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## **Factors Associated with Self-Reported PTSD Diagnosis Among Older Lesbian Women and Gay Men**

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### **Abstract**

Lesbian women and gay men are at greater risk of post-traumatic stress disorder (PTSD) than heterosexual people, however few studies have examined PTSD in older lesbian women and gay men. This study examined predictors of having ever been diagnosed with PTSD, as well as relationships to current quality of life, among 756 lesbian women and gay men aged 60 years and older in Australia. Participants were surveyed on their sociodemographic characteristics, experiences of sexual orientation discrimination over their lifetime, whether they had ever been diagnosed with PTSD, whether they were currently receiving treatment for PTSD, and their current quality of life. After adjusting for sociodemographic variables, participants who reported having a PTSD diagnosis (11.2%) had significantly more frequent experiences of discrimination over their lifetime and were significantly less likely to currently be in a relationship. Older lesbian women were significantly more likely than older gay men to report ever having had a PTSD diagnosis. Additionally, having ever been diagnosed with PTSD significantly predicted current poorer quality of life. These findings suggest that a history of PTSD among older lesbian women and gay men is linked to experiences of discrimination and other factors, with associated links to current quality of life.

*Keywords:* discrimination, gay, lesbian, older adults, PTSD

## Factors Associated with Self-Reported PTSD Diagnosis Among Older Lesbian Women and Gay Men

Lesbian women and gay men often experience discrimination and victimisation due to their sexual orientation, and studies have shown this to be associated with poorer mental health outcomes such as depression and anxiety (Baams, Grossman, & Russell, 2015; Hatzenbuehler, McLaughlin, Keyes, & Hasin, 2010; Lea, de Wit, & Reynolds, 2014; Lyons et al., 2019; Mays & Cochran, 2001). Fewer studies have examined post-traumatic stress disorder (PTSD) in these groups, however, they show that PTSD is also linked to experiences of sexual orientation discrimination (Bandermann & Szymanski, 2014; D'Augelli, Grossman, & Starks, 2006; Dragowski, Halkitis, Grossman, & D'Augelli, 2011; Herek, Gillis, & Cogan, 1999; Mustanski, Andrews, & Puckett, 2016; Robinson & Rubin, 2016; Szymanski & Balsam, 2011). Research from a large representative sample in the US found a greater incidence of PTSD among lesbian women and gay men in comparison to heterosexual people, and that this is largely accounted for by greater exposure to discrimination and victimisation related to sexual orientation (Roberts, Austin, Corliss, Vander Morris, & Koenen, 2010). Indeed, living with PTSD has been shown to be linked to victimisation in a longitudinal study of lesbian, gay, bisexual and transgender (LGBT) young people into emerging adulthood (Mustanski et al., 2016). Minority Stress Theory (Meyer, 2003) explains how the stress resulting from experiences of stigma and discrimination can accumulate over the life course to harm mental health and quality of life. Therefore, the link between experiences of discrimination and PTSD may be of particular significance among older lesbian women and gay men. The following study investigated the factors associated with having ever been diagnosed with PTSD in a sample of older lesbian women and gay men in Australia, including experiences of sexual orientation discrimination.

Older generations grew up during a time of much greater stigma and discrimination towards lesbian women and gay men within mainstream culture as well as in the medical profession, where homosexuality was pathologised (Fredriksen-Goldsen & Muraco, 2010; Lyons, Croy, Barrett, & Whyte, 2015; Yarns, Abrams, Meeks, & Sewell, 2016). In Australia, it was not until 1975 when the first state decriminalised homosexuality, with the last state doing so in 1997. Gay men were also routinely arrested and harassed by police during the 1950s-1970s (Wotherspoon, 1991). Research shows that many older lesbian women and gay men report having experienced discrimination and victimisation, which relates to poorer mental health (D'Augelli & Grossman, 2001; Fredriksen-Goldsen et al., 2013; Fredriksen-Goldsen, Kim, Bryan, Shiu, & Emlet, 2017; Fredriksen-Goldsen, Kim, Shiu, Goldsen, & Emlet, 2015). Growing up in a more hostile climate than today may have put older lesbian women and gay men at increased risk of PTSD. Only one study that we know of has examined PTSD in older lesbian women and gay men (Jessup & Dibble, 2012). However, this study did not examine experiences of discrimination. Therefore, more research is needed on PTSD in older lesbian women and gay men and how this relates to experiences of sexual orientation discrimination, as well as their current quality of life.

