

COPYRIGHT NOTICE



FedUni ResearchOnline
<http://researchonline.federation.edu.au>

This is an Accepted Manuscript of an article published by Taylor & Francis in
Journal of Homosexuality on 13/12/2014, available online:

<http://www.tandfonline.com/10.1080/00918369.2014.983376>

Gender, Age, and Place of Residence as Moderators of the Internalized Homophobia-
Depressive Symptoms Relation Among Australian Gay Men and Lesbians.

Suzanne McLaren

University of Ballarat

Correspondence:

Suzanne McLaren, PhD

Psychology

School of Health Sciences

University of Ballarat

PO Box 663

Ballarat VIC 3353

Australia

Telephone: +61 3 5327 9628

Fax: +61 3 5327 9240

E-mail: s.mclaren@ballarat.edu.au

Abstract

Internalized homophobia is a risk factor for depression among gay men and lesbians. The aim of the study was to test whether the internalized homophobia-depression relation was moderated by gender (stronger among gay men compared with lesbians), age (stronger among younger compared with older gay men and lesbians), and place of residence (stronger among gay men and lesbians who live in rural areas compared with those who live in urban areas). An Australian sample of 311 self-identified gay men and 570 self-identified lesbians, aged 18 to 70 years, completed the Internalized Homophobia Scale and the Centre for Epidemiological Studies Depression Scale. Results indicated that age and gender did not moderate the internalized homophobia-depressive symptoms relation. Place of residence was a significant moderator for gay men, but not lesbians. In contrast to the hypothesis, the internalized homophobia-depression relation was significant only among gay men who resided in urban areas. Those who work with gay men should be particularly aware of the significant relationship between internalized homophobia and depressive symptoms among gay men who reside in urban areas.

Gender, Age, and Place of Residence as Moderators of the Internalized Homophobia-Depressive Symptoms Relation Among Australian Gay Men and Lesbians.

Depression is a significant mental health issue for self-identified gay men and lesbians. Research has generally found that gay men and lesbians are more likely to experience depression than heterosexual men and women. For example, an Australian study comparing gay, lesbian, bisexual and heterosexual adults, in a random community sample, found that when controlling for age and gender, gay men, lesbians and bisexuals had significantly higher levels of depression than heterosexuals (Jorm, Korten, Rogers, Jacomb, & Christensen, 2002). Gay, lesbian and bisexual adults (Westefeld, Maples, Buford, & Taylor, 2001) and students (Biernbaum & Ruscio, 2004; Lindsey, Fabiano, & Stark, 2009) in the US were more likely to be depressed than their heterosexual peers. A meta-analysis of various prevalence studies provided evidence that lesbian, gay and bisexual adults were at least twice as likely to experience depression in a 12-month period as heterosexual adults (King et al., 2008).

Internalized homophobia has been identified as a key risk factor for depression among lesbians and gay men (Igartua, Gill, & Montoro 2003; Szymanski, Chung, & Balsam, 2001). Internalized homophobia has been defined as “a set of negative attitudes and affects toward homosexuality in other persons and toward homosexual features in oneself” (Shidlo, 1994, p. 178). The construct includes negative global attitudes towards homosexuality, discomfort with disclosure of sexual orientation to others, disconnectedness from other gay individuals, and discomfort with same-sex sexual activity (Meyer & Dean, 1998). It is argued that internalized homophobia is experienced to varying degrees by almost all gay men and lesbians raised in a homophobic society (Gonsiorek, 1988; Sophie, 1988). For example, a study of gay men indicated that 85% of the sample experienced some degree of internalized homophobia (Cody & Welch, 1997).

Internalized homophobia has been linked to depression among gay men and lesbians in a number of studies (e.g., Frost & Meyer, 2009; Goldberg & Smith, 2011; Igartua et al., 2003; Szymanski et al., 2001; see Newcomb & Mustanski, 2010, for a review). Whereas most researchers have used a total internalized homophobia score, Igartua et al. investigated the relationship between three dimensions of internalized homophobia and depression. Results indicated that attitudes towards one's own sexual orientation ($r = -.51$), attitudes towards other gay men and lesbians ($r = -.38$), and attitudes towards self-disclosure of one's sexual orientation ($r = -.31$) were each related to depression. The results of a hierarchical regression, where age and gender were entered at Step 1, alcohol and drug abuse were entered at Step 2, and the three dimensions of internalized homophobia were entered at Step 3, showed only one of the three internalized homophobia variables (attitudes towards one's own sexual orientation) significantly predicted depression. Overall, internalized homophobia accounted for 18% of the variance in depression scores.

The link between internalized homophobia and depression has been well established. Whether the strength of this relationship varies according to certain demographic variables, however, is debated. Two variables, gender and age, have received some attention in the literature. A third variable, place of residence, is likely to be an influencing factor, but has yet to be examined in the context of a moderation model.

Gender

It has been proposed that the relationship between internalized homophobia and depression is stronger among gay men than lesbians (Newcomb & Mustanski, 2010). This proposition is based on research that indicates that gay men experience more acts of external homophobia (e.g., verbal and physical abuse, victimization) than lesbians (Balsam, Rothblum, & Beauchaine, 2005; D'Augelli, Pilkington, & Hershberger, 2002). Based on this research, Newcomb and Mustanski argued that gay men are more likely to internalize society's negative attitudes, and consequently, be more likely to experience negative mental

health outcomes. To test this proposition, they conducted a meta analysis using 31 sets of data. The results indicated no significant difference in the average association between internalized homophobia and internalizing mental health problems for men and women. It was concluded that gender did not moderate the internalized homophobia-internalizing mental health problems relation. Newcomb and Mustanski proposed that although gay men appear to experience more externalized homophobia than lesbians, this experience may not translate to higher levels of internalized homophobia (and by association, higher levels of depression). It is also possible that experiencing *any* level of homophobia may be enough to prompt internalized homophobia, and therefore gender is not relevant in the relation between internalized homophobia and internalizing mental health problems.

