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Preliminary evidence of an affirmative mindfulness, acceptance, and compassion-based, non-randomized group intervention with follow-up for sexual minority individuals (*Free2Be*)

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Abstract

Sexual minority (SM) individuals present lower levels of mental health compared to their heterosexual peers. This study aimed to explore the preliminary evidence of a manualized 13-week, face-to-face affirmative group intervention for SM individuals based on mindfulness, acceptance, and compassion-focused techniques (*Free2Be*). In a single-armed trial design, nine participants received the intervention and were assessed in three moments (baseline, post-intervention, and three-month follow-up). Sexual minority-related stress processes, psychopathological symptoms, and general adaptive and maladaptive psychological processes were assessed. Group comparisons and individual reliable change index analyses were performed. Overall, the results were significant/reliable in the expected direction: an increase in general adaptive psychological processes and a decrease in sexual-minority-related stress processes, psychopathological symptoms, and general maladaptive psychological processes. These changes remained stable over time. Stigma consciousness, shame related to sexual orientation, and fears of self-compassion

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did not present any relevant change. Self-compassion increased in the post-intervention and decreased in the follow-up, presenting an unstable trajectory. Results suggested that the *Free2Be* is an intervention with benefits for sexual minority people.

Keywords: Affirmative intervention, sexual minority individuals, mindfulness, acceptance, self-compassion, effectiveness.

Evidência preliminar de uma intervenção em grupo afirmativa, baseada na atenção -plena, aceitação e compaixão, não aleatorizada e com seguimento para pessoas pertencentes a minorias sexuais (*Free2Be*)

Resumo

Pessoas pertencentes a minorias sexuais apresentam níveis mais baixos de saúde mental quando comparados com pares heterossexuais. O objetivo deste estudo foi explorar a evidência preliminar de uma intervenção afirmativa em grupo, presencial, com 13 semanas e manualizada para pessoas pertencentes a minorias sexuais, baseada em técnicas focadas na atenção-plena, aceitação e compaixão (*Free2Be*). Com um desenho de ensaio de um braço, nove participantes receberam a intervenção e foram avaliados/as em três momentos (pré-intervenção, pós-intervenção e 3 meses pós-intervenção). Foram avaliados processos de stress minoritário, sintomas psicopatológicos e processos psicológicos gerais adaptativos e mal-adaptativos. Foram realizadas análises de comparação entre grupos e índices de mudança fiável individuais. Em geral, os resultados foram significativos/fiáveis na direção esperada: um aumento nos processos psicológicos gerais adaptativos e uma diminuição nos processos de *stress* minoritário, sintomas psicopatológicos e processos psicológicos gerais mal-adaptativos. Estas mudanças mantiveram-se ao longo do tempo. A consciência de estigma, vergonha relacionada com a orientação sexual e medos da autocompaixão não apresentaram mudanças relevantes. A autocompaixão aumentou no pós-intervenção e diminuiu aos 3 meses de seguimento, apresentando uma trajetória instável. Os resultados sugerem que o *Free2Be* é uma intervenção com benefícios para pessoas pertencentes a minorias sexuais.

Palavras-chave: Intervenção afirmativa, pessoas pertencentes a minorias sexuais, atenção--plena, aceitação, autocompaixão, eficácia

INTRODUCTION

When Sexual Minority (SM) individuals are compared to their heterosexual counterparts, lower levels of mental health are observed (Wallace & Santacruz, 2017). Several theoretical frameworks have been proposed to explain this disparity, such as the Minority Stress Theory (Frost & Meyer, 2023; Meyer, 2003) and the Psychological Mediation Framework (Hatzenbuehler, 2009). According to the Minority Stress Theory, SM-related stress begins at an early age and has lifelong consequences (Pachankis et al., 2022). It stems from social stigma, resulting in internalized processes (e.g., stigma consciousness and internalized stigma; Frost & Meyer, 2023; Meyer, 2003) and personal coping reactions to these stressors (Meyer, 2003, 2020; Pachankis et al., 2022). Uncomfortable emotions are normal responses to SM-related stress (Pachankis et al., 2022, 2023), including shame (McDermott et al., 2008; Santos, 2021), anxiety, depression (Bostwick et al., 2014), and social anxiety (Mahon et al., 2021). Beyond the specific SM-related processes, and according to the Psychological Mediation Framework (Hatzenbuehler, 2009), general maladaptive psychological processes also contribute to the elevated risk of psychopathology among SM individuals, such as self-criticism (Nappa et al., 2022; Seabra, Carvalho, et al., 2024) and fears of compassion (Seabra, Gato, Petrocchi, & Salvador, 2023). Self-criticism corresponds to a self-to-self relationship marked by hostility, aversion, and/or contempt due to a self-perception of being a failure and/or inadequate (Gilbert & Irons, 2005; Gilbert & Procter, 2006). On the other hand, fears of compassion are related to the anticipation of negative compassion-related emotions (Gilbert & Mascaro, 2017); that is, fear of negative emotions or concern about what can happen when people wish to be compassionate (Irons & Beaumont, 2017).

When SM individuals try to access mental health care, they often encounter professionals without specific training on sexuality-related themes (Albuquerque et al., 2016; Pieri & Brilhante, 2022). Affirmative interventions go beyond simply avoiding sexual orientation change efforts (Moradi & Budge, 2018) and have a respectful perspective about non-heterosexual orientations, recognizing them as representations of human diversity (American Psychological Association, 2021). Instead of pathologization, the affirmative approach considers structural and interpersonal contexts, recognizing the negative effects of heterosexism and violence against these individuals and acknowledging them as additional stressors (Glassgold et al., 2009; Ramos, 2023).

Cognitive-Behavioural Therapy, aimed at fostering psychological processes such as mindfulness, acceptance, and self-compassion (Gilbert, 2010; Hayes, 2004; Kennedy & Pearson, 2020), is a therapeutic perspective that can address SM individuals'

specific needs (Carvalho et al., 2022). There is evidence of the positive impact of mindfulness (Iacono et al., 2022; Sun et al., 2021), acceptance (Fowler et al., 2022; Stitt, 2022), and self-compassion (Carvalho & Guiomar, 2022; Helminen et al., 2022) on SM individuals' mental health. The *Free2Be* is a 13-week, group intervention for SM individuals and is the first affirmative intervention that includes mindfulness, acceptance, and compassion techniques (Seabra, Gato et al., 2024) (Table 1). The feasibility results of this intervention were promising, suggesting that *Free2Be* is feasible (Seabra, Gato et al., 2024).

