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*Homophobic stigmatization and internalized homophobia as mediators*

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# Gender nonconformity and mental health among lesbian, gay, and bisexual adults: Homophobic stigmatization and internalized homophobia as mediators

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## Abstract

We assessed among a sample of 724 Dutch lesbian, gay, and bisexual-identified adults ( $M_{\text{age}} = 31.42$ ) whether experiences with homophobic stigmatization and internalized homophobia simultaneously mediated the relation of gender nonconformity with mental health. Results indicated that homophobic stigmatization and internalized homophobia partially mediated the relation between gender nonconformity and mental health. Gender nonconformity was related to more mental health problems via increased experiences with homophobic stigmatization and to less mental health problems because of reduced levels of internalized homophobia. However, the mediated relation of gender nonconformity with mental health via homophobic stigmatization was only significant for men.

## Keywords

gender nonconformity, homophobic stigmatization, internalized homophobia, lesbian, gay, and bisexual, mental health

## Introduction

Numerous studies have documented that lesbian, gay, and bisexual (LGB) persons report greater mental health problems when compared to heterosexual persons (Cochran et al., 2003; Gevonden et al., 2014; Sandfort et al., 2014). According to minority stress theory (Meyer, 1995, 2003), differences in mental health status between LGB and heterosexual people are the consequence of minority stressors. These minority stressors are unique for LGB people and add to general stressors in life which are experienced

by everyone (Meyer, 1995, 2003). Four minority stressors have been distinguished: experiences

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with homophobic stigmatization, expectation of stigmatization, the concealment of a same-sex sexual orientation, and internalized homophobia. The latter minority stressor refers to the direction of antigay attitudes toward the self and/or other LGB people. These antigay attitudes are internalized through early and ongoing socialization processes and experiences with stigmatization. The self-devaluation that may result from applying such antigay attitudes to the self can create mental health problems (Meyer, 1995, 2003). Research supports that minority stressors are important factors related to the mental health of LGB persons (e.g. Berg et al., 2015; Collier et al., 2013; Newcomb and Mustanski, 2010).

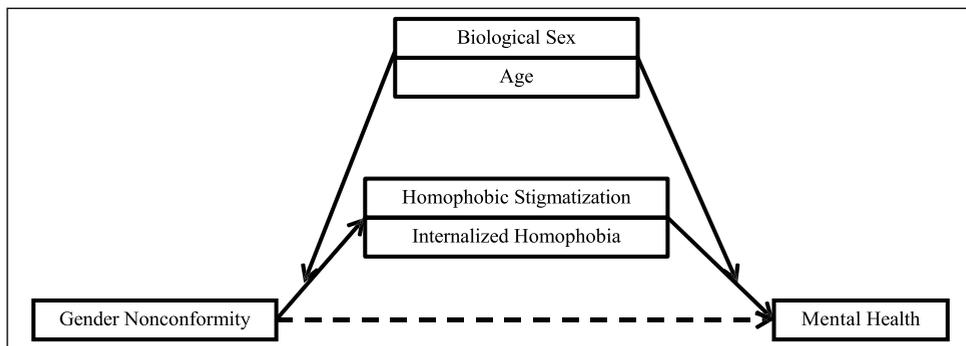
In this study, we focus on two minority stressors in relation to gender nonconformity: experience with homophobic stigmatization and internalized homophobia. Gender nonconformity, which is more prevalent among LGB people (Bailey et al., 2000; Bailey and Zucker, 1995), is one of the factors likely to contribute to homophobic stigmatization. Gender nonconformity refers to a gender expression that does not match social and cultural norms prescribed to one's (birth)sex (Lippa, 2002). Due to the confusion of gender nonconformity with a same-sex sexual orientation, gender non-conforming LGB persons are more likely seen by others as LGB (Johnson and Ghavami, 2011), which may place them at higher risk for homophobic stigmatization and subsequent mental health problems. Consistent with this reasoning, findings from previous studies indicate that experiences with homophobic stigmatization explain (i.e. mediate) the relation between gender nonconformity and poor mental health among LGB individuals (e.g. Baams et al., 2013; Sandfort et al., 2007).