Research on older people in general shows that post-traumatic stress is associated with poorer quality of life (Chopra et al., 2014; Lamoureux-Lamarche, Vasiliadis, Prévile, & Berbiche, 2016) and other mental health conditions (Chopra et al., 2014). While several studies suggest that PTSD has a lower prevalence among older people compared to younger people (Cook & Simiola, 2017; Creamer, Burgess, & McFarlane, 2001; Creamer & Parslow, 2008; Kessler et al., 2005; Pietrzak, Goldstein, Southwick, & Grant, 2012b; Pless Kaiser, Cook, Glick, & Moye, 2019; Reynolds, Pietrzak, Mackenzie, Chou, & Sareen, 2016), it tends to be more chronic (Chopra et al., 2014; Pietrzak et al., 2012b), with a relatively long average time to remission in comparison to other mental health conditions (Chapman et al., 2012).

Research on older adults has also found that participants meeting the criteria for a lifetime diagnosis of PTSD had poorer current physical health (Pietrzak, Goldstein, Southwick, & Grant, 2012a), as well as poorer current psychosocial functioning and a greater likelihood of other mental health disorders over the lifetime (Pietrzak et al., 2012b). In addition, factors associated with ageing may exacerbate PTSD symptoms, such as poorer physical health, changes in work and relationship status, and the death of partners, family, and friends (Van Zelst et al., 2003). Therefore, those who were diagnosed with PTSD early in life may continue to have poorer well-being later in life, even if they are no longer being treated for the condition.

Given the lack of research on PTSD in older lesbian women and gay men, we examined factors associated with ever having been diagnosed with PTSD in a sample of lesbian women and gay men in Australia aged 60 years and older. Unlike previous studies on lesbian women and gay men, we measured whether participants had ever been diagnosed with PTSD, rather than current PTSD symptoms (Bandermann & Szymanski, 2014; D'Augelli et al., 2006; Dragowski et al., 2011; Herek et al., 1999; Mustanski et al., 2016; Szymanski & Balsam, 2011). This allowed us to examine not only those who are currently living with PTSD, but also those who have lived with PTSD in the past, since it is likely that in an older sample there are participants with a history of PTSD who are no longer undergoing treatment. We thus examined whether ever having had a PTSD diagnosis was associated with experiences of sexual orientation discrimination over the lifetime. In addition, to help identify potentially vulnerable groups, we explored how a range of current sociodemographic variables are associated with ever being diagnosed with PTSD. Lastly, given that previous research shows that post-traumatic stress symptoms are associated with poorer quality of life, we examined how ever having been diagnosed with PTSD predicted current quality of life. Examining this relationship while controlling for current PTSD

treatment indicated whether a past diagnosis of PTSD was associated with poorer quality of life in the present, regardless of whether a person is currently undergoing treatment for the condition. This is particularly likely to be of value to social workers and other support professionals in understanding how historical factors may relate to current well-being when working with older lesbian women and gay men.

## **Method**

### **Participants**

In total, 895 participants aged 60 years and older completed the survey. This included a small proportion who were transgender women ( $n = 35$ ), transgender men ( $n = 4$ ), or had a gender identity other than male, female, transgender, or did not specify ( $n = 16$ ). In addition, there were 48 bisexual participants and 56 participants who reported a sexual orientation other than lesbian, gay, or bisexual. The small numbers of participants in these groups meant we were unable to include them in the statistical analysis for the present paper, particularly as these groups are likely to have had different life trajectories compared to lesbian women and gay men and should therefore be examined separately. This left a sample of 243 cisgender lesbian women and 513 cisgender gay men aged 60 to 85 years ( $M = 65.94$ ,  $SD = 4.71$ ), of whom 85 (11.2%) reported having ever been diagnosed with PTSD.

