

Andreia Alexandra Gil Manão Alves Ribeiro

SOCIAL SAFENESS AND SELF-COMPASSION ON THE RELATIONSHIP BETWEEN SHAME AND DEPRESSION AMONG SEXUAL MINORITIES:

A MODERATED-MEDIATION

Dissertação no âmbito do Mestrado em Psicologia Clínica e da Saúde, Subárea de Especialização em Intervenções Cognitivo-Comportamentais nas Perturbações Psicológicas da Saúde orientada pela Professora Doutora Maria do Céu Teixeira Salvador e coorientada pelo doutorando Daniel Seabra Ferreira e apresentada à Faculdade de Psicologia e de Ciências da Educação da Universidade de Coimbra

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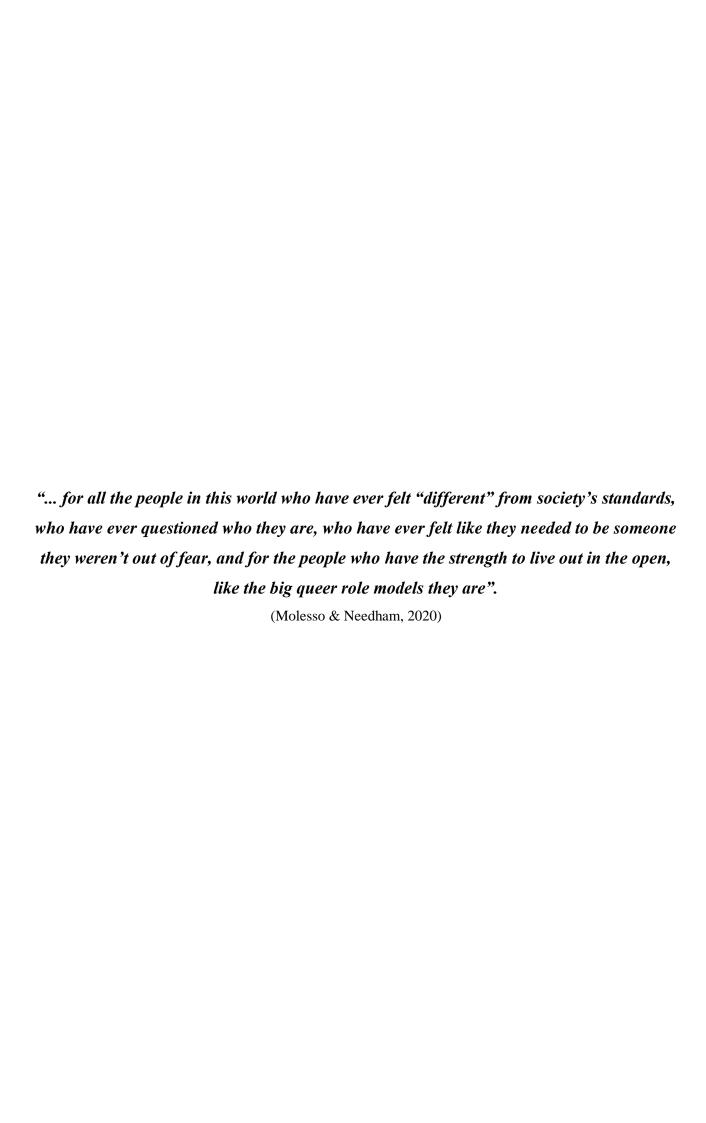
Statement of integrity.

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Institutional framework.

The present dissertation was developed within the strategic project of the Center for Research in Neuropsychology and Cognitive-Behavioral Intervention (CINEICC) (SFRH/BD/143437/2019) ("Mental Health and Well-Being in Lesbian, Gay and Bisexual (LGB) People: Conceptual Model and Compassion-Based Intervention").





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Segurança e conexão social e autocompaixão na relação entre vergonha e depressão em minorias sexuais: modelo de mediação moderada

RESUMO

Introdução: A vergonha tem sido associada à psicopatologia, nomeadamente, à depressão. Devido à cultura heteronormativa, as minorias sexuais enfrentam desafios diários que podem provocar vergonha. A segurança e conexão social e a autocompaixão surgem como fatores protetores da depressão. Este artigo procurou validar a *Escala de Vergonha Externa e Interna para Minorias Sexuais* (EVEI-MS, Estudo 1) e testar uma mediação moderada para explorar o papel mediador da segurança e conexão social na relação entre vergonha devido à orientação sexual e depressão e o papel moderador da autocompaixão nessa mediação (Estudo 2).

Método: Os dois estudos incluíram 512 participantes não-heterossexuais (n_{estudo1}=200, n_{estudo2}=312).

Resultados: A EVEI-MS apresentou bons índices de ajustamento e confiabilidade. A vergonha devido à orientação sexual encontrou-se positivamente correlacionada com a depressão e negativamente correlacionada com a segurança e conexão social e com a autocompaixão. A autocompaixão revelou-se um moderador significativo na relação entre vergonha devido à orientação sexual e a depressão, atenuando este efeito. A segurança e conexão social teve um papel mediador na relação entre a vergonha devido à orientação sexual e a depressão tanto em níveis altos (mediação total) como médios (mediação parcial) de autocompaixão; este efeito não foi significativo em níveis baixos de autocompaixão.

Conclusão: A EVEI-MS demonstrou ser um instrumento confiável e útil. A segurança e conexão social e a autocompaixão foram confirmados como fatores protetores no desenvolvimento de depressão em minorias sexuais.

Palavras-Chave: minorias sexuais; vergonha; autocompaixão; segurança e conexão social; depressão.

Social safeness and self-compassion in the relationship between shame and depression in sexual minorities: A moderated-mediation model

ABSTRACT

Introduction: Shame has been associated with psychopathology, namely, depression. Due to the heteronormative culture, sexual minorities face daily challenges that may trigger shame. Social safeness and self-compassion emerged as protective processes of depression. This paper aimed to validate the *Sexual Minorities External and Internal Shame Scale* (SM-EISS, Study one) and to test a moderated mediation to explore the mediating role of social safeness in the association between shame due to sexual orientation and depression, and the moderating role of self-compassion in this mediation

Method: The two studies comprised 512 non-heterosexual individuals (n_{study1}=200, n_{study2}=312).

(Study two).

Results: The SM-EISS presented good fit indexes and reliability, shame due to sexual orientation was positively correlated with depression and negatively with social safeness and self-compassion. Self-compassion was a significant moderator in the relationship between shame due to sexual orientation and depression, buffering this effect. Social safeness had a mediating role in the relationship between shame due to sexual orientation and depression but only in high (total mediation) and medium (partial mediation) levels of self-compassion.

Conclusion: The SM-EISS proved to be a reliable and useful instrument. Social safeness and self-compassion have been confirmed as protective factors in the development of depression in sexual minority individuals.