Table 1

Content and practices of modified and optimized Free2Be

Content	Practices and exercises
	Pre-session (80 minutes)
Introduction; Expectations, fears, and safety rules	Starting small with common humanity; Claiming your human birthrights
	Session 1 (120 minutes)
Human nature; Relation with suffering	Cockroach in food; Looking for something that cannot be evaluated; Focus on an object; Don't think about…
	Session 2 (120 minutes)
Emotional regulation; Multiple selves	Reflecting on my three systems; Identifying different selves; Soothing breathing rhythm
	Session 3 (120 minutes)
Creative hopelessness; Values	Chinese finger trap; How have these strategies worked for you?; Colourful circles
	Session 4 (120 minutes)
Compassionate attention	Mindful breathing; The beginners mind and resistance; Mindfulness in daily life
	Session 5 (120 minutes)
Compassionate acceptance	Eyes on; Training acceptance
	Session 6 (120 minutes)
Self-criticism; Compassion; Flows of compassion	What is self-criticism for?; The two teachers; How would I treat a friend?; Soothing touch
	Session 7 (120 minutes)
Compassionate imagination; Compassionate self	Creating an ideal compassionate image for the self; Safe place
	Session 8 (120 minutes)
Early experiences; Stigma and shame; Compassionate cognitive defusion	How did I get here?; Life contexts and mental rules; Thanking the mind
	Session 9 (120 minutes)
Compassionate thinking	The captain of the ship (directed to the criticized self and to the critical self); Flashcards
	Session 10 (120 minutes)
Difficult emotions: Shame and Anger	Distinguishing compassionate self-correction from shame-based self-criticism and attacking; Soften–soothe–allow for shame; Soothing touch and unmet needs
	Session 11 (120 minutes)
Coming out; Compassionate behaviour (assertiveness)	Coming out; Social sun; Passengers in the bus
	Session 12 (120 minutes)
Positive emotions; Preparing for the future	Just like me; Savouring; Gratitude for small things; Self-appreciation; Compassionate letter writing

This study aimed to assess the preliminary evidence of the optimized version of *Free2Be*. More specifically, it sought to analyse outcome changes from baseline to post-intervention and three-month follow-up. The hypotheses were: (H1) Significant/reliable increase in general adaptive psychological processes; and (2) Significant/reliable decrease was expected in psychopathological symptoms, SM-related stress, and general maladaptive psychological processes.

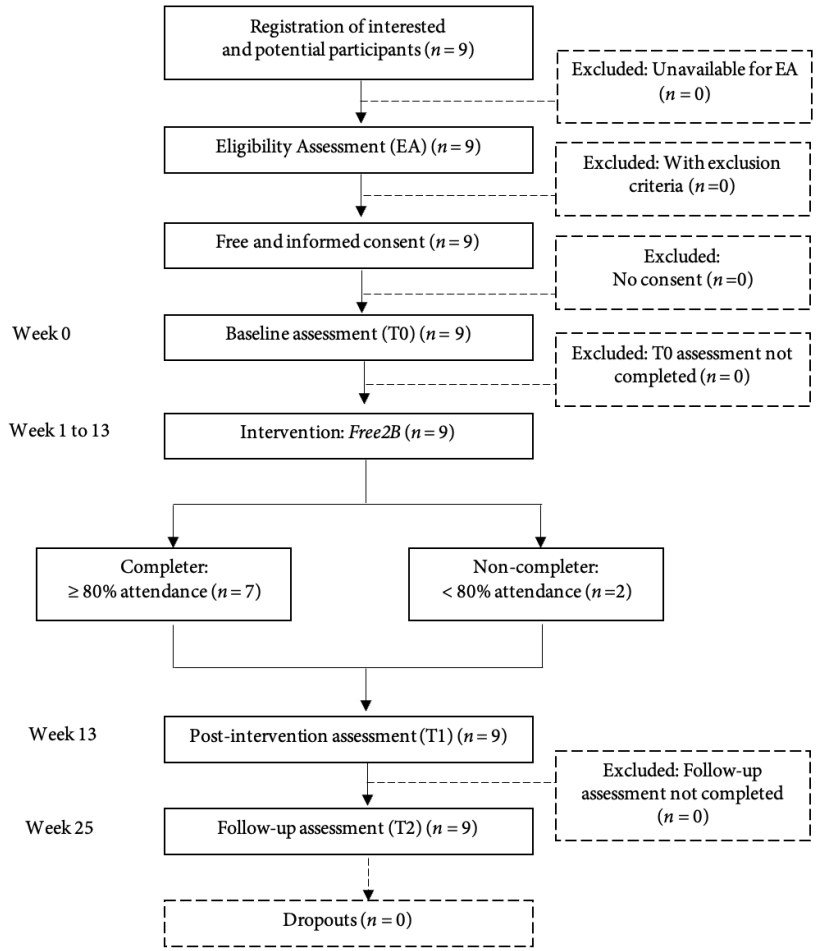
METHOD

Ethics, trial design, and participants

This study was approved by the Ethics Commission of the host institution and is aligned with the 1964 Declaration of Helsinki's ethical standards. It is a single-armed trial with assessments at baseline (T0), post-intervention (T1), and three-month follow-up (T2). The participants were nine self-identified SM individuals with a mean age of 23.7 years old (SD = 2.6). Participants were included if they: were 18 or older; perfectly understood oral and written Portuguese; gave informed and voluntary consent; and were not undergoing another psychological intervention. Additionally, they could not meet the criteria for *Major Depressive Disorder* (severe specifier), *Hypo/maniac Episode* (without full remission), and *Psychosis Characteristics* in the last two months. They could not have a social impairment from *Substance Use Disorder* or high suicide risk. All these criteria were assessed in an online eligibility assessment using several structured clinical diagnostic interviews and evaluator-report instruments: the *Clinical Interview for Bipolar Disorders* (CIBD; Azevedo et al., 2023), the Clinical Interview for Psychotic Disorders (CIPD; Martins et al., 2019), the references in the pocket guide to the DSM-5 diagnostic exam (Nussbaum, 2013), and the *Suicide Risk Index* (Veiga et al., 2014). When meeting exclusion criteria, individuals would be referred for healthcare services. All participants were assessed, received the intervention, and completed three assessment moments. Figure 1 details the diagram flow of participants.

Figure 1

Participants diagram flow



Recruitment, sample size, and ratios

The recruitment happened through advertising on social media and dissemination in the LGBTQIA+ Portuguese Psychology Services' newsletter. The sample size was determined a priori with G*Power 3.1 (Faul et al., 2007), considering the statistical analyses (non-parametric repeated comparisons) for detecting a medium effect size (0.25), with 80% of power (1– β) and with 0.05 significant alpha (α). The estimated sample was 28 participants. However, it was only possible to recruit participants to complete one group (nine participants). All participants received the intervention,

of which seven (78%) were completers (≥ 80% attendance), and two (22%) were non-completers (< 80% attendance), and none dropped out (dropout ratio = 0%).

Intervention

Free2Be is a manualized 13-week face-to-face group intervention for SM individuals with one pre-session and 12 intervention sessions led by a main therapist and a co-therapist. The therapeutic techniques used derive from Mindfulness-Based Interventions (Ivtzan, 2020; Kabat-Zinn, 1994), Acceptance and Commitment Therapy (Hayes et al., 1999, 2012), Compassion-Focused Therapy (Gilbert, 2010; Gilbert & Simos, 2022), and Mindful Self-Compassion (Germer & Neff, 2019; Neff & Germer, 2013). Additionally, it takes into consideration the Minority Stress Theory (Frost & Meyer, 2023; Meyer, 2003) and affirmative principles of psychological intervention (Pachankis et al., 2022, 2023). There are some affirmative interventions for this population based on mindfulness (e.g., *RadSec*, Zernerova et al., 2020) acceptance (e.g., *Word stress-ACT*; Singh et al., 2020), and self-compassion (e.g., *Compassion for Self-Identity*; Nguyen, 2021), but none of the interventions had an integrative approach of mindfulness, acceptance, and compassion principles altogether (cf. Seabra, 2024 for a review).

The pre-session includes the introduction of therapists and participants, a discussion of expectations, fears, and safety rules, and a group dynamic to promote social engagement between participants. Session 1 has a distinct structure compared to the other sessions, encompassing a comprehensive outline of all the contents of *Free2Be* and ensuring a common language. In this way, participants and therapists align in the use of terms related to psychological experiences and the underlying rationales. All subsequent sessions have the same structure: Welcoming; brief initial practice; discussion of the home practice; session-specific content 1; poem; break; soft landing; session-specific content 2; closing; and home practice (Table 1).