### **Materials**

This survey covered a wide range of topics on health and well-being, such as physical and mental health, experiences of discrimination, social well-being, and health and aged care service use. The study reported in this paper utilised the following questions:

***PTSD***

Participants were asked, “Which mental health conditions, if any, have you ever been diagnosed with? (Select as many as apply)”, followed by a checklist of conditions, including PTSD. Participants were then asked: “Which mental health conditions, if any, are you currently receiving treatment for? (Select as many as apply)”, followed by the same checklist as above.

***Lifetime Discrimination***

We asked participants, “Thinking back across your lifetime, to what degree have you been treated unfairly as a direct result of your sexual orientation?”, to which participants responded on a scale ranging from 1 (Very often) to 5 (Not at all). This was reverse-coded so that higher scores indicated more frequent experiences of discrimination.

***Quality of Life***

We asked, “How do you rate your overall quality of life”, to which participants responded on a scale ranging from 1 (Very good) to 5 (Very poor). This was reverse-coded so that higher scores reflected higher quality of life.

***Sociodemographic Variables***

Participants were asked “How do you describe your sexuality?” followed by a list of common identity labels, such as gay, lesbian, bisexual, and an option of “other” where they could indicate or describe a different identity. They were also asked “How do you describe your gender?” again followed by a list of common identity labels, such as male, female, trans woman, trans man, and an option of “other” to indicate or describe a different identity. Additional sociodemographic questions age (coded as 60-64 years; 65-69 years; 70 years and older), residential location (coded as urban; regional/rural), highest educational qualification

(coded as non-university educated; university educated), employment status (coded as retired; working; other), pre-tax income (coded as \$0-\$49,999; \$50,000-\$99,999; \$100,000 plus), country of birth (coded as Australia; overseas), and relationship status (coded as not in a relationship; in a relationship).

## **Procedure**

We conducted a cross-sectional survey between August and December 2017. The survey was hosted online, with paper copies also made available. Participants were eligible to participate if they were aged 60 years or older, living in Australia, and identified as being lesbian, gay, bisexual, transgender, or intersex (LGBTI). We used paid Facebook advertising and advertising through the newsletters and email lists of ageing and aged care community organizations. The survey was also promoted at various LGBTI seniors' events in Victoria, Australia, including an LGBTI aged care conference that was attended by older lesbian women and gay men. Advertisements included links to the online survey and instructions for requesting a paper version. An information statement at the beginning of the survey explained the purpose of the research and anonymity of responses, after which participants indicated their consent to participate. Ethical approval was obtained from the La Trobe University Human Ethics Committee (project number S17-088).

## **Statistical Analysis**

We compared those who reported having ever been diagnosed with PTSD with the rest of the sample using univariable logistic regressions for each of the sociodemographic variables and the main predictor variable, lifetime discrimination. Any variables associated with a PTSD diagnosis at  $p < .25$  were then included in the multivariable logistic regression, which is a common threshold for inclusion of variables in a multivariable regression. We then used linear regressions to test whether ever being diagnosed with PTSD predicted current

quality of life, first without adjusting for sociodemographic variables and then with adjustment. For both of these latter analyses, we adjusted for current treatment of PTSD to focus on links between a history of PTSD and current quality of life, not confounded by the potential impact of current PTSD on quality of life. Given that the number of participants who had ever been diagnosed with PTSD was small, we analysed the data for lesbian women and gay men together and controlled for gender. Participants with missing data on a variable in a specific analysis were excluded from that analysis. Stata Version 14.1 (StataCorp, College Station, TX) was used to compute all analyses.

## **Results**

### **Sample Profile**

As outlined earlier, 895 participants completed the survey, of whom 243 were cisgender lesbian women and 513 were cisgender gay men. Of this group of cisgender lesbian women and cisgender gay men, 85 participants (11.2%) reported having ever been diagnosed with PTSD, of whom 33 (38.8%) were currently receiving treatment. Table 1 displays sociodemographic characteristics of the sample. About one-fifth were aged 70 years and older. Over half lived in an urban area, and approximately half had a university education. More than half were retired and less than a fifth had an annual income of AU\$100K or more. Almost three-quarters were born in Australia and over half were in a relationship.

