ABSTRACT

As widely demonstrated, minority stress negatively affects well-being of LGBTQIA+ people. Recently, the literature has inquired into the psychological factors that may explain individual differences in levels of minority stressors experienced. In particular, some studies have focused on the role of adult attachment, although further studies seem necessary to understand its impact on proximal minority stressors.

Through three multiple regression models, the present research analyzed the impact of adult attachment avoidance and anxiety on perceived stigma, internalized homonegativity and sexual orientation concealment, controlling for the effect of proximal and distal minority stressors. One hundred and twenty-one people who self-identified as lesbian or gay and were involved in a romantic relationship when completing the questionnaire participated in the research.

After controlling for the effect of distal and proximal minority stressors, data support a positive relationship between attachment anxiety and internalized homonegativity, and between attachment avoidance and sexual orientation concealment. However, the latter regression model was not significant. Finally, no significant relationship emerged between adult attachment and perceived stigma.
The results are at least in part in line with the scarce literature on the topic. Further studies are needed to further support and extend the data emerging in the present study, in order to inform interventions aimed at promoting the well-being of LGBTQIA+ people.

**Keywords:** adult attachment; minority stress; perceived stigma; internalized homonegativity; sexual orientation concealment; LGBTQIA+

**RESUMEN**

Apego adulto y estrés de minoría en lesbianas y gays en Italia. Como se ha demostrado ampliamente, el estrés de las minorías afecta negativamente al bienestar de las personas LGBTQIA+. Recientemente, la literatura ha indagado en los factores psicológicos que pueden explicar las diferencias individuales en los niveles de estresores de minorías experimentados. En particular, algunos estudios se han centrado en el papel del apego adulto, aunque parecen necesarios más estudios para comprender su impacto en los estresores proximales de las minorías.

A través de tres modelos de regresión múltiple, la presente investigación analizó el impacto de la evitación del apego adulto y la ansiedad sobre el estigma percibido, la homonegatividad internalizada y la ocultación de la orientación sexual, controlando el efecto de los estresores proximales y distales de las minorías. Participaron en la investigación 121 personas que se autoidentificaban como lesbianas o gais y que mantenían una relación romántica en el momento de rellenar el cuestionario.

Tras controlar el efecto de los estresores de minorías distales y proximales, los datos apoyan una relación positiva entre la ansiedad de apego y la homonegatividad internalizada, y entre la evitación del apego y la ocultación de la orientación sexual. Sin embargo, este último modelo de regresión no resultó significativo. Por último, no surgió ninguna relación significativa entre el apego adulto y el estigma percibido.

Los resultados concuerdan, al menos en parte, con la escasa literatura sobre el tema. Se necesitan más estudios para apoyar y ampliar los datos que surgen en el presente estudio, con el fin de informar las intervenciones destinadas a promover el bienestar de las personas LGBTQIA+.

**Palabras clave:** apego adulto; estrés de minoría; estigma percibido; homonegatividad internalizada; ocultación de la orientación sexual; LGBTQIA+

**INTRODUCTION**

Minority stress (Meyes, 1995; 2003) refers to the stress that individuals belonging to a sexual minority are subjected to because they are part of a minority group: lesbian and gay (LG) people experience both distal (i.e. experiences of discrimination), and proximal minority stressors (i.e. perceived stigma, internalized homonegativity, and sexual orientation concealment).

As widely confirmed in many studies and meta-analyses in the last decades (Baiocco et al., 2021; Durrbaum et al., 2020; de Lange et al., 2022; Nguyen & Pepping, 2022; Pachankis et al., 2020; Pellicane & Ciesla, 2022; Pepping et al., 2019; Pistella et al., 2023), minority stress affects LG people’s wellbeing both directly and indirectly through its influence on general psychological processes (Hatzenbuehler, 2009; Mann et al., 2022; Szymanski et al., 2014). Accordingly, the minority stress model has long provided an important framework for policies’ development and initiatives intended to improve this population’s health and fight prejudice.

More recently, the literature has been interrogating factors that may modulate the experienced levels of minority stress and explain the observed individual differences. Specifically, some studies have focused on the role of adult attachment.