A possible limitation of the meta analysis was the measurement of the outcome variable “internalizing mental health problems”. Newcomb and Mustanski (2010) used the terms “mental health” and “psychological distress” in their search of the literature, and the inclusion criterion was that the outcome variable “needed to be either dimensional measures of overall internalizing mental health problems”, such as the Brief Symptoms Inventory, or “an independent dimensional measure of depression and/or anxiety based on symptomatology”, such as the Beck Depression Inventory. It is unknown whether a moderation model would have been supported if the outcome variable was more narrowly defined, such as depression. To overcome this potential limitation, it would be necessary to use a measure of depression.

It appears that no study has examined whether gender moderates the internalized homophobia-depression relation. Evidence to support the proposition, however, can be derived from research that has used similar constructs. For example, Luhtanen (2003) reported significant correlations between family’s acceptance and depression, and heterosexual friends’ acceptance and depression among gay men, but not lesbians. In

addition, positive identity significantly predicted depression for both gay men ($\beta = -.36, p = .03$) and lesbians ($\beta = -.26, p = .001$), with the relationship being stronger for gay men. These results suggest that gender moderates the relationship. A limitation is that Luhtanen did not directly measure internalized homophobia, but as higher levels of acceptance by family and friends and more positive gay/lesbian identity are likely to be associated with lower levels of internalized homophobia, these variables might be considered indirect measures of internalized homophobia. There is a clear need to directly assess internalized homophobia when testing a moderation model.

In contrast, Lewis, Derlega, Griffin, and Krowinski (2003) reported that the correlations between internalized homophobia and depression were “very similar” for their sample of gay men and lesbians, and therefore only reported the correlation for the sample ($r = .14, p < .05$). This suggests that gender does not moderate the internalized homophobia-depression relation.

In summary, there is strong argument, but mixed evidence, to support the proposition that gender would moderate the relation between internalized homophobia and depression, with the relationship being stronger for gay men than lesbians. No one has yet directly tested this proposition.

Age

It has been proposed that the internalized homophobia-depression relation should be stronger among younger compared with older gay men and lesbians (Newcomb & Mustanski, 2010). Researchers have indicated that depression is associated with younger age (Carlson & Steuer, 1985; McNair, Kavanagh, Agius, & Tong, 2005). Specifically, lesbians aged 22 to 27 years of age were more likely to have been diagnosed by a doctor for depression in the preceding four years than older (aged 50-55 years) lesbians (McNair et al., 2005). Similarly, suicide attempts among gay men (Cochran & Mays, 2000) and lesbians (Matthews, Hughes,

Johnson, Razzano, & Cassidy, 2002) are highest among those under 30 years of age.

Matthews et al. proposed that younger gay men and lesbians are most at risk of depression and suicide due to the developmental tasks of questioning and developing sexual identity, and the subsequent *coming out* process. Key theorists such as Cass (1984) and Troiden (1989) propose that internalized homophobia is strongest when one is coming out, and decreases over time as one develops a gay or lesbian identity. It is evident, therefore that mental health issues, including depression, and internalized homophobia are both prominent issues among younger gay men and lesbians, suggesting age moderates the internalized homophobia-depression relation.

Only one study has tested this moderation model. In their meta analysis, Newcomb and Mustanski (2010) found support for a moderation model, indicating that the strength of the internalized homophobia-mental health relation increased as age of the participants increased. This result is in contrast to the original proposition. Newcomb and Mustanski suggest that the limited age groups in the analyses may have influenced the results. Specifically, they noted that few studies had youth samples, or samples over the age of 40 years. The other key limitation of this study, namely the measurement of the outcome variable, has been previously discussed. The authors specifically called for further research to test this moderation model.

Place of Residence

It appears that no previous research has examined place of residence as a moderator of the internalized homophobia-depression relation among gay men and lesbians. It is proposed here that living in a rural setting will strengthen the internalized homophobia-depression relation.

Life as a gay man or lesbian in a rural area can be difficult. Research in the US (D'Augelli & Hart, 1987; Kramer, 1995) and Australia (Gottschalk & Newton, 2003) has documented gay men and lesbians leaving the rural areas in which they were born and raised,

to go to larger cities which are seen to provide greater opportunities to immerse oneself in the gay/lesbian culture. Lack of visibility of the gay/lesbian community and limited opportunities to meet other gay men and lesbians have been cited as limitations of the rural lifestyle (Cody & Welch, 1997). As a consequence, isolation and loneliness are key negative outcomes from living in rural areas for many gay men and lesbians (Cody & Welch, 1997; Gottschalk & Newton, 2009). Relocation to urban centres may also provide the gay or lesbian individual with the support needed to facilitate a positive identity development (D'Augelli & Hart, 1987).