In this study, an optimized version of *Free2Be* was administered. The initial version (Seabra, Gato et al., 2024) had the same number of sessions and structure. Considering the acceptability results and the participants' feedback on the feasibility study, some changes were made: (1) the duration of sessions was reduced (from 135 to 120 minutes); (2) sessions 2, 3, 8 and 10 were reorganized and shortened; (3) an exercise of common humanity was added in the pre-session; (4) more moments in small groups were added; and (5) the instructions of the *Passengers in the bus* metaphor (session 11) were improved.

Measures

Eligibility criteria

The *Clinical Interview for Bipolar Disorders* (CIBD; Azevedo et al., 2023) is a comprehensive assessment and diagnostic tool for bipolar-related disorders. This semi-structured interview is based on DSM-V criteria and is also focused on functionality and interference of symptoms. In this study, only sections associated with the evaluation of major depressive disorder and hypo/maniac episodes were used.

The *Clinical Interview for Psychotic Disorders* (CIPD; Martins et al., 2019) is a comprehensive assessment and diagnostic tool for psychotic-related disorders. This semi-structured interview is based on DSM-V criteria and is also focused on functionality and interference of symptoms. In this study, only the section associated with evaluating psychosis characteristics was used.

The *Pocket Guide to the DSM-5-TR®* Diagnostic Exam (Nussbaum, 2013) is a practical clinician's complement for using DSM-5-TR in diagnostic interviews. In this study, only questions associated with social impairment from substance use disorder.

The *Suicide Risk Index* (Veiga et al., 2014) is a 12-item index with sociodemographic, contextual, and suicidal indicators developed for healthcare professionals in screening contexts. Includes three cut-offs for low, intermediate, and high-risk suicide.

Positive psychological processes

Mindfulness, assessed by the subscale Behavioural Awareness of the Comprehensive Assessment of Acceptance and Commitment Therapy Processes – 18 Items (CompACT-18) (Francis et al., 2016; Trindade et al., 2021). It has 5 items that assess mindful attention to the present moment, rated on a 7-point Likert scale from *strongly disagree* (0) to *strongly agree* (6), with higher mean scores indicating greater levels of mindfulness (α = .81).

Acceptance, assessed by the subscale Openness to Experience of the CompACT-18. It has 5 items that determine willingness to allow internal experiences without efforts to change them (α = .88).

Self-compassion, assessed by the Self-compassion scale of the Compassion Motivation and Action Scales (CMAS) (Steindl et al., 2021; Matos et al., 2023;). It has 18 items that assess the intention to be self-compassionate, to tolerate distress during one's own suffering, and behaviours to alleviate this suffering. Participants rate items using a 7-point Likert scale from *strongly disagree* (1) to *strongly agree* (7), with higher sum scores indicating greater levels of self-compassion (α = .91).

Psychopathological symptoms

Stress symptoms, assessed by the subscale Stress Symptoms of the Depression Anxiety and Stress Scales – 21 items (DASS-21) (Lovibond & Lovibond, 1995; Pais-Ribeiro et al., 2004). It has 7 items that assess difficulties in relaxing, nervous excitement, agitation, exaggerated reactions, and impatience. Items are rated on a 4-point Likert scale from *did not apply to me at all* (0) to *applied to me very much or most of the time* (3), with higher mean scores indicating greater levels of stress symptoms (α = .71).

Anxiety symptoms were assessed by the subscale Anxiety Symptoms of the DASS-21. It has 7 items that assess physical arousal symptoms, panic attacks, and fear (α = .85).

Depressive symptoms, assessed by the subscale Depressive symptoms of the DASS-21, with 7 items that assess symptoms usually associated with negative mood (α = .75).

Social anxiety symptoms, assessed by the Social Interaction Anxiety Scale (SIAS) (Mattick & Clarke, 1998; Pinto-Gouveia & Salvador, 2001), which includes 19 items that assess fears of general social interaction, rated on a 4-point Likert scale from *not at all characteristic or true of me* (0) to *extremely characteristic or true of me* (3). Higher mean scores indicate greater levels of social anxiety symptoms (α = .79).

Shame related to sexual orientation was assessed by the Sexual Minority External and Internal Shame Scale (Manão et al., 2024). It has 8 items that assess feelings of shame triggered by a non-heterosexual orientation. Participants rate items using a 5-point Likert scale from *never* (0) to *always* (4), with higher mean scores indicating greater levels of shame related to sexual orientation (α = .77).

Sexual minority-related stress processes

Stigma consciousness was assessed by the Stigma Consciousness Questionnaire (SCQ-PT) (Pinel, 1999; Seabra, Gato, Petrocchi, Carreiras, et al., 2023). It has 10 items that assess the extent to which SM individuals anticipate they will be stereotyped. Items are rated on a 5-point Likert scale from *strongly disagree* (1) to *strongly agree* (5), with higher mean scores indicating greater levels of stigma consciousness (α = .83).

Internalized stigma was assessed by the subscale Identity Dissatisfaction of the Lesbian, Gay, Bisexual Identity Scale (LGBIS) (Mohr & Kendra, 2011; Oliveira et al., 2012). It has 6 items that assess internalized stigma, rated on a 7-point Likert scale from *totally disagree* (1) to *totally agree* (7), with higher mean scores indicating greater levels of internalized stigma (α = .78)

Maladaptive psychological processes

Self-criticism was assessed by the composite measure that results from adding up the Inadequate Self and Hated Self factors of the Forms of Self-criticizing/ Attacking and Self-reassuring Scale (FSCRS) (Gilbert et al., 2004; Castilho et al., 2015;). It has 14 items that assess the experience of inadequacy and self-dislike when failures and setbacks occur. Participants rate items using a 5-point Likert scale from *not at all like me* (1) to *extremely like me* (5), with higher mean scores indicating greater levels of self-criticism (α = .82).

Fear of compassion was assessed by the Fears of Compassion Scales (FCS) (Gilbert et al., 2011; Simões, 2012), including three subscales (fears of giving compassion to others, 10 items; receiving compassion from others, 13 items; and giving compassion to the self, i.e., self-compassion, 15 items) which assess fears, blocks, and resistances to giving compassion to others, receiving compassion from others, and of giving compassion to the self, i.e., self-compassion. A 5-point Likert scale is used to rate the items, from *don't agree at all* (0) to *completely agree* (4), with higher mean scores indicating greater levels of fears of compassion (.77 < α < .86).

Statistical Methods

The descriptive statistics were reported through means and standard deviations. In group analyses, non-parametric tests were used considering the small sample size to reduce Type I error. To explore significant differences over time, we used Friedman's ANOVA for repeated measures (χ^2). Post-hoc comparisons were performed using the Wilcoxon signed-rank test for repeated measures (Z), even with the non-significant Friedman test (it is possible that different pairwise comparisons do not match exactly to the overall test). Differences from T0 to T1 and from T1 to T2 were calculated to analyse the evolution of outcomes (increase, stability, and decrease). In case of stability (any changes) in both analyses, additional differences were tested from T0 to T2 to explore whether significant changes were only detectable in a longer period. The effect size used was Rosental r ($r = \frac{z}{\sqrt{N}}$, where z corresponds to Wilcoxon score, and N corresponds to the size of the study/ number of observations) (Field, 2018), considering the classification of (Cohen, 1988): .1 small effect, .3 to .5 moderate effect, and >.5 strong effect (Cohen, 1988). In this study, there were 18 number of observations (9 participants x 2 times).