Adult attachment refers to the symmetrical and reciprocal bonding between intimate partners, which promotes closeness and emotion regulation during times of distress and frustration (Hazan and Shaver, 1987). Adult attachment functioning is primarily assessed along two dimensions: Attachment avoidance, which is defined by deactivation of the attachment system, discomfort with proximity, and dread of intimacy, and attachment anxiety, which is characterized by hyperactivation of the attachment system, fear of abandonment, and separation anxiety (Mikulincer and Shaver, 2005).
According to the Integrated Attachment and Sexual Minority Stress Model (Cook & Calebs, 2016), adult attachment and minority stress can affect each other, negatively impacting the individual’s and the couple’s well-being. Consistently, some studies identify a relationship between adult attachment and proximal minority stressors. In particular, anxious attachment appears related to internalized homonegativity (Calvo et al., 2020; Keleher et al., 2010; Tognasso et al., 2022) and perceived stigma (Zakalik & Wei, 2006) among gay and lesbian people. Avoidant attachment also appears to be associated directly or indirectly with levels of internalized homonegativity (Keleher et al., 2010; Calvo et al., 2020), while no conclusive data emerge on its influence on perceived stigma. Furthermore, to what we know, there are no studies assessing the association between adult attachment and levels of sexual orientation concealment, although the negative representations of self and others typical of individuals with insecure attachment might suggest a positive relationship between the two variables. However, the literature on the association between adult attachment and minority stress is still scarce, and few studies have evaluated this relationship by controlling for the effect of proximal and distal stressors included in the minority stress model. More research is necessary to clarify the preliminary results that have emerged.

OBJECTIVES

The current research aims to analyze the impact of adult attachment on perceived stigma, internalized homonegativity, and concealment of sexual orientation, controlling for the effect of distal and proximal minority stressors. Results can inform services and interventions aimed at promoting well-being in the LGBTQIA+ population.

HYPOTHESES

Our 3 hypotheses were: attachment anxiety and avoidance are associated positively to internalized homonegativity (first hypothesis), perceived stigma (second hypothesis), and sexual orientation concealment (third hypothesis).

MATERIALS AND METHODS

Participants

One hundred and twenty-one subjects were selected according to two inclusion criteria: 1) self-identification as lesbian or gay; 2) currently in a same-sex intimate relationship. Participants’ ages ranged from 20 to 76 years (M = 33.74; SD = 11.5). Forty-five participants (37.8%) identified themselves as women, 72 (60.5%) as men, and two (1.7%) as trans/gender non-conforming. The sociodemographic characteristics of the sample are displayed in Table 1.
### Table 1. Characteristics of the sample

<table>
<thead>
<tr>
<th>Category</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Woman</td>
<td>45</td>
<td>37.8</td>
</tr>
<tr>
<td>Man</td>
<td>72</td>
<td>60.5</td>
</tr>
<tr>
<td>Trans/Gender non-conforming</td>
<td>2</td>
<td>1.7</td>
</tr>
<tr>
<td><strong>Sexual Orientation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lesbian</td>
<td>47</td>
<td>38.8</td>
</tr>
<tr>
<td>Gay</td>
<td>74</td>
<td>61.2</td>
</tr>
<tr>
<td><strong>Educational level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle school diploma or less</td>
<td>4</td>
<td>3.3</td>
</tr>
<tr>
<td>High school diploma</td>
<td>41</td>
<td>33.9</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>40</td>
<td>33.1</td>
</tr>
<tr>
<td>Master’s degree or higher</td>
<td>36</td>
<td>29.7</td>
</tr>
<tr>
<td><strong>Employment status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
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<td>2.5</td>
</tr>
<tr>
<td>Freelancer</td>
<td>20</td>
<td>16.5</td>
</tr>
<tr>
<td>Employee</td>
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<td>40.5</td>
</tr>
<tr>
<td>Student</td>
<td>44</td>
<td>36.4</td>
</tr>
<tr>
<td>Homemaker</td>
<td>2</td>
<td>1.7</td>
</tr>
<tr>
<td>Retired</td>
<td>3</td>
<td>2.5</td>
</tr>
<tr>
<td><strong>Economic satisfaction</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unstable</td>
<td>13</td>
<td>10.8</td>
</tr>
<tr>
<td>Sufficient</td>
<td>65</td>
<td>54.2</td>
</tr>
<tr>
<td>Wealthy or higher</td>
<td>42</td>
<td>35</td>
</tr>
</tbody>
</table>

Note: N = 121. *2 missing values. *I missing value.
INSTRUMENTS

Minority Stress Scale (MSS; Norcini Pala et al., 2017). The Expectations of Discrimination subscale, the Enacted Stigma subscale, and the Sexual Orientation Concealment subscales of the Minority Stress Scale were used to assess perceived stigma, experiences of discrimination, and levels of sexual orientation concealment, respectively. In the first two subscales, participants expressed their degree of agreement with the statements reported on a 5-step Likert scale (from totally disagree (1) to totally agree (5)). In the Sexual Orientation Concealment subscale, participants indicated with whom they talked about their sexual orientation (e.g., family, friends) and the answer scale was dichotomous (yes/no).

Measure of Internalized Sexual Stigma (MISS; Lingiardi et al., 2012). It was used to measure levels of internalized homonegativity in the participants. On a 5-point Likert scale (from 1 - totally disagree - to 5 - totally agree) participants rated their agreement with the statements given.