Homophobia was a key reason for leaving rural areas (Gottschalk & Newton, 2003). Rurality has been correlated with homophobia in the US (Snively, Kreuger, Stretch, Watt, & Chandha, 2004). Specifically, rural respondents were more likely to oppose equal rights to gay men, lesbians, and bisexuals compared with urban residents (Snively et al., 2004). Hopwood and Connors (2002) note that heterosexual masculinity is regarded as a key characteristic of being male in rural Australia. Rural Australians define masculinity more rigidly and are less tolerant of diversity than urban Australians (Gottschalk & Newton, 2009). Homophobia is seen as a way of Australian men "policing the boundaries" of masculinity (McCann, Minichiello, & Plummer, 2009, p. 217). Since rural residents are more likely to uphold traditional values, especially around masculinity, it is not surprising that they are more homophobic. It is proposed here that gay men and lesbians living in areas where homophobia is more pronounced would be more likely to experience internalized homophobia and, as a result, depression. This proposition has yet to be tested.

The aim of this study was to investigate whether the strength of the internalized homophobia-depression relation was influenced by gender, age, and place of residence. It was hypothesised that the internalized homophobia-depression relation would be stronger for men, younger gay men and lesbians, and gay men and lesbians who lived in rural areas.

Method

Participants

The sample for this study consisted of 311 Australian men, aged between 18 and 70 years ($M = 35.37$, $SD = 12.56$), who self-identified as gay, and 570 Australian women, aged between 18 and 68 years ($M = 32.25$, $SD = 11.61$) who identified as lesbian. The details of the sample can be seen in Table 1. The majority of the sample were partnered, had completed secondary school or a trade certificate, were employed full time, and lived in urban areas. Participants were recruited at gay and lesbian community events from each state and territory of Australia, though the large majority were from Victoria or Queensland.

Urban and rural locations were determined by the Rural, Remote and Metropolitan Areas Classification (RRMA; see Australian Institute of Health and Welfare, 2004). The RRMA's index of remoteness is based on distance to service centres as well as a measure of distance from other people. The RRMA classification consists of three zones, namely Metropolitan, Rural and Remote, and seven classes. Participants in this study were labelled as "urban" if they resided in either of the two metropolitan classes (capital cities or other metropolitan centres with a population of $> 100,000$) and "rural" if they resided in the rural or remote zones (population $< 100,000$).

Materials

An introductory letter outlined the purpose of the study and the requirements of participation in this study. This statement also contained contact numbers of the researcher and a gay and lesbian telephone counseling service for participants who felt the need to initiate contact as the result of their participation in this study.

A series of questions elicited demographic information from the participants, including gender, sexual identity, age, residential postcode, relationship status, highest

education level successfully completed, current employment status and income per annum. Sexual identity was assessed by asking participants: *What do you consider your sexuality to be?* Participants responded to this item by selecting one of *Gay Male, Lesbian, Bisexual, Don't know, Heterosexual* or *Other*. Participants were included if they selected *Gay Male* or *Lesbian*.

The level of depressive symptoms experienced in the past week was measured using the Center for Epidemiological Studies–Depressive Scale (Radloff, 1977). This questionnaire contains 20 items (e.g., *I thought my life had been a failure*). Participants indicate the proportion of time that they experienced each item by using a 4-point scale, from 0 = *Rarely or None of the time (less than 1 day)* to 3 = *Most or All of the time (5-7 days)*. Higher scores indicate higher levels of depressive symptoms (Radloff, 1977). Strong internal consistency has been shown for a range of populations ($\alpha = .83-.92$; Carpenter et al., 1998), including gay men and lesbians ($\alpha = .93$ and $.94$, respectively, McLaren, Gibbs, & Watts, 2013). The current study displayed a high level of internal consistency, with an alpha of $.91$ for men and $.92$ for women.

The 20-item Internalized Homophobia Scale (Wagner, 1998) measures how much an individual's self-image and identity have been influenced by the internalisation of anti-gay attitudes and beliefs (e.g., *I wish I were heterosexual*). Participants indicate how much they agree with an item by using a 5 point scale, from 1 = *strongly disagree* to 5 = *strongly agree*. Higher scores on this scale indicate higher levels of internalized homophobia (Wagner, 1998). Scores on this scale correlate with demoralisation ($r = .49$), global psychological distress ($r = .37$) and depression ($r = .36$; Wagner, Serafini, Rabkin, Remien, & Williams, 1994). High internal consistency has been demonstrated ($\alpha = .92$, Wagner et al., 1994). Similar results were found for this sample ($\alpha = .92$ for men, and $.90$ for women).

Procedure

Ethics approval was sought and gained from the University of Ballarat Human Research Ethics Committee. The researcher attended gay and lesbian festivals and social events with the permission of the organisers. Questionnaires were distributed for this study from a table that had signs advertising both the study and the university. An incentive that consisted of a bag of lollies was provided to each participant who completed a questionnaire at these festivals and most questionnaires were completed returned to the researcher at that time. In some cases, participants took uncompleted questionnaires home with them and returned the completed questionnaires via post. One thousand questionnaires were distributed with 881 being returned, a return rate of 88.10%. The order of the measures was counterbalanced to minimise order effects.

Data Analyses

Means and standard deviations of the key variables, and correlations between the key variables, were calculated. Hierarchical regression analyses were used to test the moderation models. To support the moderation effect, a significant change in R^2 is needed when the interaction term is entered. To minimise the problem of multicollinearity, the interaction terms were calculated using centred scores (Cohen & Cohen, 1983).