In contrast to what is known about the mediational role of homophobic stigmatization in the relation between gender nonconformity and mental health, we only know of two studies that assessed the role of internalized homophobia. D'Augelli et al. (2008) found gender nonconformity to be related with lower levels of internalized homophobia among LGB persons. A study among South African Black men who have sex with men found similar findings and

also reported that gender nonconformity was related to lower levels of depression through reduced scores on internalized homophobia (Sandfort et al., 2015). It thus seems that gender nonconformity is not only a risk factor for poor mental health, because of increased exposure to homophobic stigmatization, but may also protect against poor mental health via reduced levels of internalized homophobia. One explanation for why gender nonconformity is negatively related to internalized homophobia might be that gender-nonconforming LGB individuals are more often questioned about their sexual orientation than their more gender-conforming counterparts. Such frequent questioning of one's sexual orientation may motivate gender-nonconforming LGB persons to disclose their sexual orientation at an earlier age, thereby giving them more time to come to terms with their sexual orientation and consequently experience lower levels of internalized homophobia.

Although previous research found internalized homophobia to mediate the relation between gender nonconformity and mental health among South African Black men who have sex with men (Sandfort et al., 2015), it is not clear whether these findings also extend to self-identified GB men and LB women in Western countries. Therefore, in this study, we examined the hypothesis that Dutch LGB adults with high levels of gender nonconformity would report *less* mental health problems via reduced scores of internalized homophobia. In addition, we examined the hypothesis that LGB adults with high levels of gender nonconformity would report *more* mental health problems, via increased levels of perceived experiences with homophobic stigmatization.

We explored (biological) sex and age differences in both the relations between gender nonconformity and our potential mediator variables (i.e. homophobic stigmatization and internalized homophobia), and the relations between the potential mediator variables and mental health. Sex differences were explored because research on sex differences in the relations of gender nonconformity with minority stress and mental health are scarce and provide mixed results. For



**Figure 1.** Conceptual moderated-mediation model, in which biological sex and age moderate the mediated relation of gender nonconformity with mental health through homophobic stigmatization and internalized homophobia.

instance, some studies indicated that gender nonconformity is more strongly related to stigmatization among GB men as opposed to LB women (e.g. D’haese et al., 2015; D’Augelli et al., 2006), whereas others found no sex differences (e.g. Baams et al., 2013; Toomey et al., 2010). Studies that assessed sex differences in the relation between minority stress and mental health also yield inconsistent results and need further assessment: some studies found that homophobic stigmatization was more strongly related to the mental health of GB men than that of LB women (Almeida et al., 2009; De Graaf et al., 2006), while others found no sex differences (Rosario et al., 2002; Silverschanz et al., 2008). Findings from a meta-analysis of 31 studies indicated no differences between GB men and LB women in the relationship between internalized homophobia and (internalizing) mental health problems (Newcomb and Mustanski, 2010).

With regard to the role of age, we are unaware of studies among LGB adults that assessed age differences in the relations of gender nonconformity with homophobic stigmatization and internalized homophobia. It might be that the negative relation between gender nonconformity and internalized homophobia is stronger for older than for younger LGB adults, because older gender-nonconforming LGB adults may have had more opportunity to come to terms with their same-sex sexuality and non-conforming

gender expression. We are also unaware of studies that assessed the moderating role of age in the relation between homophobic stigmatization and mental health. Findings from a meta-analysis, however, indicated that the negative influence of internalized homophobia on LGB adults’ mental health increased along with participants’ age (Newcomb and Mustanski, 2010). Given the scarcity of studies that assessed the role of age in the relations of gender nonconformity with minority stress and mental health, we will further explore the role of age in this study. Figure 1 presents our conceptual moderated-mediation model.

## Method

### Participants

A total of 748 LGB-identified individuals participated in this study. Of them, 24 participants were excluded from the analyses because they identified themselves as heterosexual, resulting in an analytic sample of 724 participants (between 18 and 73 years;  $M_{age} = 31.42$ , standard deviation (SD) = 11.19). Of the 395 male participants, 92.9 percent identified as gay and 7.1 percent as bisexual. Of the 329 female participants, 73.3 percent identified as lesbian and 26.7 percent as bisexual. Participants’ level of completed education varied as follows: high school (30.4%), middle-level applied education

(14%), and vocational university or university (55.6%). The majority of the participants reported that they had a Dutch/Western background (90.5%). The most frequently reported non-Western backgrounds were Indonesian (2.4%) and Aruban (0.6%).