### **Factors Associated with Ever Being Diagnosed with PTSD**

Table 2 displays the results on factors associated with having ever been diagnosed with PTSD. In the univariable analysis, those who had ever been diagnosed with PTSD were more likely to be lesbian women ( $p < .001$ ). They were also significantly more likely than those who had never been diagnosed with PTSD to be currently living in regional or rural

areas than in an urban area ( $p = .001$ ) and categorised as “other” for their employment ( $p < .001$ ). The “other” employment category included people who were unemployed, students, or who selected the ‘other’ option in the survey. In addition, those who had ever been diagnosed with PTSD were significantly less likely to have an income of \$100,000 or more compared to an income of AU\$0-\$49,999 ( $p = .010$ ), less likely to be in a relationship ( $p = .003$ ), and more likely to report experiences of sexual orientation discrimination over their lifetime ( $p < .001$ ). In the multivariable analysis, gender ( $p < .001$ ), relationship status ( $p = .001$ ), and lifetime sexual orientation discrimination ( $p < .001$ ) remained significant predictors of ever having been diagnosed with PTSD.

### **PTSD and Quality of Life**

We examined whether having ever been diagnosed with PTSD predicted current quality of life, while controlling for current treatment for PTSD. Having ever been diagnosed with PTSD predicted lower quality of life both prior to adjusting for sociodemographic variables,  $F(1, 753) = 11.98, p < .001$ , and following adjustment,  $F(1, 685) = 7.83, p = .005$ .

## **Discussion**

This study investigated factors associated with ever having had a PTSD diagnosis in a sample of lesbian women and gay men aged 60 years and older living in Australia. Experiences of lifetime sexual orientation discrimination were associated with having ever been diagnosed with PTSD after controlling for sociodemographic variables. These findings are in line with previous research on younger samples that found that experiences of sexual orientation discrimination are associated with PTSD symptoms (Bandermann & Szymanski, 2014; D'Augelli et al., 2006; Dragowski et al., 2011; Herek et al., 1999; Mustanski et al., 2016; Robinson & Rubin, 2016; Szymanski & Balsam, 2011).

Our results also showed that older lesbian women were more likely to have ever been diagnosed with PTSD than older gay men. This is consistent with studies finding PTSD to be more common among women in gay and lesbian samples, including younger people (D'Augelli et al., 2006; Mustanski et al., 2016) and general population samples (Christiansen & Hansen, 2015; Olff, 2017). Calls have been made for further research to understand these gender differences (Olff, 2017). For lesbian and gay populations, specific factors may need to be explored, such as sociocultural environments. For example, it may be that lesbian women are more likely to have experienced discrimination and associated trauma related to both their sexual orientation and gender. The types of experiences such as sexual trauma, the severity of experiences, community responses, and the types of support available may also be factors that need to be investigated. In addition, those in our sample who were not currently in a relationship were more likely to have ever been diagnosed with PTSD. Previous studies have similarly found that not having a partner was associated with PTSD symptoms (Creamer et al., 2001; Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995; Kun, Tong, Liu, Pei, & Luo, 2013). Given that in our study PTSD diagnosis was measured using a historical timeframe and we measured current relationship status, it suggests that having a history of PTSD may potentially impact the likelihood of lesbian women and gay men being in a relationship in older age. This may be due to the experience of PTSD resulting in reduced life opportunities, such as barriers to developing social networks that might have enabled relationships. This may be particularly true of traumas involving victimisation, such as homophobic violence, and future research is needed to investigate this in more depth.

Finally, we found that those who had ever been diagnosed with PTSD were more likely to report poorer current quality of life after adjusting for sociodemographic variables and current treatment for PTSD. This finding is consistent with previous research that has found that post-traumatic stress is associated with lower quality of life (Chopra et al., 2014;

Lamoureux-Lamarche et al., 2016). However, our study extends on previous research to suggest that even those who had been living with PTSD in the past are still more likely to have poorer quality of life during older age, regardless of whether they are still undergoing treatment for PTSD.