Results

Gender as a Moderator

Descriptive statistics for men and women can be seen in Table 2. Results of the correlations indicated that higher levels of internalized homophobia were associated with higher levels of depression ($r = .33, p < .001$). Gender did not correlate with internalized homophobia ($r = -.09, p > .05$) or depression ($r = .03, p > .05$).

Results from the regression analysis can be seen in Table 3. At Step 1, gender and internalized homophobia explained 11% of the variance in depression. The addition of the

interaction term at Step 2 failed to explain any additional variance in depression, indicating that gender did not moderate the internalized homophobia-depression relation.

Results for Women

Descriptive statistics and correlations between variables can be seen in Table 2 (below the diagonal). Higher levels of internalized homophobia and increasing age were associated with higher levels of depression. Place of residence was not associated with internalized homophobia, age, or depression.

Age as a moderator. Results from the regression analysis are shown in Table 4. Age and internalized homophobia explained 15% of the variance in depression at Step 1. The addition of the interaction term at Step 2 failed to explain additional variance in depression, therefore age did not moderate the internalized homophobia-depression relation.

Place of residence as a moderator. From Table 4 it can be seen place of residence and internalized homophobia explained 11% of the variance in depression at Step 1. The interaction term explained an additional 3% of variance in depression. The change in R^2 was not significant, indicating that place of residence did not influence the strength of the relationship between internalized homophobia and depression.

Results for Men

Descriptive statistics and correlations between variables can be seen in Table 2 (above the diagonal). Higher levels of internalized homophobia and increasing age were associated with higher levels of depression. Place of residence as not associated with internalized homophobia, age, or depression.

Age as a moderator. Results from the regression analysis can be seen in Table 5. At Step 1, age and internalized homophobia explained 11% of the variance in depression. The interaction term failed to explain additional variance in depression at Step 2, therefore age did not moderate the internalized homophobia depression relation.

Place of residence as a moderator. From Table 5 it can be seen that place of residence and internalized homophobia explained 11% of variance in depression. The addition of the interaction term at Step 2 explained an additional 4% of variance in depression. The change in R^2 was significant, indicating that place of residence influenced the strength of the relationship between internalized homophobia and depression. Figure 1 shows the internalized homophobia x place of residence interaction. The beta value for urban living was significant, $b = 0.40$, $t(307) = 7.28$, $p < .001$, $R^2 = .24$, Cohen's $f^2 = .32$, whereas the beta value for rural living was not significant, $b = 0.07$, $t(307) = 1.14$, $p > .05$, $R^2 = .01$, Cohen's $f^2 = .01$. These results indicate that higher levels of internalized homophobia were associated with higher levels of depressive symptoms only for gay men who live in urban areas.

Discussion

The aim of the study was to directly test whether gender, age, and place of residence moderated the internalized homophobia-depression relation among a sample of self-identified gay men and lesbians. Results did not support the hypotheses that the internalized homophobia-depression relation would be stronger for gay men than lesbians and for younger adults than older adults. The moderation model was supported for place of residence for gay men but not for lesbians. Closer inspection of the results indicated that, contrary to expectations, the internalized homophobia-depression relation was stronger for gay men who lived in urban areas. Indeed, the internalized homophobia-depression relation was not significant for gay men who lived in rural areas.

The result pertaining to gender is consistent with two previous studies (Lewis et al., 2003; Newcomb & Mustanski, 2010), but inconsistent with research indicating gender differences in the strength of the relationship between related concepts to internalized homophobia and depression (e.g., Luhtanen, 2003; Skidmore et al., 2006). The moderation model was based on the argument that the internalized homophobia-depression relation

would be stronger among gay men than lesbians because of their greater experience of acts of external homophobia, which would result in gay men internalizing society's negative attitudes towards homosexuality to a greater extent than lesbians (Newcomb & Mustanski, 2010). The findings of this study are consistent with Newcomb and Mustanski's revised proposal that the experience of *any* level of homophobia may be associated with the development of internalized homophobia, and the experience of homophobia is then associated with the experience of internalizing mental health problems. Consequently, gender does not influence the strength of the internalized homophobia-depression relationship.

The results indicating that age does not moderate the internalized homophobia-depression relation is inconsistent with the only study to investigate this model. Newcomb and Mustanski (2010) found in their meta analysis that the strength of the internalized homophobia-mental health relation increased as age of the participants increased. This was in contrast to the hypothesis, which predicted that the internalized homophobia-depression relation should be stronger among younger compared with older gay men and lesbians. This hypothesis was based on the argument that depression is more common among younger gay men and lesbians, and coincides with the coming out process. This is a time when internalized homophobia is at its most acute.

The difference in results may be explained, at least in part, by the fact that Newcomb and Mustanski (2010) measured a broad construct, psychological distress, whereas a measure of depression was used in the current study. Differences in the age distributions within the samples may also explain the differing results. Newcomb and Mustanski noted that few studies in their meta analysis had youth samples, or samples over the age of 40 years. In the current study, the sample was reasonably distributed, with 32% of the sample being youth (aged 18-25 years), 37% were aged 26-39 years, and 31% were aged 40 years and older.

This appears to be the first study to investigate whether place of residence moderates the internalized homophobia-depression relation. Results supported the moderation model for gay men, but not lesbians. In contrast to expectations, the internalized homophobia-depression relation was stronger for gay men who lived in urban areas. Unexpectedly, the relation between internalized homophobia and depression was not significant for gay men who lived in rural areas.