Keywords: sexual minorities; shame; self-compassion; social safeness; depression.

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INTRODUCTION

The human being needs to be connected to other humans to survive. The possibility of something causing damage to their reputations could lead to rejection by the group (Landers et al., 2021). Shame is a human self-consciousness and socially-focused emotion that consists of a perception that the self does not meet the quality imposed by oneself or others. According to the Evolutionary and Biopsychosocial Model of Shame (Gilbert, 2010), shame emerges as an evolutionary strategy against social threats (Landers et al., 2021), keeping the self safe from rejection and exclusion and triggering responses such as self-monitoring, self-blame, and submission (Gilbert, 2007). Shame can be recognized as external and internal (Gilbert, 1998). The first consists of viewing oneself as existing negatively in the minds of others (e.g., having failures or flaws exposed) and the second consists of how one judges oneself negatively (e.g., being a failure or flawed). Internal shame may appear through an internalizing response to external shame, ie., to fix the image another person has about oneself (Gilbert, 2007). Evidence suggests that early shame experiences may have traumatic characteristics, become central in self-identity, and increase vulnerability to shame feelings (external and internal shame) and psychopathology (Matos et al., 2017; Matos & Pinto-Gouveia, 2010). More specifically, a recent meta-analytic review revealed that shame is strongly associated with depression (DeCou et al., 2021).

Non-heterosexual individuals face unique experiences due to belonging to a minority group that diverges from societal patterns of heteronormative culture. Thereby, considering the social-based minority stress theory (Meyer, 2003), people who self-identify with another sexual identity than the one valued in the dominant social paradigm experience several chronic stressors in a continuum of distal to proximal. Distal stressors are prejudice-related events, external and objective (e.g., discrimination and violence), and proximal stressors are internal and subjective events (e.g., perceived stigma, concealment and internalized stigma). Proximal stressors result from stigma-related social bias through internalized cognitive processes (Meyer, 2020). Due to the heteronormative culture, sexual minority individuals are more likely to be exposed to potentially traumatic events, and, consequently, these events are associated with greater levels of shame (Scheer et al., 2020). Recent research reported that this population has more early traumatic experiences of shame (Matos et al., 2017; Seabra et al., 2021a) and higher levels of shame (Santos, 2021) compared to heterosexual peers. Minority stressors may explain this result given their well-known association with a higher risk of poor mental and physical health (Finlay-Jones et al., 2021; Flentje et al., 2019). Furthermore, several studies showed that sexual minority individuals have a higher risk of developing symptoms of depression (Alibudbud, 2021; Chan et al., 2020; Sommantico & Parrello, 2021; Vigna et al., 2018).

Two protection factors against shame and depression are social safeness (Matos et al., 2015) and self-compassion (Steindl et al., 2021). Social safeness is a type of positive affect resulting from experiencing feelings of belonging, acceptance, warmth and care from others (Gilbert et al., 2008; Gilbert, 2020; Kelly et al., 2012). When someone feels this social emotion, they do not need to defend or to compete to achieve resources (Gilbert, 2020). Another protective factor is compassion. According to Depue & Morrone-Strupinsky (2005), happiness comes from nurturing a compassionate and mindful mind that is neither seeking nor competing. Compassion is "a sensitivity to the suffering of self or others, with a deep commitment to try to relieve it (Dalai Lama, 1995). Three flows of compassion can be described: Compassion flowing out from the self to others, compassion flowing into the self from other, and compassion for oneself (Gilbert, 2010). Also, self-compassion implies being open to one's own suffering (neither avoiding/disconnecting from it) to relieve this suffering (Neff, 2003). This self-to-self attitude focuses on positive memories about the self and implies reassurance and tolerance when facing vulnerability and fragility (Gilbert et. al, 2004).

Research on sexual minority individuals, indicates that social safeness and self-compassion are also protective factors against shame and psychopathology. Petrocchi et al. (2019) showed that social safeness negatively correlates with attributes of negative psychological functioning. Furthermore, according to a recent meta-analysis of sexual and gender minority individuals (Carvalho & Guiomar, 2022), higher levels of self-compassion were associated with lower levels of depression and with positive psychological outcomes. Additionally, the relationship between homophobic discrimination and depression is partially explained by feelings of shame, and self-compassion may have a buffer role in this relationship (Seabra et al., 2021b).

Current study

To the best of our knowledge, there is no measure to assess shame due to sexual orientation and the interaction between social safeness and self-compassion is little explored in sexual minorities. This study is composed of two studies. Study 1 aimed to adapt and validate a *Sexual Minorities External and Internal Shame Scale* (SM-EISS). The following aspects were explored: construct validity (factorial, convergent and discriminant validities) and reliability (internal consistency, composite and individual). The hypotheses of the present study were: good fit indexes of a second-order two-factor model (total score, external and internal shame) of the SM-EISS (H1); significant, positive and moderate correlations of the SM-EISS with the general shame measure, proximal stress minorities processes (stigma sensitivity, concealment motivation, and identity dissatisfaction), and psychopathology symptoms (H2); correlations between shame due to sexual orientation with minority

stress processes significantly higher than correlations of general shame with the same minority stress processes (H3); SM-EISS presenting a good discrimination validity between individuals with high and low levels of minority stress processes (H4); and good reliability indexes of the SM-EISS (H5). Furthermore, Study 2 aimed to explore the mediation effect of social safeness in the association between shame due to sexual orientation and depressive symptoms, and the moderated effect of self-compassion on this mediation, in a sample of sexual minority individuals (Figure 1). We hypothesised: significant, negative and moderate correlations of shame due to sexual orientation and depression with social safeness and self-compassion (H6); a buffer effect of self-compassion in every path of the mediation (H7); social safeness as a significant mediator on the association between shame due to sexual orientation and depressive symptoms in all levels of self-compassion (H8).

STUDY 1

MATERIALS AND METHODS

Participants

The SM-EISS was tested in a sample comprised of 200 Portuguese adults who self-defined as non-heterosexual. The sample characteristics are described in Table 1. Participants had a mean of 27.8 years old (SD = 8.9) and 14.9 (SD = 2.7) years of education. No significant gender differences were found in years of education ($H_{(2)} = 4.62$, p = .099); however significant gender differences were found in age, with male individuals being older than female (U = 2182.50, p < .001) and non-binary (U = 530, p = .006) individuals.

Measures

Demographics Overview: A demographic overview questionnaire was used to assess sociodemographic characteristics (age, gender, gender identity, sexual characteristics, sexual orientation, region of residence, area of residence, significant relationship/s, work status, having children and having psychological treatment). According to the American Psychological Association guidelines, gender-related variables always included options "Other" and "Prefer not to say" (APA, 2020).