### Procedure

Data for this study were collected between November and December 2013 through an online survey that was advertised on several Dutch LGB-oriented websites. The advertisement invited visitors to participate in a study that specifically involved adults who identified as LGB. The advertisement also made clear that the study was about the relationships between gender nonconformity, experiences with homophobic stigmatization, internalized homophobia, and mental health. The advertisement also mentioned that the anonymity of participants' answers was guaranteed. Furthermore, flyers advertising the study were distributed by research assistants in several LGB venues in urban areas in the Netherlands. The advertisement included a link to start the online survey. Participants were asked to give informed consent on the first page of the online survey. Qualtrics survey software was used to store participants' responses on secure and password-protected servers (Qualtrics, Provo, UT). The Ethics Committee of the University of Amsterdam approved the study design and protocol.

### Measures

**Gender nonconformity.** We assessed current gender nonconformity with four self-ascribed masculinity and femininity items (Lippa, 2002, for original scale see Storms, 1979).

Example items include "I see myself as someone who is masculine (feminine)" and "I see myself as someone who acts, appears, and comes across to others as masculine (feminine)." Participants answers were anchored on a 7-point scale (1 = *not applicable to me* and 7 = *applicable to me*). The self-ascribed masculinity items were recoded for males, and for

females, we recoded the self-ascribed femininity items. A mean score of gender nonconformity was created by averaging responses on the self-ascribed femininity and masculinity items. Higher scores reflected greater gender nonconformity; Cronbach's alpha = .82 for male and .90 for female participants.

**Experiences with homophobic stigmatization.** We used an adapted version of the Experience of Rejection Scale to measure participants' perceived experiences with homophobic stigmatization (Baams et al., 2013; Sandfort et al., 2006). The scale was originally developed to measure experiences with rejection related to being a lesbian/gay parent and was adapted to measure rejection related to being LGB (for the original scale, see Bos et al., 2004). Using a 4-point scale (1 = *never* to 4 = *three times or more*), participants indicated the extent to which they experienced nine different forms of aggression in the preceding year because of their same-sex sexual orientation (e.g. being verbally insulted). Mean scores were used as an indicator of experiences with homophobic stigmatization with higher scores indicating greater exposure to homophobic stigmatization; Cronbach's alpha = .83.

**Internalized homophobia.** We used an internalized homophobia scale developed by Sandfort (1997) to assess participants' internalized homophobia. This scale was based upon existing instruments (e.g. Herek and Glunt, 1995; Ross and Rosser, 1996) and measures negative attitudes of LGB persons toward their own sexual orientation and negative attitudes toward other LGB persons. The scale consists of 11 separate items for men and women: (for men: "Because I am gay or bisexual I cannot really be myself"; see Note 1). Response options ranged from 1 = *fully disagree* to 5 = *fully agree*. Mean scores were used as an indicator of internalized homophobia with higher scores indicating greater internalized homophobia; Cronbach's alpha = .80 for men and .79 for women.

**Mental health.** A shortened version of the Brief Symptom Inventory (BSI) (Sandfort et al., 2010;

for the original scale, see Derogatis, 1993) was used to assess mental health. The BSI was designed to screen for global psychological distress on three symptom dimensions (somatization, depression, and anxiety). Using a 5-point scale (1 = *not at all* to 5 = *extremely*), participants were asked to rate the occurrence of 24 symptoms in the past week (e.g. “feeling tense or keyed up”). The mean score was computed, with a higher score indicating greater mental health problems; Cronbach’s alpha for this scale was .95.

## Analyses

In the first step, a bootstrapped multiple-mediation analysis was carried out to assess perceived homophobic stigmatization and internalized homophobia as simultaneous mediators of the relation between gender nonconformity and mental health. In the bootstrapping analysis, the original sample of 724 participants was used to generate multiple random samples (in the current analyses: 10,000 random samples). For each random sample, the size of the mediation effects was calculated. The distribution of these mediation effects was used to obtain 95 percent bias-corrected confidence intervals (CIs) for the size of the mediation effects. Significant mediation was demonstrated if the 95 percent bias-corrected CI for the mediation effect did not contain zero (Hayes, 2013). We used the completely standardized effect ( $c_{cs}$ ) as an effect size measure for the mediation effects (Preacher and Kelley, 2011).

