Croy, S., Barrett, C., & Whyte, C. (2015). Growing old as a gay man: How life has changed for the gay liberation generation. *Ageing and Society*, 35, 2229–2250. <https://doi.org/10.1017/S0144686X14000889>
- MetLife Mature Market Institute (2010). Out and aging: The MetLife study of lesbian and gay baby boomers. *Journal of GLBT Family Studies*, 6, 40–57. <https://doi.org/10.1080/15504280903472949>
- Meyer, I. H. (2003). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: Conceptual issues and research evidence. *Psychological Bulletin*, 129, 674–697. <https://doi.org/10.1037/0033-2909.129.5.674>
- Moore, W. R. (2002). Lesbian and gay elders: Connecting care providers through a telephone support group. *Journal of Gay and Lesbian Social Services*, 14, 23–41. https://doi.org/10.1300/J041v14n03_02
- Muraco, A., & Fredriksen-Goldsen, K. (2011). "That's what friends do": Informal caregiving for chronically ill midlife and older lesbian, gay,

- and bisexual adults. *Journal of Social and Personal Relationships*, 28, 1073–1092. <https://doi.org/10.1177/0265407511402419>
- Muraco, A., & Fredriksen-Goldsen, K. I. (2014). The highs and lows of caregiving for chronically ill lesbian, gay, and bisexual elders. *Journal of Gerontological Social Work*, 57, 251–272. <https://doi.org/10.1080/01634372.2013.860652>
- Pinquart, M., & Sörensen, S. (2003). Associations of stressors and uplifts of caregiving with caregiver burden and depressive mood: A meta-analysis. *The Journals of Gerontology: Series B*, 58, P112–P128. <https://doi.org/10.1093/geronb/58.2.P112>
- Pinquart, M., & Sörensen, S. (2006). Gender differences in caregiver stressors, social resources, and health: An updated meta-analysis. *The Journals of Gerontology: Series B*, 61, P33–P45. <https://doi.org/10.1093/geronb/61.1.P33>
- Price, E. (2010). Coming out to care: Gay and lesbian carers' experiences of dementia services. *Health and Social Care in the Community*, 18, 160–168. <https://doi.org/10.1111/j.1365-2524.2009.00884.x>
- Price, E. (2011). Caring for mum and dad: Lesbian women negotiating family and navigating care. *The British Journal of Social Work*, 41, 1288–1303. <https://doi.org/10.1093/bjsw/bcr015>
- Shippy, R. A. (2007). We cannot go it alone: The impact of informal support and stressors in older gay, lesbian and bisexual caregivers. *Journal of Gay and Lesbian Social Services*, 18, 39–51. https://doi.org/10.1300/J041v18n03_03
- Shiu, C., Muraco, A., & Fredriksen-Goldsen, K. I. (2016). Invisible care: Friend and partner care among older lesbian, gay, bisexual, and transgender (LGBT) adults. *Journal of the Society for Social Work and Research*, 7, 527–546. <https://doi.org/10.1086/687325>
- Smith, G. R., Williamson, G. M., Miller, L. S., & Schulz, R. (2011). Depression and quality of informal care: A longitudinal investigation of caregiving stressors. *Psychology and Aging*, 26, 584. <https://doi.org/10.1037/a0022263>
- Stewart-Brown, S., Tennant, A., Tennant, R., Platt, S., Parkinson, J., & Weich, S. (2009). Internal construct validity of the Warwick-Edinburgh Mental Well-Being Scale (WEMWBS): A Rasch analysis using data from the Scottish health education population survey. *Health and Quality of Life Outcomes*, 7, 15. <https://doi.org/10.1186/1477-7525-7-15>
- Washington, K. T., McElroy, J., Albright, D., Oliver, D. P., Lewis, A., Meadows, S., & Elliott, S. (2015). Experiences of sexual and gender minorities caring for adults with non-AIDS-related chronic illnesses. *Social Work Research*, 39, 71–81. <https://doi.org/10.1093/swr/svu030>
- Willis, P., Ward, N., & Fish, J. (2011). Searching for LGBT carers: Mapping a research agenda in social work and social care. *The British Journal of Social Work*, 41, 1304–1320. <https://doi.org/10.1093/bjsw/bcr114>

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