The *External and Internal Shame Scale* (EISS; Ferreira et al., 2020), is an 8-item self-report questionnaire aimed to assess *General Shame* (total score) distributed in two factors: *External Shame* (e.g., "Other people see me as not being up to their standards") and *Internal Shame* (e.g., "I am unworthy as a person"). Each item is rated on a 5-point Likert scale, ranging from *Never* (0) to *Always* (4). Higher scores suggest higher levels of shame. EISS presented Cronbach's alphas between .80 and .89 in the original Portuguese study and between .83 and .91 in this study.

The Lesbian, Gay, and Bisexual Identity Scale (LGBIS; Mohr & Fassinger, 2000; Oliveira et al., 2012) is a 28-item self-report inventory assessing the multidimensional identity of sexual minorities. The LGBIS is composed of 7 factors: *Identity Dissatisfaction* (F1; 6 items; e.g., "I wish I were heterosexual"), Identity Uncertainty (F2; 4 items; e.g., "I can't decide whether I am bisexual or homosexual"), Concealment Motivation (F3; 4 items; e.g., "I keep careful control over who knows about my same-sex romantic relationships"), Difficult Process (F4; 4 items; e.g., "Admitting to myself that I'm a LGB person has been a very slow process"), *Identity Centrality* (F5; 4 items; e.g., "My sexual orientation is a significant part of who I am"), Stigma Sensitivity (F6; 3 items; e.g., "Being an LGB person makes me feel insecure around straight people"), and *Identity Superiority* (F7; 3 items; e.g., "Straight people have boring lives compared with LGB people"). The Cronbach's alphas ranged from .76 to .89. in the original version, between .62 and .83 in the Portuguese version. In this study, only three factors were used (F1, F3 and F6) since they represent the proximal minority stressors (F1 represents internalized stigma, F3 represents concealment, and F6 represents perceived stigma). Each item is rated on a 7-point Likert scale, ranging from *Totally disagree* (1) to *Totally agree* (7). Higher levels of F1 indicate a higher negative evaluation of sexual orientation and reflect higher levels of internalized stigma (Martin & Dean, 1992). Higher levels of F3 suggest a higher motivation to keep sexual orientation private. Higher levels of F6 suggest that individuals anticipate more rejection based on sexual orientation (Cramer & et al., 2017). Cronbach's alphas of these three factors in this study ranged between .84 and .88.

The *Depression Anxiety and Stress Scale* – 21 Items (DASS-21; Lovibond & Lovibond, 1995; Pais-Ribeiro et al., 2004) is a 21-item self-reported scale that aims to assess psychopathological symptoms. It measures three main areas: *Depression* (e.g., "I could see nothing in the future to be hopeful about"), *Anxiety* (e.g., "I was aware of the action of my heart in the absence of physical exertion") and *Stress* ("I found it difficult to relax"), and each one composed by 7 items. Respondents are asked to report their experience of those symptoms over the previous week on a 4-point response scale ranging from *Did not apply to me at all* (0) to *Applied to me very much or most of the time* (3). Cronbach's alphas ranged from .84 to .91 in the original version, from .74 to .85 in the Portuguese version. In the present study, only the variable *Depression* was used, having presented a Cronbach alpha of .91.

Procedure

Data for the present cross-sectional study were collected between December 2021 and January 2022. The recruitment was performed on social media (Facebook, Instagram, Websites and Newsletter of Organizations that work with LGBTQIA+ individuals) and through the snowball technique. The present study is part of a larger research project focused on mental health in people of sexual minorities, which was approved by the Ethics Committee of the Faculty of Psychology and Educational Sciences of the University of Coimbra. The online survey containing the free and informed consent, sociodemographic questions and the measures reported above was created through the LimeSurvey@ within-host institution's server. Details about the specific objectives of the study, the eligibility criteria, and the voluntary nature of participation were provided to participants. Furthermore, confidentiality and anonymity of the data were guaranteed. Inclusion criteria were: to self-identify as belonging to a sexual minority, being over 18 years old and fully completing the questionnaires. There was no financial compensation for the participants. Concerning the Sexual Minorities External and Internal Shame Scale (SM-EISS), all participants completed the 8-item experimental version after permission for use and adaptation was obtained from the authors of the original version (EISS). To achieve the aim of this study, the EISS was adapted to assess specific shame related with own non-heterosexuality (e.g., I'm isolated. became I feel isolated due to my sexual orientation).

Data analyses

Data were analysed in the IBM SPSS, Version 25 (IBM, 2017) and IBM AMOS, Version 25 (Arbuckle, 2017). The normality of data distribution was examined using Skewness (Sk) and Kurtosis (Ku), where |Sk| < 3 and |Ku| < 8, did not represent severe deviations from normality (Kline, 2016). The outliers were analysed through the Boxplot (Rousseeuw & Hubert, 2011). Non-parametric tests were used considering a small sample in some groups. Therefore, a non-parametric analysis of variance (Kruskal-Wallis H) was used to verify the existence of gender differences in the variables Age and Years of education. Post-Hoc two-way analyses were made through Mann Whitney (U). To analyse the psychometric properties of the SM-EISS a Confirmatory Factor Analysis (CFA) was performed, and reliability (internal consistency, composite and individual), convergent and discriminant validities were explored. Similarly to the original version, the estimation method used was the Maximum Likelihood (ML), and the tested model was a second-order two-factor model (two factors and total score). The fit indices ascertained were Chi-Square (χ 2), Normed Chi-Square (NCS or χ 2/df), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Goodness of Fit Index (GFI) and Root Mean Square Error of Approximation (RMSEA). Chi-Square (χ 2) should be nonsignificant, although this index is rarely considered reliable when the sample size is large (van de Schoot et al., 2012). Values of NCS should be between 2 and 3 (see Hooper et al., 2008). For comparative (CFI and TLI) and absolute (GFI) fit indexes values above .90 should reflect a good fit (Marôco, 2014; Schumacker & Lomax, 2016). For RMSEA, values bellow to .10 were considered acceptable (Hair et al., 2019). For convergent validity, Pearson's correlation coefficients were interpreted according to Dancey and Reidy (2020): correlation coefficients below .30 represent a weak association, between .30 and .70 a moderate, and above .70 a strong association. In discriminant validity, differences in *Shame* depending on low and high levels of different factors of LGBIS (obtained through means and standard deviations scores of this sample: High group above mean plus one standard deviation and low group below mean less one standard deviation) were examined through independent sample t tests. To examine the effect sizes of specific mean differences the Cohen's d was used (.20 = small effect, .50 = medium effect) and .80 = large effect; Cohen, 1988). Internal consistency was assessed through Cronbach's alpha. According to George and Mallery (2019) values below .50 are considered unacceptable, from .70 to .80 are considered as sufficient for the reliability of the scores, from .80 to .90 shows good internal consistency and .90 or above an excellent internal consistency. For composite reliability, values above .70 are appropriate (Marôco, 2014), and for individual reliability values above .25 are considered fit (Marôco, 2014).