In individual analyses, the Reliable Change Index (RCI) was calculated assessing the changes in T1 – T0. $RCI = \frac{x_2 - x_1}{\sqrt{2(SD0\sqrt{1-\alpha})^2}}$, where x_2 represents the result of the individual at T1, x_1 represent the results of the individual at T0, *SD0* represents

the standard deviation of the variable in a normative sample, and α represents the internal consistency of the scale (Jacobson & Truax, 1991). RCI scores with a magnitude of 1.96 or greater regardless of direction represented a reliable change (Jacobson & Truax, 1991; Zahra & Hedge, 2010) at 95%, and participants were classified as "Improved" or "Deteriorated" considering these values (Parsons et al., 2009).

RESULTS

Group analyses

Friedman's ANOVA for repeated measures (three timepoints) and Wilcoxon signed-rank test for repeated measures were performed (Table 2 and Table 3). All positive psychological processes (mindfulness, acceptance, and self-compassion) significantly increased, with a strong effect in the post-intervention, and remained stable over time. In psychopathological symptoms, stress, anxiety, and social anxiety significantly decreased, with a strong impact in the post-intervention and remained stable over time. Shame related to sexual orientation and depressive symptoms did not reveal any significant difference. In SM-related stress processes, only internalized stigma presented substantial results: a moderate decrease at post-intervention that remained stable over time. Stigma consciousness revealed the same unchanged trajectory as shame and depression. Self-criticism also shown the same downward trajectory as stress, anxiety, and social anxiety. Fear of compassion for others revealed a moderated decrease only three months after the intervention, fear of compassion from others moderately decreased in the post-intervention. This decrease was maintained over time, and fear of self-compassion did not present any significant change. Figures 2-4 show, graphically, the evolution of the variables with significant changes

Table 2

Content and practices of modified and optimized Free2Be

Outcomes	T0 M (SD)	T1 M (SD)	T2 M (SD)	χ^2	Z	r
General Positive Psychological Processes						
Mindfulness	9.89 (5.04)	18.44 (4.56)	16.67 (4.92)	5.56	**T0 < T1***; T1 = T2	**.54**; .01
Acceptance	9.89 (4.14)	18.44 (4.67)	19.44 (5.85)	11.03	**T0 < T1****; T1 = T2	**.63**; .16
Self-comT1ssion	89.56 (10.92)	111.22 (8.12)	99.11 (8.78)	**14.00*****	**T0 < T1****; T1 = T2	**.50**; .43
Psychopathological symptoms						
Stress	11.56 (4.64)	7.44 (2.19)	7.78 (3.07)	4.29	**T0 > T1***; T1 = T2	**.57**; .12
Shame (sexual orientation)	1.11 (0.30)	1.01 (0.53)	1.04 (0.70)	2.80	T0 = T1; T1 = T2; T0 = T2	.18; .08; .21
Anxiety symptoms	8.89 (5.95)	5.22 (3.35)	3.78 (2.91)	**9.00***	**T0 > T1***; T1 = T2	**.50**; .40
Depression symptoms	5.11 (3.41)	3.56 (2.24)	4.00 (3.61)	0.80	T0 = T1; T1 = T2; T0 = T2	.34; .12; .14
Social anxiety symptoms	40.89 (9.37)	31.89 (7.52)	30.89 (7.46)	**6.59***	**T0 > T1***; T1 = T2	**.52**; .15
Sexual Minority-related Stress Processes						
Stigma consciousness	3.75 (0.48)	3.62 (0.51)	3.44 (0.63)	3.77	T0 = T1; T1 = T2; T0 = T2	.20; .38; .42
Internalized stigma	1.96 (1.03)	1.31 (0.61)	1.44 (0.71)	4.57	**T0 > T1***; T1 = T2	**.48**; .13
General Maladaptive Psychological Processes						
Self-criticism	1.50 (0.52)	0.97 (0.49)	0.97 (0.55)	4.22	**T0 > T1***; T1 = T2	**.54**; .04
Fear of compassion for others	15.33 (6.42)	11.00 (5.59)	8.89 (7.18)	5.64	T0 = T1; T1 = T2; **T0 > T2***	.38; .42; **.46**
Fear of compassion from others	21.67 (5.63)	15.78 (7.76)	15.44 (9.75)	4.22	**T0 > T1***; T1 = T2	**.48**; .07
Fears of self-compassion	11.89 (9.09)	6.67 (4.92)	8.89 (8.80)	.743	T0 = T1; T1 = T2; T0 = T2	.25; .17; .24

*Note. T0 – Baseline Assessment; T1 – Post-intervention Assessment; T2 – Follow-up Assessment; $\chi 2$ = Friedman's ANOVA for repeated-measures; Z = Wilcoxon signed-rank test for repeated-measures; r = Rosenthal's effect size; *p < .05; **p < .01; ***p < .001*

Table 3

Results of all comparison simplified

Outcome	Over time				
	Intervention		Post-intervention		
Stress symptoms	T0	↓ (strong)	T1	=	T2
Mindfulness	T0	↑ (strong)	T1	=	T2
Acceptance	T0	↑ (strong)	T1	=	T2
Self-compassion	T0	↑ (strong)	T1	=	T2
Stigma consciousness	T0	=	T1	=	T2
Internalized stigma	T0	↓ (moderate)	T1	=	T2
Shame (sexual orientation)	T0	=	T1	=	T2
Self-criticism	T0	↓ (strong)	T1	=	T2
Fear of compassion for others	T0	↓ (moderate)	T2		
Fear of compassion from others	T0	↓ (moderate)	T1	=	T2
Fear of self-compassion	T0	=	T1	=	T2
Anxiety symptoms	T0	↓ (strong)	T1	=	T2
Depression symptoms	T0	=	T1	=	T2
Social anxiety symptoms	T0	↓ (strong)	T1	=	T2