Our findings provide a novel contribution to the literature in that we examined how experiences of sexual orientation discrimination over the lifetime are related to having ever been diagnosed with PTSD in a sample of older lesbian women and gay men. Given that we only examined whether participants had ever been diagnosed with PTSD and whether they were currently receiving treatment rather than current PTSD symptoms, this study serves as a starting point for research on PTSD in older lesbian women and gay men. In addition, these findings may be useful to social workers, health professionals, and service providers, who may benefit from a greater awareness of factors associated with a history of PTSD among older lesbian women and gay men. Those who report more frequent experiences of sexual orientation discrimination and those without a partner may be more likely to have also had a history of PTSD, and thus may require alternative sources of social support. As in mainstream populations, older lesbian women may also be more likely to report a history of PTSD than older gay men.

There were some limitations. The cross-sectional design precluded us from making inferences about causality. This study cannot show whether experiences of discrimination were a precursor to PTSD, or that PTSD was a precursor to current poorer quality of life or relationship status. Our study is further limited by the fact that we did not ask participants how long ago they were diagnosed with PTSD or the age of onset of symptoms, which may have allowed us to consider possible differences between those diagnosed early in life compared to those diagnosed more recently. We also did not measure whether participants still experienced PTSD symptoms, nor differentiated between participants who had chronic

PTSD or not. Given that almost 40% of participants who reported a history of PTSD were currently receiving treatment, it is possible that some participants may have been diagnosed and treated some time ago or had remitted. However, it is possible that some participants still experienced symptoms of PTSD but were not undergoing treatment. In addition, participants self-reported on whether they had ever been diagnosed with PTSD. It is therefore possible that some of these self-reports were incorrect or involved a self-diagnosis. Thus, we cannot confirm whether all instances reported in this study involved a formal diagnosis of PTSD. Furthermore, some participants may have had undiagnosed PTSD, where they indicated not ever receiving a diagnosis but may in fact have a history of living with PTSD. Given the known impact of trauma in the lives of lesbian women and gay men (House et al., 2011), and the barriers to accessing health care due to a fear of stigma and discrimination (Alba et al., 2020), it is possible some undiagnosed cases may have been present in the sample.

Furthermore, we did not investigate the nature of the traumatic event that formed the basis of their PTSD diagnosis. It is possible that for some participants this trauma was related to an experience of victimisation due to their sexual orientation and accounts for the link between these variables. However, it is also possible that the additional stressors of experiences of sexual orientation discrimination and victimisation made the development of PTSD more likely when unrelated traumatic events occurred. Researchers have argued that experiences of sexual orientation discrimination alone may be a sufficiently traumatic event to trigger PTSD (Bandermann & Szymanski, 2014; Robinson & Rubin, 2016; Szymanski & Balsam, 2011), and some participants may have had complex PTSD due to multiple and prolonged experiences of victimisation. Future research could also examine this in more detail among older lesbian women and gay men, as well as other minority stress factors that relate to PTSD, such as sexual orientation acceptance concerns (Stenersen et al., 2019) and internalised homophobia (Gold, Feinstein, Skidmore, & Marx, 2011). Studies could also

examine the relationship with potentially protective factors such as resilience and community connectedness. Future research should further aim to recruit larger numbers of older bisexual, transgender, intersex, or other sexual and gender diverse participants, and examine how experiences of discrimination relate to PTSD in these groups.

Our study found that more frequent experiences of sexual orientation discrimination over the lifetime were associated with having ever been diagnosed with PTSD among older lesbian women and gay men. We also found that lesbian women and those not currently in a relationship were more likely to have ever been diagnosed with PTSD. Having ever been diagnosed with PTSD also predicted current poorer quality of life. These findings support a link between sexual orientation discrimination and PTSD, and are useful for those seeking to understand mental health challenges associated with sexual orientation discrimination. The findings are further useful to social workers and other support professionals working with older lesbian women and gay men, since it highlights some of the additional risk factors that may be associated with PTSD and current quality of life among their older lesbian women and gay men clients.