RESULTS

Preliminary results

No severe violations of normality were found (|Sk| < 2 and |Ku| < 4) in any variable. Some moderated outliers were found in *Anxiety*, total score and *Internal Shame due to sexual orientation* and *Identity Dissatisfaction*. We decided not to eliminate the outliers to keep the natural variance (Osburn, 2008), ensuring ecological validity.

Construct Validity

Confirmatory Factor Analysis (CFA). A CFA was conducted to confirm the second-order two-factor model, according to the procedure made in the original version. This model did not adequately fit the subsample (RMSEA = .10). The modification indices indicated several correlations between errors. The first suggested modification was tested to improve the model fit: correlation between 4 and 7 item' errors (both for the second factor). With this refinement, the model presented a good fit index. All regression weights were significant, and all loadings (standardized regression weights) were above .66. Although chi-square was significant (χ 2 = 45.78, p < .001), NCS presented a good value (2.55), as well as CFI, TLI, GFI and RMSEA (CFI = .96; TLI = .94; GFI = .95; RMSEA = .09). Figure 2 presents the CFA model.

Convergent Validity. First, it was important to test the correlations with the original EISS, on one hand, to confirm the association of the new specific shame measure with a general shame measure (no association would imply totally different constructs); on the other hand, to assess the relevance of having a specific scale to measure shame in this particular population (a too high association would imply that both measures were assessing the same construct, and therefore there would be no need for a specific measure). Second, we decided to test correlations with the LGBIS because the factors of this scale used in this study represent the proximal minority stressors, characteristic of this population, and were therefore expected to be positive and significantly correlate with the new measure. Third, it was important to test correlations with DASS-21, since studies show that shame is strongly associated to psychopathology in sexual minorities (e.g., Mereish & Poteat, 2015).

All correlations were positive and significant. Correlations of total score of *Shame*, *External* and *Internal Shame* of SM-EISS with the correspondent total and factors of the EISS were all moderate. Considering the correlations of the SM-EISS with the LGBIS factors, all correlations were moderate, except *External Shame due to sexual orientation* with *Identity*

Dissatisfaction (F1) and with Concealment Motivation (F3). All correlations of the SM-EISS total score and factors with the DASS-21 factors were moderate.

When comparing the correlations between the factors and total score of the EISS and the factors and total score of the SM-EISS with the LGBIS factors, only the correlation of *Internal Shame due to sexual orientation* and LGBIS F1 (*Identity Dissatisfaction*, that is meant to represent internalized stigma) was significantly higher than the correlation between *Internal Shame* and the same LGBIS factor (z = 3.07, p = .002). All means and correlations are presented in Table 2.

Of Proximal Stressors. Individuals with high levels of *Identity Dissatisfaction* (F1), *Concealment Motivation* (F3), and *Stigma sensitivity* (F6) were compared with individuals with low levels of the same variables in Total, *External* and *Internal Shame due to sexual orientation* (*cf.* Table 3). Results have shown that individuals with high levels of LGBIS factors had higher levels of total, external and internal shame when compared to individuals with low levels of the same variables (medium effect size). The only non-significant comparison emerged in the comparison of low and high F1 scores in *External Shame due to sexual orientation*.

Reliability

Internal Consistency, Composite and Individual Reliability. The total score showed an excellent internal consistency (α = .91), and the two factors showed good internal consistency (α = .84 and α = .83, for External Shame and Internal Shame, respectively). The mean and standard deviation of each item, item-total correlation and alpha if the item was deleted can be found in Table 4. No item, when removed, improved the scale's alpha value. Item-total correlations ranged between .64 and .69 in External Shame, and between .60 and .73 in Internal Shame. Considering the composite reliability, the values obtained were appropriate (.90, .84 and .78 for the total score, External Shame and Internal Shame, respectively). Finally, the values of individual reliability were all above .45, which revealed a good fit. The total score showed a strong correlation with External Shame (r = .92) and Internal Shame (r = .88). The factors showed a moderate intercorrelation (r = .62), showing that although these factors are related, they are measuring different constructs. In sum, all indexes of reliability showed good values.

STUDY 2

MATERIALS AND METHODS

Participants

In this cross-sectional study, the sample comprised 312 participants who self-defined as non-heterosexual. The sample characteristics are also described in Table 1. Participants had a mean age of 26.1 years old (SD = 8.3) and 14.5 (SD = 2.6) years of education. In this study, male individuals had more years of education than female (U = 7010.50, p = .056) and than non-binary (U = 1093.00, p = .04) individuals. Also, male individuals were older than female (U = 7021, p = .064) and non-binary individuals (U = 1067.50, p = .022).

Measures

Demographics Overview. Demographic variables were assessed using the same questionnaires used in Study 1.

The *Sexual Minorities - External and Internal Shame Scale* (SM-EISS) was the scale studied in the previous study. It is a 8-item self-report scale that aims to assess *External* (4 items; e.g., "Other people judge and criticize me because of my sexual orientation") and Internal (4 items; e.g., "I am critical of myself (I judge myself negatively because of my sexual orientation") Shame due to sexual orientation. Each item is rated on a 5-point Likert scale, ranging from Never (0) to Always (4). Higher scores suggest increased levels of Shame due to sexual orientation. In the original version, Cronbach's alphas were: $\alpha = .91$, and it was $\alpha = .84$ and $\alpha = .83$, for total score of Shame, External and Internal Shame, respectively. In this study, only the total score of the scale was used, revealing a Cronbach's alpha of .80.

The *Social Safeness and Pleasure Scale* (SSPS; Gilbert et al., 2009; Pinto-Gouveia et al., 2008) is a 11-item self-report instrument, that aims to assess the extent to which people feel a sense of warmth, safeness, and reassurance in their social domain (e.g., "I feel a sense of warmth in my relationships with people"). It uses a 5-point Likert scale from *Almost never* (1) to *Almost all the time* (4). Higher levels indicate more experiences self-evaluated as safe, warm and soothing. The scale revealed a Cronbach's alpha of .91 both in the original and Portuguese versions, and .94 in this study.

The *Forms of Self-Criticizing and Self-Reassuring Scale* (FSCRS; Gilbert et al., 2004; Castilho et al., 2015) is a 22-item self-report instrument that evaluates how people are self-critical and self-reassuring when something goes wrong. It has three factors: *Inadequate Self* (10 items; e.g., "I remember and dwell on my failings"), *Hated Self* (3 items; e.g., "I stop caring about myself") and *Reassured Self* (8 items; e.g., "I can feel lovable and acceptable"). Each item is rated on a 5-point Likert scale from *I'm nothing like that* (0) to *I'm extremally like that* (4). Higher scores represent more self-critical or self-reassuring attitudes. In the original version, Cronbach's alphas ranged between .86 and .90 and between .62 and .89 in the Portuguese version. In this sample, only the *Reassured Self* factor was used as a measure of *Self-Compassion*, having presented a Cronbach's alpha of .91.