Figure 2

Graph of trajectory of positive psychological processes

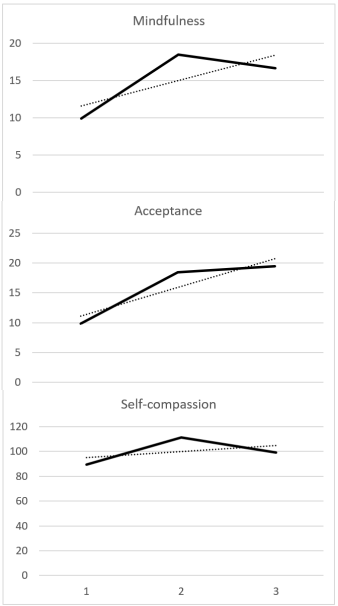


Figure 3

Graph of trajectory of psychopathology

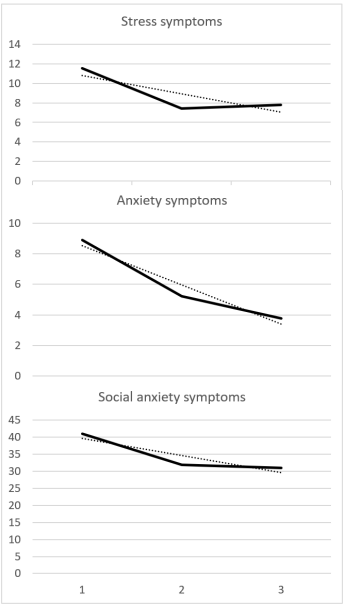
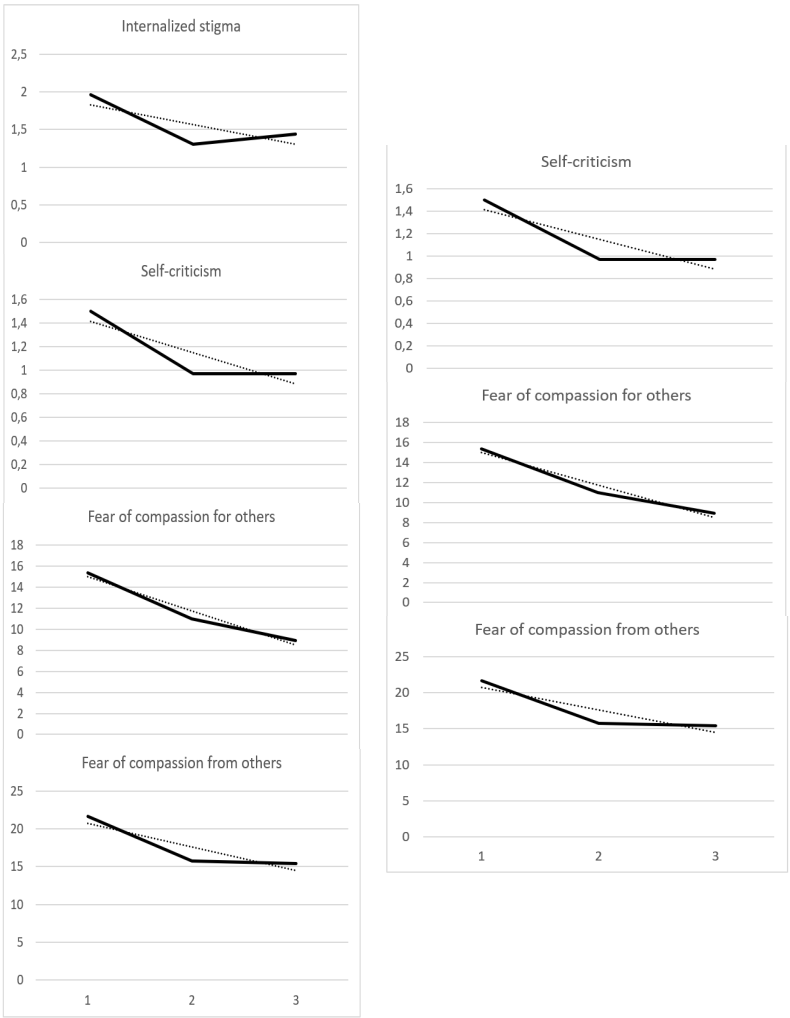


Figure 4

Graph of trajectory of sexual minority-related stress and maladaptive processes



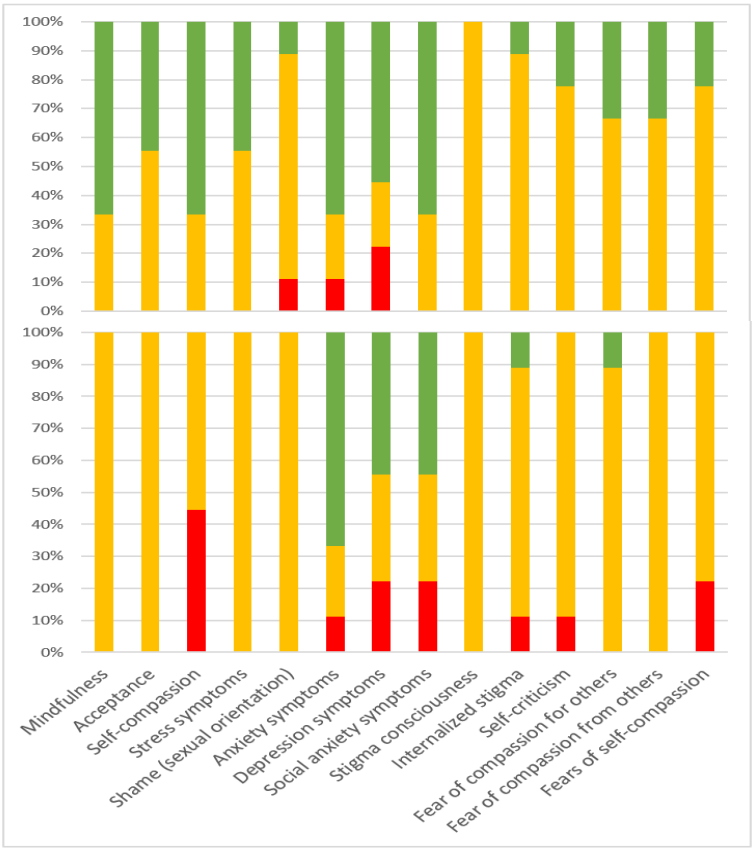
Individual analyses

RCI was performed to analyse changes from T0 to T1 and from T1 to T2. In general, the outcomes with a greater number of participants with reliable changes from T0 to T1 were (an improvement in) mindfulness and self-compassion, and (a deterioration in) anxiety, depressive and social anxiety symptoms (≥ 50%). Few participants showed a reliable decline in shame related to sexual orientation, anxi-

ety, and depressive symptoms (< 25%). In analyses from T1 to T2, the distinguished result was in self-compassion, with around 40% of participants reliably deteriorating. Psychopathological symptoms had the outcomes with a more reliable deterioration (from 40 to 70%, namely in anxiety symptoms) (Figure 5).

Figure 5

Changes on outcome measures from baseline to post-intervention (above) and from post-intervention to follow up (bellow) assessments (individual analyses).



Note. Green: Reliable improvement; Yellow: Unchanged; Red: Reliable Deterioration

DISCUSSION

Free2Be is a pioneering manualized affirmative group intervention designed specifically for SM individuals. It incorporates mindfulness, acceptance, and self-compassion. Having previously established its feasibility (Seabra, Gato et al., 2024),

the results of this study also suggest that *Free2Be* is a beneficial intervention with SM individuals.

Results showed that H1 was corroborated: there was a significant increase in mindfulness, acceptance, and self-compassion at post-intervention with stability over time. However, at follow-up, self-compassion scores reliably decreased for 40% of participants. Furthermore, H2 was partially corroborated: stress, anxiety, social anxiety, internalized stigma, self-criticism, and fears of compassion from others significantly decreased in the post-intervention and were stable over time. Although there were no significant differences, depression scores decreased reliably at post-intervention for more than 50% of participants. Fear of compassion for others also significantly decreased, but only at follow-up; while fears of compassion from others decreased in T1. Shame related to sexual orientation, stigma consciousness, and fear of self-compassion did not present relevant changes.

Despite the hypothesis that mindfulness, acceptance, and self-compassion would increase with *Free2B* intervention and be maintained over time, the results showed that self-compassion decreased at follow-up. The activation of the soothing system (one of the three affect regulation systems) requires continued training in compassion exercises and practices that activate the endorphin and oxytocin circuits (Depue & Morrone-Strupinsky, 2005). During the intervention, these exercises and practices were used in the sessions every week. We hypothesize that after the intervention, participants reduced these practices; and consequently, the levels of self-compassion decreased.