In the second step, bootstrapped moderated-mediation analyses were conducted to assess whether the mediated relation of gender nonconformity with mental health, via homophobic stigmatization and internalized homophobia differed between male and female participants and/or participants’ age. These analyses were carried out separately for each potential moderator variable.

## Results

### Descriptive analyses

*Sex and age differences in studied variables.* Analyses of variance (ANOVAs) were carried

out to assess sex differences in our studied variables (see Table 1). Results indicated that GB men were significantly older, reported lower levels of gender nonconformity, higher levels of homophobic stigmatization, and higher levels of internalized homophobia than LB women. GB men and LB women did not differ significantly in levels of mental health.

Pearson’s  $r$  correlations were calculated to assess the relations between age and our studied variables (see Table 1). Significant negative correlations were found for age with gender nonconformity and mental health, and a significant positive correlation was found between age and homophobic stigmatization. Age did not correlate significantly with internalized homophobia.

### Homophobic stigmatization and internalized homophobia as mediators

In the total sample, both homophobic stigmatization and internalized homophobia were found to mediate the relation between gender nonconformity and mental health. Both mediated effects indicated a small effect size (homophobic stigmatization:  $c_{cs} = .01$ , standard error (SE) = .01, 95% bootstrap CI = .001, .034; internalized homophobia:  $c_{cs} = -.04$ , SE = .01, 95% bootstrap CI = -.059, -.019). All relations were in the expected direction: greater gender nonconformity predicted higher levels of homophobic stigmatization ( $\beta = .07$ , SE = .04,  $p = .044$ ) and lower levels of internalized homophobia ( $\beta = -.17$ , SE = .04,  $p < .001$ ). Higher levels of homophobic stigmatization and higher levels of internalized homophobia, in turn, predicted more mental health problems ( $\beta = .19$ , SE = .04,  $p < .001$ ;  $\beta = .21$ , SE = .04,  $p < .001$ , respectively). Homophobic stigmatization and internalized homophobia only partially mediated the relation between gender nonconformity and mental health; the direct relation between gender nonconformity and mental health remained significant ( $\beta = .13$ , SE = .04,  $p < .001$ ). See Note 2.

**Table 1.** Intercorrelations among the studied variables.

|  | 1       | 2       | 3      | 4      | 5 | M                  | SD      |
|--|---------|---------|--------|--------|---|--------------------|---------|
| <b>Overall</b>                         |         |         |        |        |   |                    |         |
| Age                                    | –       |         |        |        |   | 31.42              | (11.19) |
| Gender nonconformity <sup>a</sup>      | -.10**  | –       |        |        |   | 3.27               | (0.74)  |
| Homophobic stigmatization <sup>b</sup> | .10**   | .07*    | –      |        |   | 1.30               | (0.44)  |
| Internalized homophobia <sup>c</sup>   | -.05    | -.17*** | -.03   | –      |   | 1.91               | (0.62)  |
| Mental health <sup>d</sup>             | -.15*** | .11**   | .19*** | .18*** | – | 1.64               | (0.63)  |
| <b>Men</b>                             |         |         |        |        |   |                    |         |
| Age                                    | –       |         |        |        |   | 33.69 <sup>e</sup> | (11.69) |
| Gender nonconformity                   | -.15**  | –       |        |        |   | 3.03 <sup>e</sup>  | (0.66)  |
| Homophobic stigmatization              | .10*    | .18***  | –      |        |   | 1.34 <sup>e</sup>  | (0.50)  |
| Internalized homophobia                | -.10*   | -.14**  | -.09   | –      |   | 2.03 <sup>e</sup>  | (0.64)  |
| Mental health                          | -.12*   | .21***  | .20*** | .14**  | – | 1.65               | (0.64)  |
| <b>Women</b>                           |         |         |        |        |   |                    |         |
| Age                                    | –       |         |        |        |   | 28.69              | (9.90)  |
| Gender nonconformity                   | .14*    | –       |        |        |   | 3.56               | (0.74)  |
| Homophobic stigmatization              | .05     | .02     | –      |        |   | 1.25               | (0.34)  |
| Internalized homophobia                | -.09    | -.08    | .02    | –      |   | 1.78               | (0.57)  |
| Mental health                          | -.21*** | .01     | .17**  | .24*** | – | 1.64               | (0.61)  |

<sup>a</sup>Absolute range: 1–7, where 1 = low score and 7 = high score on gender nonconformity.