The *Depression Anxiety and Stress Scale – 21* Items (DASS-21; Lovibond & Lovibond, 1995; Pais-Ribeiro et al., 2004) was described in Study 1. In this study, only the *Depression* factor was used, with a Cronbach alpha of .92.

Procedure

Concerning data collection, ethical issues and participant's inclusion criteria, the procedures were the same that Study 1. Both studies are part of the same larger research project.

Data analyses

Data were analysed in the IBM SPSS, Version 25 (IBM, 2017) and PROCESS MACRO for SPSS (Hayes, 2022 - Model 59). The normality of data distribution was examined using Skewness (Sk) and Kurtosis (Ku), where |Sk| < 3 and |Ku| < 8, did not represent severe deviations from normality (Kline, 2016). The outliers were analysed through the Boxplot (Rousseeuw & Hubert, 2011). Non-parametric tests were used considering a small sample in some groups. Therefore, non-parametric analysis of variance (Kruskal-Wallis H) was used to verify the existence of gender differences in the variables Age and Years of Education. Post-Hoc two-way analyses were made through Mann Whitney (U). For associations, Pearson's correlation coefficients were interpreted according to Dancey and Reidy (2020): correlation coefficients below .30 represent a weak association, between .30 and .69 a moderate, and above .70 a strong association. A moderated mediation was conducted: Total Shame S

intervals (95% CI; Bias-Corrected and Accelerated Confidence Intervals) were calculated. The conditional indirect effect was considered significant if the value of zero was not within the range of the Cis. Estimates of conditional effects at the 16th (low), 50th (medium), and 84th (high) percentiles of the moderator were generated.

RESULTS

Preliminary results

No severe violations of normality were found (|Sk| < 2 and |Ku| < 3) in any variable. Some moderated outliers were found in total score, *External* and *Internal Shame due to sexual orientation* and in *Identity Dissatisfaction*. We decided not to eliminate the outliers to keep the natural variance (Osburn, 2008), ensuring ecological validity. The correlations between sociodemographic and study variables did not reveal significant correlations.

Correlations between the study variables

All associations were significant. *Depression* was moderate and positively correlated with the total score of *Shame due to sexual orientation* (r = .42, p < 0.01), and moderate and negatively correlated with *Social Safeness* (r = -.52, p < 0.01) and *Self-Compassion* (r = -.56, p < 0.01). Negative and moderate correlations were found between total score of *Shame due to sexual orientation* with positive variables (*Social Safeness* and *Self-Compassion*). Table 5 presents all *Pearson* correlations.

The moderated mediation: Indirect effects of Social Safeness in the association between total Shame due to sexual orientation and Depression symptoms, with Self-Compassion as moderator. The moderating effect of Self-Compassion in all paths of the mediation of Social Safeness in the relationship between Shame and Depression was explored (cf. Figure 1). Model 1 represents the prediction of Social Safeness and Model 2 represents the prediction of Depression (Table 6).

Considering the regressions, *Shame* predicted *Social Safeness* and *Depression*. *Social Safeness* also predicted *Depression*. *Self-Compassion* moderated the relationship between *Shame* and *Depression* at low and medium levels (Figure 3). Concerning the slopes, the relationship between *Shame* and *Depression* was stronger in sexual minorities with low levels of *Self-Compassion*. In other words, *Self-Compassion* operated as a buffer between *Shame due to sexual orientation* and *Depression*. That is, for the same levels of *Shame*, sexual minorities with lower levels of *Self-Compassion*, had higher levels of *Depression*.

In the moderated mediation, significant indirect effects were found in medium and high levels of the moderator, and direct effects were kept significant in low and medium levels of the moderator. In sum, in low levels of *Self-Compassion* there was no mediation effect of *Social Safeness* (and the direct effect was significant), for medium and high levels of *Self-Compassion* there was a mediating effect of *Social Safeness*, and this was a total mediation in high levels of *Self-Compassion*. The coefficient, *Se*, [95 CI], conditional indirect and direct effect was presented in Table 6.

GENERAL DISCUSSION

The present paper had two studies. To our knowledge, there were no specific scales of shame related to sexual orientation and this is one of the phenomena that most affects sexual minorities. Therefore, the first study aimed to adapt a shame scale to reflect shame related to sexual orientation, and to study its psychometric properties. Once in possession of a specific shame measure, the goal of study two was to investigate the mediating role of *Social Safeness* in the association between *Shame due to sexual orientation* and *Depressive symptoms* and whether these associations in all paths of the mediation would differ in different levels of *Self-Compassion*.

Thus, study 1 tested the factor structure and the psychometric properties of the *Sexual Minorites External and Internal Shame Scale* (SM-EISS) in a sample of Portuguese sexual minority individuals. The Confirmatory Factor Analysis demonstrated an excellent overall fit and confirmed the original second-order two-factor model of the *External and Internal Shame Scale* (EISS), corroborating H1. The total score refers to feelings of *Shame due to sexual orientation* with two factors. The first factor - *External Shame due to sexual orientation* - represents the assumption that the self is negatively perceived by others due to their sexual orientation. The second factor - *Internal Shame due to sexual orientation* - is related to perceiving the self as inadequate and defective due to their sexual orientation (i.e., at their own eyes). These results are aligned with the theoretical framework of shame (Gilbert, 1998, 2010), distinguishing *External* and *Internal Shame* also in sexual minority individuals.

Our second hypothesis (significant, positive and moderate correlations between *Shame due to sexual orientation* and *General Shame*, stress processes and psychopathology) was partially confirmed. The total and factors of the SM-EISS presented a significant, positive and moderate association with the total and factors of the EISS (*General Shame*) and with psychopathology (anxiety, depression and stress). Considering the association of the total score and factors of the SM-EISS with proximal stress processes (assessed by the LGBIS), the associations of *External Shame due to sexual orientation* with *Identity dissatisfaction* and with *Concealment motivation* were low (instead of

moderate, as hypothesized). The highest association with *Identity dissatisfaction* was with *Internal* shame due to sexual orientation. On one hand, these results highlight that levels of internal stigma (self-direction of negative social attitudes) are more associated with the internalization of negative judgments related to sexual orientation, and that the creation of a sense of self around those judgments seems to lead to self-devaluation and internal conflict. The Minority Stress Theory (Meyer, 2003) proposes that internal stigma is a process of internalization of social stigma, and sexual minorities evaluate themselves accordingly to this homonegativity (Ünsal & Bozo, 2022). That is, seeing the self as inadequate and defective due to sexual orientation can occur through the internalization of social negative attitudes. On the other hand, a high motivation to keep sexual orientation private (Concealment Motivation) presented a low association with thinking they exist negatively in other people's minds (External Shame), being more associated with the negative image and beliefs one has about one's own orientation (Internal Shame). Our hypothesis for this result is that External Shame due to sexual orientation and Internal Shame due to sexual orientation are interdependent. That is, the two types of shame co-exist and depend on each other. For example, if individuals believe to be defective due to sexual orientation, they may also believe that other people see them as defective due to the same reason. Also, if a person thinks that they exist in the mind of others as defective due to their sexual orientation, they can also internalize that they are defective due to the same reason. In turn, the act of hiding sexual orientation is shameful for the person him/herself (Ünsal & Bozo, 2022), and may then increase External and Internal Shame. Given the novelty of these results, future studies specifically focused on External and Internal Shame due to sexual orientation and Concealment *Motivation* would be warranted.