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Table 1

*Sociodemographic characteristics of the sample of lesbian women and gay men aged 60 years and older (N = 756)*

	No.	%
<b>Gender</b>		
Male	513	67.9
Female	243	32.1
<b>Age group</b>		
60-64 years	328	43.4
65-69 years	270	35.7
70 years and older	158	20.9
<b>Residential location</b>		
Urban	449	59.5
Regional/rural	305	40.5
<b>Education</b>		
Non-university educated	371	49.1
University educated	385	50.9
<b>Employment status</b>		
Retired	423	56.1
Working	253	33.6
Other	78	10.3
<b>Income</b>		
\$0-\$49,999	389	53.1
\$50,000-99,999	209	28.5
\$100,000 and above	135	18.4
<b>Country of birth</b>		
Australia	542	73.2

Overseas	198	26.8
Relationship status		
No relationship	330	44.8
Relationship	407	55.2

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

Table 2

*Variables predicting ever being diagnosed with post-traumatic stress disorder among lesbian women and gay men aged 60 years and older*

	Ever diagnosed with		Univariable		Multivariable <sup>2</sup>	
	PTSD <sup>1</sup>					
	Yes	No				
	No. (%)	No. (%)	OR (95% CI)	<i>p</i>	OR (95% CI)	<i>p</i>
Gender				<.001		<.001
Male	39 (7.6)	474 (92.4)	-		-	
Female	46 (18.9)	197 (81.1)	2.84 (1.80-4.49)		3.66 (2.10-6.37)	
Age group				.238		.359
60-64 years	42 (12.8)	286 (87.2)	-		-	
65-69 years	31 (11.5)	239 (88.5)	0.88 (0.54-1.45)		0.89 (0.48-1.64)	
70 years and older	12 (7.6)	146 (92.4)	0.56 (0.29-1.10)		0.54 (0.23-1.26)	
Residential location				.001		.058
Urban	36 (8.0)	413 (92.0)	-		-	
Regional/rural	49 (16.1)	256 (83.9)	2.20 (1.39-3.47)		1.67 (0.98-2.83)	
Education				.449		-
Non-university educated	45 (12.1)	326 (87.9)	-			
University educated	40 (10.4)	345 (89.6)	0.84 (0.53-1.32)			
Employment				<.001		.145
Retired	46 (10.9)	377 (89.1)	-		-	
Working	19 (7.5)	234 (92.5)	0.67 (0.38-1.16)		0.80 (0.40-1.59)	
Other	20 (25.6)	58 (74.4)	2.83 (1.56-5.12)		1.81 (0.84-3.90)	
Income				.010		.579
\$0-\$49,999	56 (14.4)	333 (85.6)	-		-	
\$50,000-\$99,999	19 (9.1)	190 (90.9)	0.59 (0.34-1.03)		0.82 (0.42-1.62)	
\$100,000 and above	7 (5.2)	128 (94.8)	0.33 (0.14-0.73)		0.62 (0.25-1.56)	

Country of birth				.119		.163
Australia	66 (12.2)	476 (87.8)	-		-	
Overseas	16 (8.1)	182 (91.9)	0.63 (0.36-1.12)		0.63 (0.33-1.21)	
Relationship status				.003		.001
Not in a relationship	48 (14.5)	282 (85.5)	-		-	
In a relationship	31 (7.6)	376 (92.4)	0.48 (0.30-0.78)		0.37 (0.21-0.68)	
	<i>M (SD)</i>	<i>M (SD)</i>				
Lifetime discrimination	3.34 (1.12)	2.64 (1.06)	1.77 (1.44-2.19)	<.001	1.68 (1.33-2.13)	<.001

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

<sup>1</sup> Post-traumatic stress disorder.

<sup>2</sup> Only those variables that were associated with PTSD diagnosis at  $p < .25$  in the univariable analyses were entered into the multivariable analysis.