<sup>b</sup>Absolute range: 1–4, where 1 = low score and 4 = high score on homophobic stigmatization.

<sup>c</sup>Absolute range: 1–5, where 1 = low score and 5 = high score on internalized homophobia.

<sup>d</sup>Absolute range: 1–5, where 1 = low score and 5 = high score on mental health.

<sup>e</sup>ANOVA showed a significant difference between LGB men and women.

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

### Biological sex as a moderator

Table 2 presents the results for the moderated-mediation analysis with (biological) sex as a moderator. The significant interaction of gender nonconformity  $\times$  sex on homophobic stigmatization supported moderated-mediation. Simple slope analyses revealed that gender nonconformity was only related to homophobic stigmatization for GB men ( $\beta = .24$ ,  $t = 4.26$ ,  $p < .001$ ), but not for LB women ( $\beta = .02$ ,  $t = .35$ ,  $p = .729$ ). The non-significant interaction of homophobic stigmatization  $\times$  sex on mental health indicated no differences in the relation of homophobic stigmatization with mental health between LGB men and women. Moderated-mediation effects showed that the mediation of homophobic stigmatization on the relation between gender nonconformity and mental health was significant for GB men ( $\beta = .04$ ,  $SE = .02$ , 95% bootstrap CI = .013,

.096), and not for LB women ( $\beta = .00$ ,  $SE = .01$ , 95% bootstrap CI =  $-.012$ , .023).

No support was found for sex as a moderator of the mediated relation between gender nonconformity and mental health via internalized homophobia: non-significant interactions were found for gender nonconformity  $\times$  sex on internalized homophobia and internalized homophobia  $\times$  sex on mental health. This indicates there are no differences between GB men and LB women in both the relations of gender nonconformity with internalized homophobia and internalized homophobia with mental health (see Note 2).

### Age as moderator

Results for the moderated-mediation analyses with age as a moderator are also presented in Table 2. Age did not moderate the mediated

**Table 2.** Results from the moderated-mediation analysis with (biological) sex and age as a moderator.

|  | $\beta$ | SE  | <i>p</i> |
|--|---------|-----|----------|
| <i>Sex as a moderator</i>                    |         |     |          |
| Mediator variable: homophobic stigmatization |         |     |          |
| Sex  | -.14    | .04 | <.001    |
| Gender nonconformity                         | .14     | .04 | <.001    |
| Gender nonconformity $\times$ sex            | -.11    | .04 | .005     |
| Mediator variable: internalized homophobia   |         |     |          |
| Sex  | -.16    | .04 | <.001    |
| Gender nonconformity                         | -.12    | .04 | .002     |
| Gender nonconformity $\times$ sex            | .04     | .04 | .292     |
| Dependent variable: mental health            |         |     |          |
| Sex  | .02     | .04 | .642     |
| Homophobic stigmatization                    | .19     | .04 | <.001    |
| Internalized homophobia                      | .22     | .04 | <.001    |
| Homophobic stigmatization $\times$ sex       | .01     | .04 | .816     |
| Internalized homophobia $\times$ sex         | .05     | .04 | .218     |
| <i>Age as a moderator</i>                    |         |     |          |
| Mediator variable: homophobic stigmatization |         |     |          |
| Age  | .11     | .04 | .003     |
| Gender nonconformity                         | .08     | .04 | .024     |
| Gender nonconformity $\times$ age            | .02     | .04 | .642     |
| Mediator variable: internalized homophobia   |         |     |          |
| Age  | -.07    | .04 | .055     |
| Gender nonconformity                         | -.17    | .04 | <.001    |
| Gender nonconformity $\times$ age            | -.07    | .04 | .066     |
| Dependent variable: mental health            |         |     |          |
| Age  | -.15    | .04 | <.001    |
| Homophobic stigmatization                    | .23     | .04 | <.001    |
| Internalized homophobia                      | .21     | .04 | <.001    |
| Homophobic stigmatization $\times$ age       | -.05    | .03 | .091     |
| Internalized homophobia $\times$ age         | -.01    | .03 | .855     |

relations of gender nonconformity with mental health via homophobic stigmatization: both interactions of gender nonconformity  $\times$  age on homophobic stigmatization and homophobic stigmatization  $\times$  age on mental health were non-significant. These results indicated that both the relations of gender nonconformity with homophobic stigmatization and homophobic stigmatization with mental health did not vary by participants' age.