As predicted in our third hypothesis, the associations between total and factors of the SM-EISS and stress processes were almost all higher than the associations between total and factors of the EISS and the same stress processes. The only exception was that the association between *External Shame* and *Identity Dissatisfaction* was higher than the association between *External Shame due to sexual orientation* and *Identity Dissatisfaction*. Despite this general direction of the results however, the only correlation difference that reached statistical significance was the association between *Internal Shame due to sexual orientation* and *Identity dissatisfaction*. Overall, the SM-EISS seems to be adapted to assess specific shame due to sexual orientation, namely, internalized stigma — a typical process in sexual minorities. Additionally, the SM-EISS revealed a good ability to discriminate between individuals with low and high levels of all proximal stress processes. That is, sexual minorities with higher levels of internalized stigma, more motivation for keeping sexual orientation private and that anticipate more rejection due to sexual orientation presented significantly higher levels of *Shame due to sexual orientation* (both external and internal) when compared with counterparts with low

internalized stigma, concealment motivation and perceived stigma. In face of these results, H4 was also corroborated.

Also, the SM-EISS showed good reliability, corroborating H5. The internal consistency of total and factors was good, the results of composite reliability showed that the values were appropriate and revealed a good fit and individual reliability.

Considering all the above-mentioned results, the SM-EISS seems to be valid and reliable for assessing *Shame due to sexual orientation* both in clinical and research contexts, representing a relevant addition to the existent measures.

The aim of Study 2 was to investigate the mediating role of *Social Safeness* in the association between Shame due to sexual orientation and Depression, and the moderating effect of Self-Compassion on this mediation. As predicted in our sixth hypothesis, associations between negative (Shame due to sexual orientation and Depression) and positive (Social Safeness and Self-Compassion) variables were significant, negative and moderate. These results are in line with previous research, that indicate that experiencing the self as socially unattractive due to sexual orientation and symptoms such as low mood and diminished pleasure had a negative association with experiencing the world as safe and warm in sexual minorities individuals (Farr et al., 2021; Seabra et al., 2022). Furthermore, experiencing the self as socially unattractive due to sexual orientation and symptoms including low mood and diminished pleasure also had a negative association with the willingness to be open to own suffering and to relieve suffering (Seabra et al., 2021b). According to Gilbert (2010) our brains contain different types of affect-regulation systems. The threat-system is motivated to detect dangers and to help take quick actions against threats, and it is associated with difficult emotions and processes (e.g., Shame and Depression). On the other hand, the soothing-system is associated with safeness and connectedness and related to positive emotions and processes (e.g., Serenity, Self-Compassion and Social Safeness). Finally, the drive-system motivates us to seek resources to survive (e.g., friends or status). Our affect-regulation systems co-exist and operate simultaneously, although when one system is more active the others are less active. Therefore, Self-Compassion and Social Safeness can help to down regulate the threat-system, stimulating the soothing-system and related emotions. Thus, the results of this study may partially reinforce this model of functioning also in sexual minorities.

Considering the moderated mediation, we hypothesized significant moderation in all paths of the mediation. This hypothesis (H7) was only partially confirmed. The results revealed that *Self-Compassion* only moderated the path between *Shame due to sexual orientation* and *Depressive symptoms*, and only at low and medium levels of *Self-Compassion* (Figure 3). That is, *Shame due to sexual orientation* is associated with an increase in symptoms of *Depression* and this positive association is mitigated by *Self-Compassion*. In fact, at high levels of *Self-Compassion*, even if levels

of shame increase, levels of *Depression* stay stable and low. This result, which reinforces the importance of developing *Self-Compassion* skills, is congruent with the theoretical framework of Compassion Focused therapy (CFT; Gilbert, 2010) and with recent studies that found that *Self-Compassion* may have a buffer role on *Depression*, both in a sample composed by sexual minorities (Seabra, 2021b) and in a general sample (Steindl et al., 2021). Also, *Self-Compassion* presented a positive association with psychological well-being, having a buffer effect on the relationship between stigma and well-being in sexual minorities (Chan et al., 2020).

Unexpectedly, Self-Compassion did not moderate the relationship between Shame due to sexual orientation and Social Safeness. One hypothesis for this result may be that Shame due to sexual orientation and Social Safeness are a social emotion and a social process (self-to-other), respectively, while Self-Compassion is an internal process (self-to-self) (Gilbert, 2010). Thus, the relationship between Shame due to sexual orientation and Social Safeness may be moderated by other social variables, for example, a sense of connection to the LGBTQIA+ community. Also, openness to receive compassion from others may be a possible moderator of this relationship, since individuals with high levels of shame can experience fears of receiving compassion, which may lead to negative affect, including Depression (Coelho et al., 2019). Furthermore, a meta-analysis (Kirby et al., 2019) has demonstrated that, in particular, fears of Self-Compassion and fears of receiving compassion from others tend to have greatest impact on psychological outcomes, such as Depression. Another unexpected result was that regardless the level of Self-Compassion, the impact of Social Safeness in Depression will not be altered. In other words, experiencing the social environment as unsafe will always impact on depression, regardless of being more or less self-compassionate. Again, maybe this relationship with more probably be buffered by being open to / and receiving compassion from others (namely, from the LGBT community) and not so much by Self-Compassion. Future studies would be valuable to clarify this hypothesis.

Regarding the moderated mediation, *Social Safeness* was a significant mediator in the association between *Shame due to sexual orientation* and *Depression* in medium and high levels of *Self-Compassion*, explaining 58% of the depression variability. This result partially corroborates H8, suggesting that, for sexual minorities, in higher levels of *Self-Compassion*, the association between feelings of *Shame due to sexual orientation* and *Depression symptoms* seems to happen through the lack of *Social Safeness*. In fact, results showed that when individuals from sexual minorities are highly compassionate with themselves, the relationship between feeling ashamed of their own's sexual orientation and *Depressive symptoms* happens through feelings of emotional insecurity from the social world (total mediation). In the study of Matos et al. (2015) the authors tested a mediator role of *Social Safeness* on the associations between shame traumatic memories and *Depressive symptoms*. The results

showed that *Social Safeness* partially mediated the relationship between centrality of shame memories and *Depression*. Furthermore, in low and medium levels of *Self-Compassion*, the association of *Shame due to sexual orientation* with *Depressive symptoms* seems to be more direct to the point that in low levels of *Self-Compassion* this relationship does not depend on levels of *Social Safeness* (there is no mediation).