Experience in Close Relationship Scale-12 (ECR-12; Brugnara et al., 2019). We used the Italian version of the ECR-12 to assess adult attachment on two dimensions: avoidance and anxiety. It has 12 items rated on a Likert scale from 1 (completely in agreement) to 7 (completely in disagreement).

PROCEDURE

The procedure of the study adheres to both the 1964 Declaration of Helsinki and the APA's code of ethics. The questionnaires used for data collection were all validated in Italian, and the online methodology has been used. The data collection started from July 2021 to April 2022 and the LimeSurvey Platform has been used. Recruitment took place via an invitation that participants received by email, which contained an information sheet about the research and a link to the LimeSurvey platform. Before to start the questionnaire, participants were requested to fill an informed consent form. It took approximately fifteen minutes to complete the anonymous questionnaire. The study has been approved by the Bioethical Committee of the University of Turin (Prot. n° 0429348).

DATA ANALYSIS

Statistical Package for the Social Sciences has been used to analyse the data (SPSS 28.0). The variables used in this research were computed as frequencies, means, and standard deviations. Pearson's correlation (r) was used to test the relationship between variables, and the results were interpreted according to Cohen's (1988) conventions. Three hierarchical multiple regression models have been tested to explore the association between adult attachment and minority stress.

RESULTS

Bivariate correlations are shown in Table 2. There are no differences between lesbian and gay participants were found on measures of minority stress and adult attachment.

Table 2. Bivariate correlations between variables in the study

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Internalized homonegativity</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Experiences of discrimination</td>
<td>.08</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Perceived stigma</td>
<td>.46**</td>
<td>.42**</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Sexual orientation concealment</td>
<td>.04</td>
<td>.25**</td>
<td>.12</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>5. Avoidance</td>
<td>.27**</td>
<td>.12</td>
<td>.24**</td>
<td>.09</td>
<td>-</td>
</tr>
<tr>
<td>6. Anxiety</td>
<td>.48**</td>
<td>.15</td>
<td>.35**</td>
<td>.12</td>
<td>.24*</td>
</tr>
</tbody>
</table>

Note: ** p < 0.01; * p < 0.05.
Our hypotheses have been tested using three hierarchical multiple regression models. In the first model perceived stigma was the dependent variable. In the first step, as independent variables, were entered internalized homonegativity, experiences of discrimination, internalized homonegativity, and sexual orientation concealment, while in the second step were entered attachment avoidance and anxiety. The first model was significant (F(3, 101): 18.10; p<.001), explaining 33% of variance in perceived stigma. In particular, experiences of discrimination (β: 0.33; p <.001) and internalized homonegativity (β: 0.44; p <.001) were positively associated to perceived stigma, while sexual orientation concealment was not (β: -0.05; p .532). The second model was significant (F(5, 99): 10.91; p<.001) and explained 32.3% of variance in perceived stigma. However, including attachment avoidance and anxiety did not result in a significant change in explained variance of perceived stigma (F(2, 99): 0.43; p .650). Specifically, experiences of discrimination (β: 0.32; p <.001) and internalized homonegativity (β: 0.39; p <.001) remained significantly and positively associated to perceived stigma, while sexual orientation concealment (β: -.05; p: 0.52) and attachment anxiety (β: 0.08; p: .407) and avoidance (β: 0.03; p: 0.744) were not.

In the second hierarchical regression model, internalized homonegativity was the dependent variable. In the first step of the regression analysis, we considered only the minority stress variables, specifically the perceived stigma, sexual orientation concealment and experiences of discrimination, while in the second step we added the attachment variables. The first model was significant (F(3,101): 10.96; p <.001) and explained 22% of variance in internalized homonegativity. In particular, perceived stigma (β: 0.51; p <.001) was positively associated to internalized homonegativity, while experiences of discrimination (β: -.04; p: .677) and sexual orientation concealment (β: 0.03; p: .717) were not. The second model was significant (F(5, 99): 12.61; p <.001) and explained 36% of variance in internalized homonegativity. The inclusion of attachment avoidance and anxiety significantly explained an additional 14% of variance in internalized homonegativity (F(2, 99): 11.62; p <.001). Specifically, perceived stigma (β: 0.37; p <.001) and attachment anxiety (β: 0.36; p <.001) were significantly and positively associated to internalized homonegativity, while experiences of discrimination (β: 0.08; p: .360), sexual orientation concealment (β: 0.01; p: .891) and attachment avoidance (β: 0.13; p: .137) were not.