Furthermore, age also did not moderate the mediated relations of gender nonconformity with mental health via internalized homophobia: the interactions of gender nonconformity  $\times$  age

on internalized homophobia and internalized homophobia  $\times$  age on mental health were not significant. Thus, participants' age had no influence on the strength of the relations of gender nonconformity with internalized homophobia and internalized homophobia with mental health (see Note 2).

## Discussion

This study, among a sample of 724 Dutch LGB-identified adults, found that gender nonconformity was related to poor mental health. This relationship was partially explained (i.e. mediated) through

perceived experiences with homophobic stigmatization and internalized homophobia. That is, gender

nonconformity was related to not only more mental health problems via increased experiences with homophobic stigmatization but also to less mental health problems because of reduced scores on internalized homophobia. We explored whether participants' biological sex and age would moderate these mediational relationships, from gender nonconformity to mental health via homophobic stigmatization and internalized homophobia. Only biological sex was found to moderate the mediated relation between gender nonconformity and mental health via homophobic stigmatization: homophobic stigmatization explained the relation between gender nonconformity and mental health for GB men, but not LB women.

Our findings are consistent with earlier research that demonstrated the mediational role of perceived homophobic stigmatization in the relation between gender nonconformity and mental health (Baams et al., 2013; Sandfort et al., 2007). These findings are important as they help to identify individual differences between LGB persons that place them at risk for homophobic stigmatization and subsequent mental health problems. One common explanation for increased experiences with homophobic stigmatization among LGB individuals that are gender-nonconforming is that they are more likely perceived as gay or lesbian due to their gender expression (Johnson and Ghavami, 2011). In tandem with this increased perception as being gay or lesbian, homophobic stigmatization may also increase.

Relatively few prior studies assessed differences between GB men and LB women in the mediated relation of gender nonconformity with mental health via perceived homophobic stigmatization (Baams et al., 2013). Our current results indicate that the mediation was significant for GB males and not for LB women. That is, for LB women, gender nonconformity was not significantly related to experiences with homophobic stigmatization. These findings are in line with previous studies showing that men

experience more negative sanctions when violating their gender role than women (e.g. D'haese et al., 2015). One reason why gender nonconformity is related to more homophobic stigmatization among GB males, but not among LB females, could be that men's gender roles are more narrowly defined than women's gender roles (Vandello and Bosson, 2013). Manhood has been described as a social status that is elusive, hard to earn, and easy to lose. Womanhood in contrast is regarded as an ascribed status resulting from biological changes that remains secure after it is earned (Vandello and Bosson, 2013). Sandfort (2005) suggests that the different treatment of male versus female gender nonconformity might result from the higher status associated with the gender role of men compared to the gender role of women in western societies.

This study is one of the first to demonstrate that gender nonconformity is not only related to poor mental health via perceived homophobic stigmatization but can also be protective against poor mental health via reduced levels of internalized homophobia (Sandfort et al., 2015). Hence, gender nonconformity may affect LGB individuals in two fundamentally different ways: placing them at higher risk for distal minority stressors, while at the same time protecting them from proximal minority stressors. This finding leads to a fundamental question: is gender nonconformity a risk factor or a protective factor in LGB individuals' life course development? The answer, in part, seems to depend on the specific developmental periods LGB individuals find themselves in. During adolescence, adherence to gender role conventions become more important (Eder, 1985; Eder et al., 1995), and LGB youth who are gender-nonconforming might be exposed to homophobic peer victimization, which can affect their mental health negatively (Collier et al., 2013). However, frequent questioning of one's sexual orientation and homophobic peer victimization may stimulate the formation and integration of a positive LGB identity. That is, such experiences may motivate gender-nonconforming LGB individuals to come out and to seek

support from other LGB individuals. In a later phase of their lives, gender non-conforming LGB persons may thus had more opportunity to develop effective strategies to counteract negative evaluations toward their sexual orientation when compared to gender-conforming LGB persons. It thus seems that gender nonconformity serves as an initial source of stress, but over time might also have protective values.