Thus, on one hand, higher levels of *Self-Compassion* seem to operate as a buffer in the association between *Shame due to sexual orientation* and *Depression* in sexual minorities (the only moderation found). On the other hand, if sexual minority individuals have high levels of *Self-Compassion*, the relationship between *Shame due to sexual orientation* and *Depressive symptoms* seems to be completely due to the lack of *Social* Safeness (confirmed by the total mediation found). Taken together, these results highlight the positive role of *Self-Compassion* in sexual minorities (Carvalho & Guiomar, 2022).

This study has several limitations. First, because of its cross-sectional nature, only associations between variables and no causal effects can be established. Future longitudinal studies should explore how sexual minority individual's mental health will be impacted by these variables. A second limitation is related to the online recruiting. Participants of online recruitment are predominantly white, middle to upper class, and educated (Dillman et al., 2014), excluding people with difficulties in using the internet, usually, from other ethnicities and education levels. This way, the current sample is not representative considering intersectionality. In the same way, it is important to ensure a more balanced sample considering a larger spectrum of non-normative sexual orientations, allowing accurate generalizations of results. Future research should incorporate both qualitative and quantitative designs to offer a holistic and nuanced understanding of these variables.

Despite the limitations pointed out, these studies add on the literature on sexual minorities by providing, to the best of our knowledge, the first instrument to assess *Shame due to sexual orientation*, and by adding robustness and specificity to the research that associates shame and *Depression* in sexual minorities, and highlighting the role of *Self-Compassion* and *Social Safeness* as protective factors in this relationship.

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Declaration of interest statement

No conflict of interest to declare.

Founding

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Ethical approval statement

Research involving Human Participants. All procedures followed the Ethics and Deontology Commission of the Faculty of Psychology and Educational Sciences of the University of Coimbra (approved on November 2nd, 2019) and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

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APPENDIX

Table 1Participants' Sociodemographic Characteristics

Characteristics	Study 1	(n = 200)	Study 2	(n = 312)
Characteristics	n	%	n	%
Gender				
Woman	107	53.5%	175	56.1%
Man	62	31%	94	30.1%
Non-binary	27	13.5%	31	9.9%
Other	1	0.5%	6	1.9%
Preferred not to say	3	1.5%	6	1.9%
Gender Identity				
Cisgender	166	83%	258	82.7%
Transgender and Gender Nonconforming	26	13%	37	11.9%
Other	5	2.5%	12	3.8%
Preferred not to say	3	1.5%	5	1.6%
Intersex ^a	14	7%	17	5.9%
Sexual orientation				
Gay	57	28.5%	73	23.4%
Lesbian	55	27.5%	68	21.8%
Bisexual	55	27.5%	107	34.3%
Pansexual	21	10.5%	51	16.3%
Asexual	4	2%	3	1.0%
Other	7	3.5%	8	2.6%
Preferred not to say	1	0.5%	2	0.6%
Region of residence				
North	46	23%	83	26.6%
Centre	59	29.5%	96	30.8%
Lisbon and Tagus Valley	81	40.5%	105	33.7%
South	8	4%	16	5.1%
Islands (Madeira and Azores)	2	1%	10	3.2%
Area of residence				
Rural	47	23.5%	59	18.9%
Urban	153	76.5%	253	81.1%
In a relationship ^a	113	56.5%	165	52.9%
Work status				
Student	71	35.5%	133	42.6%
Student and worker	17	8.5%	38	12.2%
Full-time worker	87	43.5%	110	35.3%
Part-time worker	10	5%	10	3.2%
Unemployed	14	7%	19	6.1%
Retired	1	0.5%	2	0.6%
With Children ^a	5	2.5%	13	4.2%
Currently psychological treatment ^a	70	35%	115	36.9%

Note. ^a Reflects the number and percentage of participants answering "yes" to this question.

Table 2Correlations between study variables (Study 1, n = 200)

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. SM-EISS_T	0.8	0.7	1											
2. SM-EISS_VE	1	0.8	.92**	1										
3. SM-EISS_VI	0.5	0.7	.88**	.62**	1									
4. EISS_T	1.4	0.9	.61**	.56**	.53**	1								
5. EISS_VE	1.5	0.8	.61**	.59**	.50**	.95**	1							
6. EISS_VI	1.4	0.9	.55**	.48**	.52**	.96**	.83**	1						
7. LGBIS_F1	1.9	1.1	.40**	.23*	.51**	.25**	.25**	.24*	1					
8. LGBIS_F3	3.7	1.7	.29**	.20*	.33**	.21*	.19*	.21*	.37**	1				
9. LGBIS_F6	3.6	1.9	.58**	.52**	.52**	.52**	.51**	.48**	.32**	.39**	1			
10. DASS-21_DEP	1.1	0.8	.50**	.45**	.45**	.67**	.56**	.72**	.21*	.17*	.45**	1		
11. DASS-21_ANX	0.8	0.7	.39**	.36**	.34**	.58**	.52**	.59**	.13	.17*	.42**	.72**	1	
12. DASS-21_STR	1.3	0.7	.44**	.43**	.36**	.64**	.57**	.66**	.16*	.18*	.44**	.80**	.82**	1

Note. * *p* < .005; ** *p* < .001;

SM-EISS_T = Sexual Minority - External and Internal Shame Scale (Total score). SM-EISS_VE = External Shame factor of the SM-EISS. SM-EISS_VI = Internal Shame factor of the SM-EISS. EISS_T = External and Internal Shame Scale (Total score). EISS_VE = External Shame factor of the EISS. EISS_VI = Internal Shame factor of the EISS. LGBIS_F1 = Identity Dissatisfaction factor of the LGBIS. LGBIS_F3 = Concealment Motivation factor of the LGBIS. LGBIS_F6 = Stigma Sensitivity factor of the LGBIS. DASS-21_DEP = Depression factor of the DASS-21. DASS-21_ANX = Anxiety factor of the DASS-21. DASS-21_STR = Stress factor of the DASS-21.

 Table 3

 Differences in Shame related with sexual orientation as a Function of Proximal Stressors

		SMEISS_T				SMEISSS_VE					SMEISS_VI					
		M	DP	t ₍₃₁₀₎	p	d	М	DP	t ₍₃₁₀₎	p	d	М	DP	t ₍₃₁₀₎	p	d
F1: Identity	Low	.72	.52				1.02	.71				.41	.57			
dissatisfaction	High	.90	.61	2.64	.009	.58	1.05	.75	.36	.720		.75	.66	4.52	<.001	.72
F3: Concealment	Low	.64	.53				.92	.68				.35	.50			
motivation	High	.95	.61	4.83	< .001	.57	1.16	.74	3.05	.002	.59	.74	.68	5.61	<.001	.71
F6: Stigma	Low	.53	.45				.77	.60				.28	.41			
sensitivity	High	1.05	.60	8.64	< .001	.53	1.31	.74	7.00	<.001	.67	.80	.69	7.90	<.001	.56

Note: Significant effects in bold.