Surprisingly, not all fears of compassion followed the same trajectory: fears of self-compassion did not present a significant change, fears of compassion from others decreased in the post-intervention (T1), and fears of compassion for others only decreased at follow-up (T2). According to Compassion-Focused Therapy, although it is not linear, it is usually easier to reduce fears of compassion for others first, then reduce fears of compassion from others, and finally fears of self-compassion (Gilbert, 2010; 2022). However, our results showed a reduction in fears of compassion from others first (T1) and in fears of compassion for others after (T2). We hypothesize that the group effect contributed to reducing fears of compassion from others due to the common humanity and shared experiences. Several studies refer to the importance of a perceived sense of connectedness and a sense of belonging (cf. Garcia et al., 2019 for a scoping review). These positive effects of group compassion-based techniques align with the group coping factors in the Minority Stress Theory (Frost & Meyer, 2023; Meyer, 2003).

In general, the results underscore the clinical utility of mindfulness, acceptance, and self-compassion among SM individuals, aligning with other studies (Carvalho & Guiomar, 2022; Fowler et al., 2022; Helminen et al., 2022; Iacono et al., 2022;

Stitt, 2022; Sun et al., 2021). In fact, interventions based on these processes have been associated with improvements in psychopathology (Hofmann et al., 2010; Twohig & Levin, 2017; Wilson et al., 2019), and these results show that they could also be helpful in SM individuals.

Considering the unexpected outcome in shame related to sexual orientation (non-significant difference), we consider that this result is related to the measure used (the instrument assessed SM-related shame). A recent study (Seabra, Carvalho, et al., 2024) found that homophobic discrimination has an impact on feelings of non-specific/general shame. We hypothesized that *Free2Be* would positively influence the overall perception of self-shame (without impacting feelings of inadequacy and inferiority related to sexual orientation) and that its positive effect on SM-related processes would be evident only in the internalization of negative attitudes about SM status (internalized stigma).

Theoretically, stigma consciousness includes both beliefs about the perceptions of judgment based on sexual orientation and experiences related to interactions with people with a different sexual orientation (Pinel, 1999). Despite the experiences not being changeable, we hypothesized a possible decrease in stigma-related beliefs, but this hypothesis was not corroborated. Other compassion-based interventions for SM significantly reduced stigma consciousness (Nguyen, 2021), and self-compassion is a tool for coping with societal stigma (Iacono et al., 2022). The unchanged levels of stigma consciousness can be associated with the unstable trajectory of self-compassion.

There are limitations in this study that should be taken into consideration. The absence of a control group hinders the assumption that positive results are solely due to *Free2Be*. Additionally, the frequency of practices after the intervention was not assessed, making it difficult to understand the impact of the practices on trajectories of general positive processes. Future studies should include a control group and the assessment of the frequency of practices in the follow-up. Nonetheless, the preliminary data helps inform future pilot studies and RCTs.

Even though stress was the psychopathological symptom with the largest effect size, this variable is not SM-specific and, considering that SM individuals experience additional stress compared to heterosexual individuals, reducing stress symptoms should be a primary aim to consider in future studies. Additionally, SM-specific variables should be considered (e.g., internalized stigma) and other mechanisms of change (e.g., fears of compassion) should be included as secondary outcomes. A definitive RCT would be powered to explore these variables and investigate which mechanisms of change are involved in improvement and will aim for a bigger sample to allow generalization.

These results support the positive impact of the *Free2Be* reported in the feasibility study. Additionally, mindfulness, acceptance, and self-compassion appear to have a positive impact on SM individuals, suggesting that the *Free2Be* intervention could be a valuable option to improve the mental health of SM individuals in their specific contexts.

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REFERENCES

Albuquerque, G. A., Garcia, C. D. L., Quirino, G. D. S., Alves, M. J. H., Belém, J. M., Figueiredo, F. W., Paiva, L. D. S., Do Nascimento, V. B., Maciel, É. D. S., Valenti, V. E., De Abreu, L. C., & Adami, F. (2016). Access to health services by lesbian, gay, bisexual, and transgender persons: Systematic literature review. *BMC International Health and Human Rights, 16*(1), 1–10. https://doi.org/10.1186/s12914-015-0072-9

American Psychological Association. (2021). APA | Guidelines for Psychological Practice with Sexual Minority Persons. *The American Psychological Association*, February. https://www.apa.org/about/policy/psychological-sexual-minority-persons.pdf

Azevedo, J., Castilho, P., Carreiras, D., Martins, M. J., Barreto, C., Cherpe, S., Pereira, A. T.., & Macedo, A. (2023). Development of the Clinical Interview for Bipolar Disorder (CIBD) – Rational and experts' panel evaluation. *Journal of Neurology, Neurological Science and Disorders, 9*(1), 45–54. https://doi.org/10.17352/jnnsd.000056

Bostwick, W. B., Boyd, C. J., Hughes, T. L., West, B. T., & McCabe, S. E. (2014). Discrimination and mental health among lesbian, gay, and bisexual adults in the United States. *American Journal of Orthopsychiatry, 84*(1), 35–45. https://doi.org/10.1037/h0098851

Carvalho, S. A., Castilho, P., Seabra, D., Salvador, M. C., Rijo, D., & Carona, C. (2022). Critical issues in cognitive behavioural therapy (CBT) with gender and sexual minorities (GSMs). *The Cognitive Behaviour Therapist, 15*, e3. https://doi.org/10.1017/S1754470X21000398

Carvalho, S. A., & Guiomar, R. (2022). Self-Compassion and Mental Health in Sexual and Gender Minority People: A Systematic Review and Meta-Analysis. *LGBT Health, 9*(5), 287–302. https://doi.org/10.1089/lgbt.2021.0434

Castilho, P., Pinto-Gouveia, J., & Duarte, J. (2015). Exploring Self-criticism: Confirmatory factor analysis of the FSCRS in clinical and nonclinical samples. *Clinical Psychology and Psychotherapy, 22*(2), 153–164. https://doi.org/10.1002/cpp.1881

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum Associates.

Depue, R. A., & Morrone-Strupinsky, J. V. (2005). A neurobehavioral model of affiliative bonding: Implications for conceptualizing a human trait of affiliation. *Behavioral and Brain Sciences, 28*(3), 313–350. https://doi.org/10.1017/S0140525X05000063

Faul, F., Erdfelder, E., Lang, A., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods 39,* 175–191. https://doi.org/10.3758/BF03193146

Field, A. (2018). *Discovering Statistics Using IBM SPSS Statistics* (5th ed.). SAGE Publications Inc.

Fowler, J. A., Viskovich, S., Buckley, L., & Dean, J. A. (2022). A call for ACTion : A systematic review of empirical evidence for the use of Acceptance and Commitment Therapy (ACT) with LGBTQI + individuals. *Journal of Contextual Behavioral Science, 25*(July), 78–89. https://doi.org/10.1016/j.jcbs.2022.06.007

Francis, A. W., Dawson, D. L., & Golijani-Moghaddam, N. (2016). The development and validation of the Comprehensive assessment of Acceptance and Commitment Therapy processes (CompACT). *Journal of Contextual Behavioral Science, 5*(3), 134–145. https://doi.org/10.1016/j.jcbs.2016.05.003

Frost, D. M., & Meyer, I. H. (2023). Minority stress theory: Application, critique, and continued relevance. *Current Opinion in Psychology, 51*, 101579. https://doi.org/10.1016/j.copsyc.2023.101579

Garcia, J., Vargas, N., Clark, J. L., Magaña Álvarez, M., Nelons, D. A., & Parker, R. G. (2019). Social isolation and connectedness as determinants of well-being: Global evidence mapping focused on LGBTQ youth. *Global Public Health, 15*(4), 497–519. https://doi.org/10.1080/17441692.2019.1682028

Glassgold, J. M., Beckstead, L., Drescher, J., Greene, B., Miller, R. L., Worthington, R. L., & Anderson, C. W. (2009). *Appropriate Therapeutic Responses to Sexual Orientation*. https://www.apa.org/pi/lgbt/resources/therapeutic-response.pdf

Germer, C., & Neff, K. (2019). *Teaching the Mindful Self-Compassion Program: A guide for professionals*. The Guilford Press.