The hypothesis that the internalized homophobia-depression relation would be stronger for rural gay men was based on the argument that rural residents more likely to uphold traditional values, and that homophobia is seen as a method to protect masculinity. Life rural areas can be isolating for gay men and lesbians, and some choose to relocate to urban areas to enhance their chances of meeting other gay men and lesbians. Given the difficulties of living in rural areas as a gay man or lesbian, it was theorised that they would experience higher levels of internalized homophobia, and that internalized homophobia would in turn be more strongly associated with depression. In contrast to this proposition, internalized homophobia was not significantly associated with depression among rural dwelling gay men.

Rural life appears to offer benefits to gay men and lesbians. Benefits include the lifestyle that comes with living in a small community, and the ability to easily participate in recreation activities (Cody & Welch, 1997). In addition, gay men reported that the rural lifestyle helped them to develop deeper relationships with partners and friends (Cody & Welch, 2003). For some there is a clear choice to live in a rural environment, with at least some adults choosing to live in rural areas that have a reputation for being gay and lesbian “friendly” (Gottschalk & Newton, 2003). It is possible that gay men and lesbians who either remain living in a rural area or choose to locate to a rural area, find a place where they are comfortable, and able to live a happy life.

In contrast, it is possible that gay men who relocate from rural to urban areas to have greater access to other gay men may be experiencing high levels of internalized homophobia, which is then related to the experience of depression. It is also possible that at least some gay men who move to the city to establish a sense of belonging in the gay community do not find the positive experience they sought. Fraser's (2008) qualitative study indicated that there was a diverse array of opinions about the gay community among young Australian gay men. Whereas some of the gay men reported that the gay community was supportive and enabling, and was fundamental in helping form their sense of being gay, other gay men argued that it perpetrated myths about gay men and that the gay community represented an impossible ideal that was disabling and exclusive. Ridge, Minichiello, and Plummer (1997) found that most gay men in their study struggled to establish a social network within the gay scene that provided social support. Their results indicated that older men, men from ethnic minorities, men with lower socio-economic status and men whose physical appearance did not meet trends, had the most difficulty establishing social networks. Others (e.g., LeBeau & Jellison, 2009; Ridge, Plummer, & Peasley, 2006) report large numbers of gay men having negative experiences of "gay community".

Several limitations need to be considered. First, the study was cross-sectional in design. This design enabled tests of the strength of the relationships between the variables even though causality can not be inferred. The cross sectional design also leads to problems of common method variance, which commonly occurs when both the outcome and predictor variables are measured from the same source at the same time (Podsakoff, McKenzie, Lee, & Podsakoff, 2003).

The method of recruitment is also a limitation. All participants were recruited at prominent gay and lesbian events. Research has shown that internalized homophobia was associated with non-participation in gay groups among gay men (Ross & Rosser, 1996). It is,

therefore, likely that the level of internalized homophobia found in these samples are relatively low, and that higher levels would have been obtained if other methods of recruitment, such as online recruitment, were used.

The results of this study reinforce the important relationship between internalized homophobia and depression among self-identified gay men and lesbians. A range of interventions to reduce internalized homophobia have been documented (see Kashubeck-West, Szymanski, & Meyer, 2008). Based on the results of this study, similar methods of intervention can be used with gay men and lesbians of any age, as gender and age did not moderate the strength of the relationship between internalized homophobia and depression. The results highlight the importance of considering where a gay men lives when designing and implementing interventions. In particular, those who work with gay men need to target interventions aimed at reducing internalized homophobia towards gay men who live in urban areas. It is this group of men for whom internalized homophobia is strongly related to depression.

The result pertaining to the significant relation between internalized homophobia and depression among gay men living in urban areas warrants further attention. The extent to which the significant relationship is a result of rural gay men with high levels of internalized homophobia relocating to urban areas in search of a sense of belonging among other gay men needs to be investigated. In addition, research that further investigates the role of place of residence is needed. The “rural” groups consisted of gay men and lesbians who resided in centers with less than 100,000 population. Whether differences exist between those who live in less populated areas compared with those who live in larger centres is yet to be determined. In summary, this is one of the few studies to investigate gender and age as moderators of the internalized homophobia-depression relation among gay men and lesbians, and it appears to be the first study to investigate the role of place of residence in this

relationship. Results indicated that gay men who reside in urban areas appear to be at risk of internalized homophobia-related depression.

References

- Australian Institute of Health and Welfare. (2004). Rural, regional and remote health: A guide to remoteness classifications. AIHW Cat. No. PHE 53. Canberra, ACT, Australia: Author.
- Balsam, K. F., Rothblum, E. D., & Beauchaine, T. D. (2005). Victimization over the lifespan: A comparison of lesbian, gay, bisexual, and heterosexual siblings. *Journal of Consulting and Clinical Psychology, 73*, 477-487.
- Biernbaum, M. A., & Ruscio, M. (2004). Differences between matched heterosexual and non-heterosexual college students on defense mechanisms and psychopathological symptoms. *Journal of Homosexuality, 48* (1), 125-141.
- Cass, V. (1984). Homosexual identity formation: Testing a theoretical model. *Journal of Sex Research, 20*, 143-167.
- Cochran, S. D., & Mays, V. M. (2000). Lifetime prevalence of suicide symptoms and affective disorders among men reporting same-sex sexual partners: Results from NHANES III. *American Journal of Public Health, 90*, 573-578.
- Cody, P. J., & Welch, P. L. (1997). Rural gay men in northern New England. *Journal of Homosexuality, 33* (1), 51-67.
- Cohen, J., & Cohen, P. (1983). *Applied multiple regression analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.
- Carlson, H. M., & Steuer, J. (1985). Age, sex-role categorization, and psychological health in American homosexual and heterosexual men and women. *The Journal of Social Psychology, 125*, 203-211.
- Carpenter, J. S., Andrykowski, M. A., Hall, L. A., Rayens, M. K., Sachs, B., & Cunningham, L. L. C. (1998). Psychometrics for two short forms of the Center for Epidemiologic Studies - Depression Scale. *Issues in Mental Health Nursing, 19*, 481-494.