In the third hierarchical regression model, sexual orientation concealment was the dependent variable. Internalized homonegativity, experiences of discrimination and perceived stigma were entered as independent variables in the first step, while in the second step we added attachment anxiety and avoidance. The first model was not significant (F(3, 133): 1.79; p: .152) and explained 1.7% of the variance in sexual orientation concealment. No variables appeared associated to sexual orientation concealment in the first step. Also the second model was not significant (F(5, 131): 1.98; p: .066) and explained 3.5% of variance in sexual orientation concealment. The addition of the attachment variables did not significantly increase explained variance in sexual orientation concealment (F(2,99): 0.484; p: .395) and only attachment avoidance was positively associated to sexual orientation concealment (β: 0.18; p: .045).

**DISCUSSION**

Through three hierarchical regression models, the present study evaluated the influence of attachment avoidance and anxiety on proximal minority stressors, specifically perceived stigma, internalized homonegativity, and concealment of one's sexual orientation, controlling for the effect of both proximal and distal minority stressors.

The first model with perceived stigma as dependent variable was significant. However, adult attachment did not explain an additional amount of variance in perceived stigma over and above proximal and distal minority stressors, and neither attachment avoidance nor attachment anxiety were associated to perceived stigma. In contrast, internalized homonegativity and experiences of discrimination were positively associated to perceived stigma, in accordance with the minority stress model (Meyer, 1995; 2003). While our results are at odds with some of the limited literature on this topic, in particular regarding the role of attachment anxiety, future studies should clarify the influence of adult attachment on perceived stigma controlling for the concurrent effect of the other proximal and distal minority stressors included in the minority stress model.
The second model with internalized homonegativity as dependent variable was significant, and adult attachment increased the explained variance of internalized homonegativity of 14% over and above experiences of perceived stigma, discrimination, and sexual orientation concealment. Specifically, a positive and significant association emerged between attachment anxiety and internalized homonegativity. In this regard, subjects with higher levels of anxiety tend to develop a negative self-representation, which can increase the risk to internalize negative beliefs and affect about one’s own sexual identity, which are consistent with this negative representation (Tognasso et al., 2022). In addition, attachment anxiety is related to attachment system hyperactivation, which results in greater access of negative affect that may explain the higher levels of internalized homonegativity observed in such individuals. In contrast, attachment avoidance was not associated to internalized homonegativity. Considering the minority stressors, only perceived stigma was significantly associated to internalized homonegativity.

The third model with sexual orientation concealment as dependent variable has led to some interesting results, since, while the regression model was not significant and explained only a very low percentage of variance, attachment avoidance was significantly and negatively associated to sexual orientation concealment, according to attachment theory. In particular, subjects with high levels of attachment avoidance, despite their apparent and defensive positive representation of self, seem to conceal a strong fear of rejection which, in order to be avoided, can lead to hiding parts of oneself such as one's sexual orientation. Considering the scarce literature in this field, future studies are needed to clarify the influence of attachment avoidance in predicting sexual orientation concealment.

LIMITATIONS AND FUTURE DIRECTIONS
This study has some limitations: a) there are limitations related to the low sample size; b) we only included participants who self-identified as gay or lesbian, while other sexual identities were not involved in the present study; c) our convenience sample drawn from the general population limits the generalizability of our results; d) the cross-sectional design does not allow conclusions to be established about the causal directions of the relationships hypothesized here.

Future studies should include larger sample size, paying attention to other sexual minorities (e.g., trans, gender non-conforming, non-binary people) as well as to the intersection of multiple stigmatized identities (e.g., ethnic and sexual minorities) in influencing adult attachment, minority stress, and their relationship. Longitudinal and national representative studies are needed as well.

CONCLUSIONS
Attachment anxiety and avoidance can influence the ability of people belonging to a sexual minority to build a positive self-representation, and this, in turn, can impact the availability of useful resources to cope with distal and proximal minority stressors. Accordingly, the present study highlights the independent and cumulative effect of attachment anxiety on internalized homonegativity, also controlling for the effect of minority stressors. Although adult attachment did not predict other forms of proximal minority stressors in the current sample, our findings provide data that can inform interventions addressed to LGBTQIA+ people. In this context, attachment-informed interventions can have a role in developing more positive self-representation and promoting wellbeing among gay and lesbian people struggling with experiences of minority stress. Furthermore, interventions and initiatives aimed at raising awareness on LGBTQIA+-related issues and prevent and contrast sexual discrimination seem necessary to promote mental health within this population (see for example, the Erasmus+ project co-founded by the European Commission, titled: INSIGHT – Establish an Inclusive LGBTI Health Care Provision: Make a stand against stigma, discrimination, and inequalities. n.2021-1-IT02-KA220-HED-000030196). Future studies will have to confirm these results and further deepen our understanding of psychological functioning which can influence individual differences in minority stress levels.
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