SM-EISS_T = Sexual Minority - External and Internal Shame Scale (Total score). SM-EISS_VE = External Shame factor of the SM-EISS. SM-EISS_VI = Internal Shame factor of the SM-EISS. F1 = Identity Dissatisfaction factor of LGBIS. F3 = Concealment Motivation factor of LGBIS. F6 = Stigma Sensitivity factor of LGBIS.

Table 4 $Descriptive \ statistics, \ item-total \ correlation \ and \ Cronbach's \ Alpha \ (Study \ 1, \ n=200)$

	M	SD	Item – total correlation	α if item deleted	Coefficien t α
F1: External Shame					.84
1	1	1	.69	.79	
3	1.3	1.1	.64	.81	
5	1.3	1.1	.69	.79	
6	0.5	0.8	.69	.79	
F2: Internal Shame					.83
2	0.8	1	.60	.82	
4	0.4	0.8	.73	.76	
7	0.2	0.6	.66	.79	
8	0.6	1	.68	.79	
Total Score of Shame					.91

Table 5Correlations between study variables (Study 2, n = 312)

Variable	1	2	3	4
1. SM-EISS_T	1			
2. DASS-21_DEP	. 42**	1		
3. SSPS_T	34**	52**	1	
4. FSCRS_RS	35**	56**	.56**	1

Note. * *p* < .05; *** *p* < .01; *** *p* < .001

SM-EISS_T = Sexual Minority - External and Internal Shame Scale (Total score). DASS-21_DEP = Depression factor of DASS-21. FSCRS_RS = Reassured Self factor (Self-Compassion) of Forms of Self-Criticizing/attacking and Self-reassuring Scale.

Table 6Testing the moderated mediation effect of Shame due to sexual orientation on Depression considering Self-Compassion as a moderator

			Total score	e of Shame				
Predictors		Model 1		Model 2				
	В	SE	95%CI	В	SE	95%CI		
Shame (S)	-0.30	.08	[-0.46; -0.13]	1.68	.47	[0.75; 2.61]		
Self-Compassion (SC)	0.53	.05	[0.42; 0.63]	-2.21	.36	[-2.88; -1.55]		
S x SC	-0.12	.08	[0.32; 0.63]	-1.70	.47	[-2.63; -0.77]		
Social Safeness (SS)				-1.63	.32	[-2.25; -1.00]		
SS x SC				31	.28	[-0.87; 0.25]		
\mathbb{R}^2	.58			.66				
F	52.4***			47.50***				
Conditional indirect effe	cts							
Low				.25	.17	[-0.03; 0.63]		
Medium				.47	.18	[0.16; 0.85]		
High				.84	.38	[0.16; 1.62]		
Conditional direct effect	S							
Low				3.20	.55	[2.11; 4.30]		
Medium				1.72	.47	[0.79; 2.65]		
High				19	.78	[-1.73; 1.35]		

Note: Significant effects in bold.

Figure 1Moderated mediation model

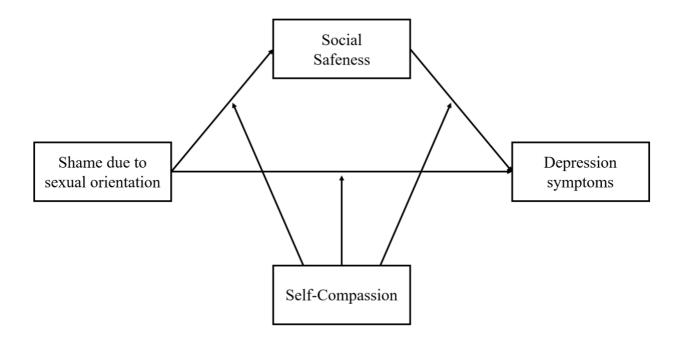
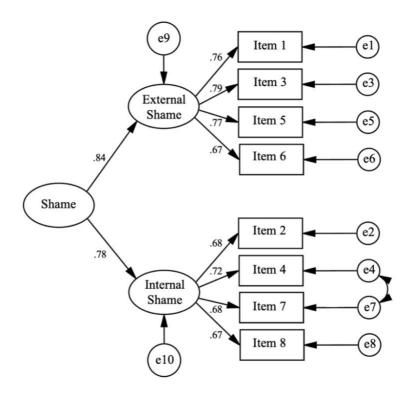


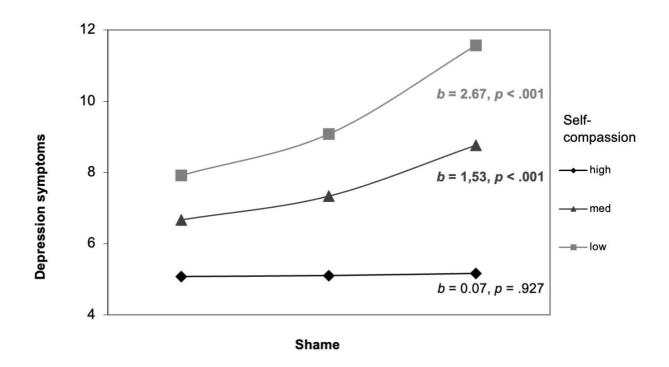
Figure 2Confirmatory Factor Analysis model of the *Sexual Minority - External and Internal Shame Scale* (SM-EISS).



Note: Factor loadings values are standardized and were significant at p < .001.

Figure 3

The moderating role of *Self-Compassion* in the association between *Shame due to sexual orientation* and *Depressive symptoms*



Note: Significant effects in bold.

- Table 1: Participants' Sociodemographic Characteristics
- Table 2: Correlations between study variables (Study 1, n = 200)
- Table 3: Differences in Shame related with sexual orientation as a Function of Proximal Stressors
- Table 4: Descriptive statistics, item-total correlation and Cronbach's Alpha (Study 1, n = 200)
- Table 5: Correlations between the study variables (Study 2, n = 312)
- Table 6: Testing the moderated mediation effect of Shame due to sexual orientation on Depression considering Self-Compassion as a moderator

- Figure 1: Moderated mediation model
- Figure 2: Confirmatory Factor Analysis model of the Sexual Minority External and Internal Shame Scale (SM-EISS). Factor loadings values are standardized and were significant at p < .001.
- Figure 3: Moderating role of Self-Compassion in the association between total score of Shame due to sexual orientation and Depressive symptoms. Significant effects at bold.