Gilbert, P. (2009). *The compassionate mind: A new approach to life's challenges*. New Harbinger Publications, Inc.

Gilbert, P. (2010). *Compassion focused therapy: Distinctive features*. Routledge.

Gilbert, P. (2019). Psychotherapy for the 21st century: An integrative, evolutionary, contextual, biopsychosocial approach. *Psychology and Psychotherapy: Theory, Research and Practice, 92*(2), 164–189. https://doi.org/10.1111/papt.12226

Gilbert, P., Clarke, M., Hempel, S., Miles, J. N. V., & Irons, C. (2004). Criticizing and reassuring oneself: An exploration of forms, styles and reasons in female students. *British Journal of Clinical Psychology, 43*(1), 31–50. https://doi.org/10.1348/014466504772812959

Gilbert, P., & Irons, C. (2005). Focused therapies and compassionate mind training for shame and self-attacking. In P. Gilbert (Ed.), *Compassion: Conceptualisations, Research and Use in Psychotherapy* (pp. 263–325). Routledge.

Gilbert, P., & Mascaro, J. (2017). Compassion fears, blocks and resistances an evolutionary investigation. In E. M. Seppälä, E. S.- Thomas, S. L. Brown, & M. C. Worline (Eds.), *The Oxford Handbook of Compassion Science* (pp. 513–538). Oxford University Press.

Gilbert, P., McEwan, K., Matos, M., & Rivis, A. (2011). Fears of compassion: Development of three self-report measures. *Psychology and Psychotherapy: Theory, Research and Practice, 84*(3), 239–255. https://doi.org/10.1348/147608310X526511

Gilbert, P., & Simos, G. (2022). *Compassion focused therapy clinical practice and applications*. Routledge.

Gilbert, P., & Procter, S. (2006). Compassionate mind training for people with high shame and self--criticism: Overview and pilot study of a group therapy approach. *Clinical Psychology and Psychotherapy, 13*(6), 353–379. https://doi.org/10.1002/cpp.507

Hatzenbuehler, M. L. (2009). How does sexual minority stigma "get under the skin"? A psychological mediation framework. *Psychological Bulletin, 135*(5), 707–730. https://doi.org/10.1037/a0016441

Hayes, S. C. (2004). Acceptance and commitment therapy, relational frame theory, and the third wave of behavioral and cognitive therapies. *Behavior Therapy, 35*(4), 639–665. https://doi.org/10.1016/S0005-7894(04)80013-3

Hayes, S. C., Strosahl, K. D., & Wilson, K. G. (1999). *Acceptance and commitment therapy: An experiential approach to behavior change*. The Guilford Press.

Hayes, S. C., Strosahl, K. D., & Wilson, K. G. (2012). *Acceptance and Commitment Therapy: The process and practice of mindful change* (2nd ed.). The Guilford Press.

Helminen, E. C., Ducar, D. M., Scheer, J. R., Parke, K. L., Morton, M. L., & Felver, J. C. (2022). Self--compassion, minority stress, and mental health in sexual and gender minority populations: A meta-analysis and systematic review. *Clinical Psychology: Science and Practice, 30*(1), 26–39. https://doi.org/10.1037/cps0000104

Hofmann, S. G., Sawyer, A. T., Witt, A. A., & Oh, D. (2010). The effect of mindfulness-based therapy on anxiety and depression: A meta-analytic review. *Journal of Consulting and Clinical Psychology, 78*(2), 169–183. https://doi.org/10.1037/a0018555

Iacono, G., Craig, S. L., Crowder, R., Brennan, D. J., & Loveland, E. K. (2022). A Qualitative study of the LGBTQ+ youth affirmative mindfulness program for sexual and gender minority youth. *Mindfulness, 13*(1), 222–237. https://doi.org/10.1007/s12671-021-01787-2

Irons, C., & Beaumont, E. (2017). *The compassionate mind workbook: A step-by-step guide to developing your compassionate self*. Robinson.

Ivtzan, I. (2020). *Handbook of mindfulness-based programmes: mindfulness interventions from education to health and therapy*. Routledge.

Jacobson, N. S., & Truax, P. (1991). Clinical significance: A statistical approach to defining meaningful change in psychotherapy research. *Journal of Consulting and Clinical Psychology, 59*(1), 12–19. https://doi.org/10.1037/0022-006X.59.1.12

Kabat-Zinn, J. (1994). *Wherever you go, there you are: Mindfulness meditation in everyday life*. Hachette Books.

Kennedy, F., & Pearson, D. (2020). *Integrating CBT and third wave therapies*. Routledge.

Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. *Behaviour Research and Therapy, 33*(3), 335–343. https://doi.org/10.1016/0005-7967(94)00075-u

Mahon, C. P., Pachankis, J. E., Kiernan, G., & Gallagher, P. (2021). Risk and Protective Factors for Social Anxiety Among Sexual Minority Individuals. *Archives of Sexual Behavior, 50*(3), 1015–1032. https://doi.org/10.1007/s10508-020-01845-1

Manão, A., Seabra, D., & Salvador, M. C. (2024). Measuring shame related to sexual orientation: Validation of Sexual Minority - External and Internal Shame (SM-EISS). *Sexuality Research and Social Policy*. Advance Online Publication. https://doi.org/10.1007/s13178-024-00976-7

Martins, M. J., Palmeira, L., Xavier, A., Castilho, P., Macedo, A., Pereira, A. T., Pinto, A. M., Carreiras, D., & Barreto-Carvalho, C. (2019). The Clinical Interview for Psychotic Disorders (CIPD): Preliminary results on interrater agreement, reliability and qualitative feedback. *Psychiatry Research, 272*(January), 723–729. https://doi.org/10.1016/j.psychres.2018.12.176

Matos, M., Gonçalves, E., Palmeira, L., Melo, I., Steindl, S. R., & Gomes, A. A. (2023). Advancing the assessment of compassion: Psychometric study of the compassion motivation and action scales in a Portuguese sample. *Current Psychology, 42*(12), 10092–10106. https://doi.org/10.1007/s12144-021-02311-4

Mattick, R. P., & Clarke, J. C. (1998). Development and validation of measures of social phobia scrutiny fear and social interaction anxiety. *Behaviour Research and Therapy, 36*(4), 455–470. https://doi.org/10.1016/s0005-7967(97)10031-6

McDermott, E., Roen, K., & Scourfield, J. (2008). Avoiding shame: Young LGBT people, homophobia and self-destructive behaviours. *Culture, Health and Sexuality, 10*(8), 815–829. https://doi.org/10.1080/13691050802380974

Meyer, I. H. (2003). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: Conceptual issues and research evidence. *Psychological Bulletin, 129*(5), 674–697. https://doi.org/10.1037/0033-2909.129.5.674