- D'Augelli, A. R., & Hart, M. M. (1987). Gay women, men, and families in rural settings: Toward the development of helping communities. *American Journal of Community Psychology, 15*, 79-93.
- D'Augelli, A. R., Pilkington, N. W., & Hershberger, S. L. (2002). Incidence and mental health impact of sexual orientation victimization of lesbian, gay, and bisexual youths in high school. *School Psychology Quarterly, 17*, 148-167.
- Fraser, S. (2008). Getting out in the "real world": Young men, queer and theories of gay community. *Journal of Homosexuality, 55* (2), 245-264.
- Frost, D. M., & Meyer, I. H. (2009). Internalized homophobia and relationship quality among lesbians, gay men, and bisexuals. *Journal of Counselling Psychology, 56*, 97-108.
- Goldberg, A. E., & Smith, J. Z. (2011). Stigma, social context, and mental health: Lesbian and gay couples across the transition to adoptive parenthood. *Journal of Counseling Psychology, 58*, 139-150.
- Gonsiorek, J. C. (1988). Mental health issues of gay and lesbian adolescents. *Journal of Adolescent Health Care, 9*, 114-122.
- Gottschalk, L., & Newton, J. (2003). *Not so gay in the bush: 'Coming out' in regional and rural Victoria*. Report prepared for the Department of Human Services, Grampians Region. Retrieved <http://www.opendoors.net.au/wp-content/uploads/2009/10/not-so-gay-in-the-bush.pdf>
- Gottschalk, L., & Newton, J. (2009). Rural homophobia: Not really gay. *Gay & Lesbian Issues and Psychology Review, 5*, 153-159.
- Hopwood, M., & Connors, J. (2002). Heterosexual attitudes to homosexuality. *Journal of Gay and Lesbian Social Services, 14*, 79-94.

- Igartua, K. J., Gill, K., & Montoro, R. (2003). Internalized homophobia: A factor in depression, anxiety, and suicide in the gay and lesbian population. *Canadian Journal of Mental Health, 22*, 15-30.
- Jorm, J. F., Korten, A. E., Rogers, B., Jacomb, P. A., & Christensen, H. (2002). Sexual orientation and mental health: Results from a community survey of young and middle-aged adults. *British Journal of Psychiatry, 180*, 423-427.
- Kashubeck-West, S., Szymanski, D., & Meyer, J. (2008). Internalized heterosexism: Clinical implications and training considerations. *The Counselling Psychologist, 36*, 615-630.
- King, M., Semlyen, J., Tai, S. S., Killaspy, H., Osborn, D., Popelyuk, D., et al. (2008). A systematic review of mental disorder, suicide, and deliberate self-harm in lesbian, gay and bisexual people. *BMC Psychiatry, 8*, 1-17.
- Kramer, J. L. (1995). Bachelor farmers and spinsters: Lesbian and gay identity and community in rural North Dakota. In D. Bell & G. Valentine (Eds.), *Mapping desire: Geographies of sexualities* (pp. 200-213). New York: Routledge.
- LeBeau, R. T., & Jellison, W. A. (2009). Why get involved? Exploring gay and bisexual men's experience of the gay community. *Journal of Homosexuality, 56* (1), 56-76.
- Lewis, R. J., Derlega, V. J., Griffen, J. L., & Krowinski, A. C. (2003). Stressors for gay men and lesbians: Life stress, gay-related stress, stigma consciousness, and depressive symptoms. *Journal of Social and Clinical Psychology, 22*, 716-729.
- Lindsey, B. J., Fabiano, P., & Stark, C. (2009). The prevalence and correlates of depression among college students. *College Students Journal, 43*, 999-1015.
- Luhtanen, R. K. (2003). Identity, stigma management, and well-being: A comparison of lesbians/bisexual women and gay/bisexual men. *Journal of Lesbian Studies, 7*(1), 85-100.

- Matthews, A. K., Hughes, T. L., Johnson, T., Razzano, L. A., & Cassidy, R. (2002). Prediction of depressive distress in a community sample of women: The role of sexual orientation. *American Journal of Public Health, 92* (7), 1131-1139.
- McCann, P. D., Minichiello, V., & Plummer, D. (2009). Is homophobia inevitable? Evidence that explores the constructed nature of homophobia, and the techniques through which men unlearn it. *Journal of Sociology, 45*, 201-220.
- McLaren, S., Gibbs, P. M., & Watts, E. (2013). The interrelations among age, sense of belonging and depressive symptoms among gay men and lesbians. *Journal of Homosexuality, 60* (1), 1-15.
- McNair, R., Kavanagh, A., Agius, P., & Tong, B. (2005). The mental health status of young adult and mid-life non-heterosexual Australian women. *Australian and New Zealand Journal of Public Health, 29* (3), 265-271.
- Meyer, I. H., & Dean, L. (1998). Internalized homophobia, intimacy, and sexual behaviour among gay and bisexual men. In G. Herek (Ed.), *Stigma and sexual orientation* (pp. 160-186). Thousand Oaks, CA: Sage.
- Newcomb, M. E., & Mustanski, B. (2010). Internalized homophobia and internalizing mental health problems: A meta-analytic review. *Clinical Psychology Review, 30*, 1019-1029.
- Podskaffe, P. M., McKenzie, S. B., Podsakoff, N. P., & Lee, J. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*, 879-903.
- Radloff, L. S. (1977). The CES-D scale: A self report depression scale for research in the general population. *Applied Psychological Measurement, 1*, 385-401.
- Ridge, D., Minichiello, V., & Plummer, D. (1997). Queer connections: Community, "the scene," and an epidemic. *Journal of Contemporary Ethnography, 26*, 146-181.