Our present results showed no age differences in the mediated relation of gender nonconformity with mental health, via internalized homophobia. An absence of age-related differences can be explained by our sample characteristics. Although our age range (18–73 years) is broad, we included only adult participants. The inclusion of young adolescent participants could have resulted in more variation in internalized homophobia scores necessary to detect age differences. Due to increasing acceptance of LGB individuals, more youth tend to disclose a same-sex sexual orientation at earlier ages (Russell and Fish, 2016). For Dutch LGB youth, the average age of disclosure is 16.3 years (De Graaf et al., 2012). Around the first time of disclosure, the effects of internalized homophobia are especially intensified (Meyer, 1995). Thus, especially in this developmental period, gender nonconformity may be strongly linked to internalized homophobia, and internalized homophobia to mental health problems. Furthermore, we recruited our participants via LGB websites and venues. People at LGB venues are more likely to be more open about their sexual orientation (Kuyper et al., 2015). In other words, we might have been unable to detect age-related differences because our participants may have already reached the developmental milestone of sexual orientation disclosure, and accordingly experienced lower levels of internalized of homophobia. Future studies assessing the relation between gender nonconformity and mental health via internalized homophobia might consider a longitudinal design with the inclusion of younger adolescents. This way the assessment of sexual minority specific milestones (e.g. coming-out and identification as LGB) can shed light on how

gender nonconformity may influence internalized homophobia over time.

### *Strengths and limitations*

As prior research mostly assessed correlates of internalized homophobia among restricted samples of GB men, a main strength of the study is our inclusion of LB women as well. Furthermore, due to our large sample size, we were able to reliably assess whether biological sex and age moderated the mediated relations between gender nonconformity and mental health.

Nevertheless, our study also has some limitations to note. First, the experience of LGB persons who participated in this study may be specific to this sample. We recruited our participants conveniently through LGB venues and LGB websites; this does not provide access to a representative sample of LGB adults. Furthermore, we did not ask participants to identify their gender identity in addition to their biological sex. Accordingly, we do not know whether all the participants were cis-gender. To have a broader understanding of the role of gender nonconformity within the minority stress model, future studies might include the experiences of non-LGB-identified individuals with feelings of same-sex attraction and/or engagement in same-sex sexual behavior as well as transgender individuals.

Furthermore, we theorized that gender nonconformity is negatively related to internalized homophobia, because gender-nonconforming LGB individuals may come out at an earlier age and receive more (LGB specific) social support which may foster the development of a positive LGB identity. However, we did not assess sexual orientation disclosure nor did we assess the extent to which participants had contact with other LGB individuals or received (LGB specific) social support. Further research is needed to assess the potential role of sexual orientation disclosure and social support in the mediated relations of gender nonconformity with mental health as postulated here.

It should also be noted that we used cross-sectional data to assess mediation analyses. Cross-sectional data do not provide information

about cause-and-effect relationships. For instance, in contrast to what is suggested here, greater gender nonconformity might also follow, instead of precede, low levels of internalizing homophobia. Longitudinal research is needed to clarify the directions of the relationships described in this study.

Regardless of causal direction, the correlations reported here indicate that gender nonconformity is an important factor to consider when understanding minority stress processes among LGB individuals. Our results specify that for GB males only, gender nonconformity is a risk factor for mental health, because of increased levels of homophobic stigmatization. Gender nonconformity was also a protective factor against mental health, because of decreased levels of internalized homophobia. Our findings suggest that practitioners and policymakers should be aware of the likelihood of homophobic stigmatization experiences for gender nonconforming GB males, while at the same time recognizing that LGB adults who are gender-conforming might experience heightened levels of internalized homophobia.

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### Notes

1. For women, the same items were used but we changed "gay or bisexual" into "lesbian or bisexual."

2. Subsequent analyses in which we separately controlled for sexual identity (1 = *lesbian or gay*; 2 = *bisexual*), and sexual attraction/experiences (lifetime same-sex attracted feelings and same-sex experiences; 1 = *absolutely not*; 5 = *always*) yielded no differences in the pattern results.

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