- Ridge, D., Plummer, D., & Peasley, D. (2006). Remaking the masculine self and coping in the liminal world of the gay 'scene'. *Culture, Health & Sexuality*, 8, 501-514.
- Ross, M. W., & Rosser, B. R. S. (1996). Measurement and correlates of internalized homophobia: A factor analytic study. *Journal of Clinical Psychology*, 52, 15-21.
- Shidlo, A. (1994). Internalized homophobia: Conceptual and empirical issues in measurement. In B. Greene & G. M. Herek (Eds.). *Lesbian and gay psychology: Theory, research and clinical applications*, pp. 176-205. Thousand Oaks, CA: Sage Publications.
- Snively, C. A., Kreuger, L., Stretch, J. J., Watt, J. W., & Chadha, J. (2004). Understanding homophobia: Preparing for practice realities in urban and rural settings. *Journal of Gay & Lesbian Social Services*, 17, 59-81.
- Sophie, J. (1988). Internalized homophobia and lesbian identity. *Journal of Homosexuality*, 14 (1-2), 53-66.
- Szymanski, D. M., Chung, Y. B., & Balsam, K. F. (2001). Psychosocial correlates of internalized homophobia in lesbians. *Measurement & Evaluation in Counseling & Development*, 34, 27-38.
- Troiden, R. R. (1989). The formation of homosexual identities. *Journal of Homosexuality*, 17 (1-2), 43074.
- Wagner, G. J. (1998). Internalized homophobia scale. In C. M. Davies, W. L. Yarber, R. Bauserman, G. Schreer, & S. L. Davis (Eds), *Handbook of sexuality-related measures* (pp. 371-372). Thousand Oaks, CA: Sage Publications.
- Wagner, G., Serafini, J., Rabkin, J., Remien, R., & Williams, J. (1994). Integration of one's religion and homosexuality: A weapon against internalized homophobia? *Journal of Homosexuality*, 26, 91-109.

Westefeld, J. S., Maples, M. R., Buford, B., & Taylor, S. (2001). Gay, lesbian, and bisexual college students: The relationship between sexual orientation and depression, loneliness, and suicide. *Journal of College Student Psychotherapy, 15*, 71-82.

Table 1

Demographic Characteristics of Sample

Variable	Lesbians		Gay Men	
	<i>n</i>	%	<i>n</i>	%
Relationship Status				
Partnered	354	62.1	161	51.8
Single	185	32.5	133	42.8
Married	17	3.0	1	0.3
Separated/Divorced	18	3.2	11	3.5
Widowed	3	0.5	1	0.3
Other	10	1.8	4	1.3
Highest Level of Education				
Secondary/Trade Qualification	299	52.5	140	45.0
Undergraduate	156	27.4	92	29.6
Postgraduate	115	20.2	79	25.4
Current Employment Status				
Full Time	282	49.5	175	56.3
Part Time	192	33.7	67	21.5
Unemployed	66	11.6	38	12.2
Retired	7	1.2	10	3.2
Other	23	4.0	21	6.8
Income per annum				
<\$10,000	103	18.1	42	13.5
\$10,000-\$19,999	54	9.5	38	12.2
\$20,000-\$29,999	55	9.6	13	4.2
\$30,000-\$39,999	78	13.7	47	15.1

\$40,000-\$49,999	78	13.7	34	10.9
\$50,000-\$59,999	78	13.7	36	11.6
\$60,000-\$69,999	46	8.1	28	9.0
>\$70,000	78	13.7	73	23.5
Place of residence				
Urban	343	60.2	179	57.6
Rural	227	39.8	132	42.4

Table 2

Descriptive Statistics and Pearson's Correlation Coefficients

Variable	1	2	3	4	<i>M</i>	<i>SD</i>
1. Depressive symptoms	-	.32***	-.15**	.09	15.14	10.81
2. Internalized homophobia	.34***	-	-.14 *	-.03	38.25	13.34
3. Age	-.23***	-.16***	-	.00	35.37	12.56
4. Place of residence ^a	.04	.03	-.07	-		
<i>M</i>	15.78	35.99	32.25			
<i>SD</i>	11.88	12.06	11.61			

^a 0 = urban, 1 = rural.

Note. Correlations above the diagonal are for gay men, and correlations below the diagonal are for lesbians.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3

Results of the Regression Analysis for Gender Moderating the Internalized Homophobia-Depression Relation.

	<i>b</i>	<i>SE</i>	β	<i>t</i>
Step 1 [$R^2 = .11$, adjusted $R^2 = .11$, $F(2, 878) = 54.71^{***}$]				
Gender	0.31	.03	.33	10.43***
Internalized Homophobia	1.33	0.77	.06	1.73
Step 2 [$\Delta R^2 = .00$, adjusted $R^2 = .11$, $\Delta F(1, 877) = 1.62$]				
Gender	0.26	0.05	.28	5.61***
Internalized Homophobia	1.29	0.77	.05	1.68
Gender x Internalized Homophobia	0.08	0.06	.06	1.27

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 4

Results of the Regression Analyses for Age and Place of Residence Moderating the Internalized Homophobia-Depression Relation for Lesbians

	<i>b</i>	<i>SE</i>	β	<i>t</i>
Step 1 [$R^2 = .15$, adjusted $R^2 = .15$, $F(2, 567) = 49.34^{***}$]				
Age	-0.18	0.04	-.18	-4.63***
Internalized Homophobia	0.31	0.04	.32	7.94***
Step 2 [$\Delta R^2 = .00$, adjusted $R^2 = .14$, $\Delta F(1, 566) = 0.00$]				
Age	-0.18	0.04	-.18	-4.49***
Internalized Homophobia	0.31	0.04	.31	7.80***
Age x Internalized Homophobia	0.00	0.00	.00	0.02
Step 1 [$R^2 = .12$, adjusted $R^2 = .11$, $F(2, 567) = 37.56^{***}$]				
Place of Residence ^a	0.74	0.96	.03	0.76
Internalized Homophobia	0.34	0.04	.34	8.61***
Step 2 [$\Delta R^2 = .00$, adjusted $R^2 = .11$, $\Delta F(1, 566) = 0.03$]				
Place of Residence ^a	0.73	0.96	.03	0.76
Internalized Homophobia	0.34	0.05	.35	6.74***
Place of Residence x Internalized Homophobia	-0.01	.08	-.01	-0.17

^a 0 = urban, 1 = rural.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 5

Results of the Regression Analyses for Age and Place of Residence Moderating the Internalized Homophobia-Depression Relation for Gay Men

	<i>b</i>	<i>SE</i>	β	<i>t</i>
Step 1 [$R^2 = .12$, adjusted $R^2 = .11$, $F(2, 308) = 19.94^{***}$]				
Age	-0.10	0.05	-.11	-2.06 *
Internalized Homophobia	0.25	0.04	.30	5.62***
Step 2 [$\Delta R^2 = .00$, adjusted $R^2 = .11$, $\Delta F(1, 307) = 0.14$]				
Age	-0.10	0.05	-.11	-2.06 *
Internalized Homophobia	0.25	0.04	.31	5.62***
Age x Internalized Homophobia	0.00	0.00	-.02	-0.37
Step 1 [$R^2 = .11$, adjusted $R^2 = .11$, $F(2, 308) = 19.43^{***}$]				
Place of Residence ^a	2.14	1.17	.10	1.82
Internalized Homophobia	0.26	0.04	.32	6.02***
Step 2 [$\Delta R^2 = .04$, adjusted $R^2 = .14$, $\Delta F(1, 307) = 14.28^{***}$]				
Place of Residence ^a	2.57	1.16	.12	2.23 *
Internalized Homophobia	0.40	0.06	.49	7.13***
Place of Residence x Internalized Homophobia	-0.33	0.09	-.26	-3.78***

^a 0 = urban, 1 = rural.

* $p < .05$. ** $p < .01$. *** $p < .001$.

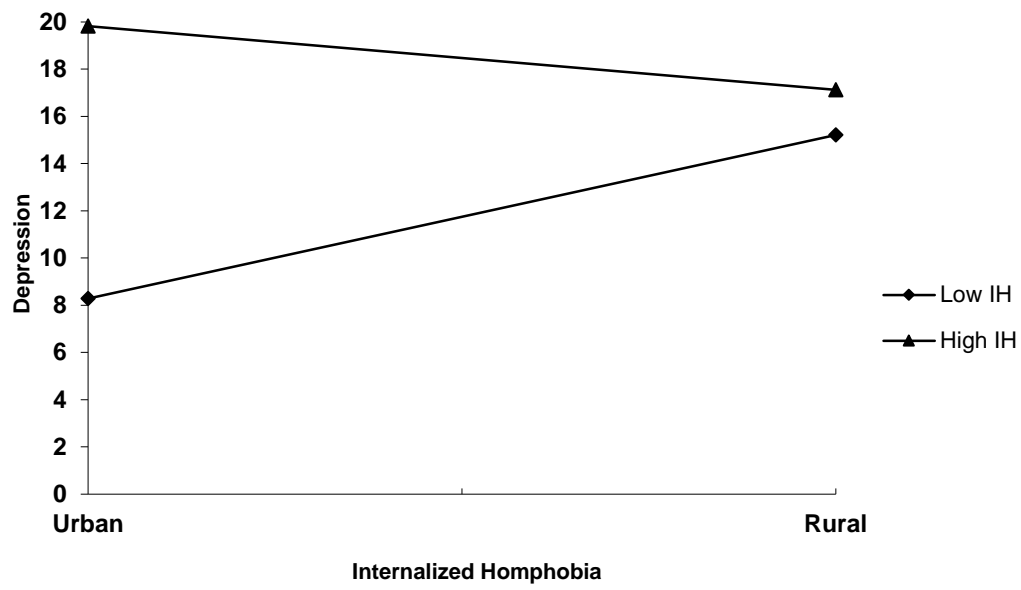


Figure 1. Depression as a function of internalized homophobia and place of residence for gay men.