Meyer, I. H. (2020). Rejection sensitivity and minority stress: A challenge for clinicians and interventionists. *Archives of Sexual Behavior, 49*(7), 2287–2289. https://doi.org/10.1007/s10508-019-01597-7

Mohr, J. J., & Kendra, M. S. (2011). Revision and extension of a multidimensional measure of sexual minority identity: The lesbian, gay, and bisexual identity scale. *Journal of Counseling Psychology, 58*(2), 234–245. https://doi.org/10.1037/a0022858

Moradi, B., & Budge, S. L. (2018). Engaging in LGBQ+ affirmative psychotherapies with all clients: Defining themes and practices. *Journal of Clinical Psychology, 74*(11), 2028–2042. https://doi.org/10.1002/jclp.22687

Nappa, M. R., Bartolo, M. G., Pistella, J., Petrocchi, N., Costabile, A., & Baiocco, R. (2022). "I do not like being me": The Impact of self-hate on increased risky sexual behavior in sexual minority people. *Sexuality Research and Social Policy, 19*(2), 737–750. https://doi.org/10.1007/s13178-021-00590-x

Neff, K. D., & Germer, C. K. (2013). A pilot study and randomized controlled trial of the mindful self-compassion program. *Journal of Clinical Psychology, 69*(1), 28–44. https://doi.org/10.1002/jclp.21923

Nguyen, D. T. (2021). *Compassion for self-identity: An evaluation of a compassion based intervention for stigmatized sexual identities based intervention for stigmatized sexual identities*. [Doctoral Dissertation, Western Michigan University]. Western Michigan University, University Libraries. https://scholarworks.wmich.edu/dissertations/3765

Nussbaum, A. M. (2013). *The pocket guide to the DSM-5™ diagnostic exam*. American Psychiatric Publishing, Inc.

Oliveira, J. M., Lopes, D., Costa, C. G., & Nogueira, C. (2012). Lesbian, Gay, and Bisexual Identity Scale (LGBIS): Construct validation, sensitivity analyses and other psychometric properties. *The Spanish Journal of Psychology, 15*(1), 334–347. https://doi.org/10.5209/rev_sjop.2012.v15.n1.37340

Pachankis, J. E., Harkness, A. R., Jackson, S. D., & Safren, S. A. (2022). *Transdiagnostic LGBTQ--Affirmative Cognitive-Behavioral Therapy*. OXFORD University Press.

Pachankis, J. E., Soulliard, Z. A., Morris, F., & Seager van Dyk, I. (2023). A model for adapting evidence-based interventions to be LGBQ-affirmative: Putting minority stress principles and case conceptualization into clinical research and practice. *Cognitive and Behavioral Practice, 30*(1), 1–17. https://doi.org/10.1016/j.cbpra.2021.11.005

Pais-Ribeiro, J. L., Honrado, A., & Leal, I. (2004). Contribuição para o estudo da adaptação portuguesa das Escalas de Ansiedade, Depressão e Stress (EADS) de 21 itens de Lovibond e Lovibond. *Psicologia, Saúde & Doenças, 5*(2), 229–239. https://www.redalyc.org/articulo.oa?id=36250207

Parsons, T. D., Notebaert, A. J., Shields, E. W., & Guskiewicz, K. M. (2009). Application of reliable change indices to computerized neuropsychological measures of concussion. *International Journal of Neuroscience, 119*(4), 492–507. https://doi.org/10.1080/00207450802330876

Pieri, M., & Brilhante, J. (2022). "The Light at the End of the Tunnel": Experiences of LGBTQ+ Adults in Portuguese Healthcare. *Healthcare, 10*(1), 146. https://doi.org/10.3390/healthcare10010146

Pinel, E. C. (1999). Stigma consciousness: The psychological legacy of social stereotypes. *Journal of Personality and Social Psychology, 76*(1), 114–128. https://doi.org/10.1037/0022-3514.76.1.114

Pinto-Gouveia, J., & Salvador, M. C. (2011, September 11-15). *The Social Interaction Anxiety Scale and the Social Fobia Scale in the Portuguese Population* [Poster]. 31st Congress of the European Association for Behaviour and Cognitive Therapy, Istanbul, Turkey.

Ramos, M. M. (2023). Terapia Afirmativa: psicoterapia com pessoas LGBTQ+. In M. M. Ramos (Ed.), *Manual de Terapia Afirmativa: um guia para a psicoterapia com pessoas LGBTQ+* (pp. 19-34). Afirmativa Editora.

Santos, D. (2021). *Shame, coping with shame and psychopathology: a moderated-mediation analysis by sexual orientation* [Master dissertation, University of Coimbra]. Estudo Geral: Repositório científico da UC. https://hdl.handle.net/10316/96518

Seabra, D. (2024). *Mental Health and Well-Being in People with Minoritized Sexual Identities: Assessment, Processes, and an Innovative Contextual Intervention* (*Free2Be*) [Doctoral dissertation, University of Coimbra]. Estudo Geral: Repositório científico da UC. https://hdl.handle.net/10316/116148

Seabra, D., Carvalho, S. A., Gato, J., Petrocchi, N., & Salvador, M. D. C. (2024). (self)tainted love: Shame and self-criticism as self-discriminatory processes underlying psychological suffering in sexual minority individuals. *Journal of Human Behavior in the Social Environment*. Advance online publication. https://doi.org/10.1080/10911359.2024.2333777

Seabra, D., Gato, J., Petrocchi, N., Carreiras, D., & do Céu Salvador, M. (2024). Stigma Consciousness Questionnaire (SCQ-PT): Validation in a Portuguese sample of sexual minorities. *Sexuality Research & Social Policy: A Journal of the NSRC, 21*(1), 148–160. https://doi.org/10.1007/s13178-023-00859-3

Seabra, D., Gato, J., Petrocchi, N., & Salvador, M. C. (2023, July 26-28). *Exploration od the fears of compassion as a mechanism of change in the Free2Be: Mindfulness, acceptance, and compassion-based intervention for sexual minorities* [Poster]. ACBS World Conference 2023, Nicosia, Cyprus.

Seabra, D., Gato, J., Petrocchi, N., & Salvador, M. C. (2024). Affirmative mindfulness, acceptance, and compassion-based group intervention for sexual minorities (*Free2Be*): A non-randomized mixed-method study for feasibility with exploratory analysis of effectiveness. *Mindfulness, 15*(7), 1814–1830. https://doi.org/10.1007/s12671-024-02403-9

Simões, D. (2012). *Medo da Compaixão: Estudo das propriedades psicométricas da Fears of Compassion Scales (FCS) e da sua relação com medidas de vergonha, compaixão e psicopatologia*. [Master Dissertation, University of Coimbra]. Estudo Geral UC. https://hdl.handle.net/10316/23280

Singh, R. S., Watford, T. S., Cotterman, R. E., & O'Brien, W. H. (2020). A pilot study of acceptance and commitment therapy for sexual minorities experiencing work stress. *Journal of Contextual Behavioral Science, 16*(February), 25–29. https://doi.org/10.1016/j.jcbs.2020.02.001

Steindl, S. R., Tellegen, C. L., Filus, A., Seppälä, E., Doty, J. R., & Kirby, J. N. (2021). The Compassion Motivation and Action Scales: A self-report measure of compassionate and self-compassionate behaviours. *Australian Psychologist, 56*(2), 93–110. https://doi.org/10.1080/00050067.2021.1893110

Stitt, A. L. (2022). Of parades and protestors: LGBTQ + Affirmative Acceptance and Commitment Therapy. *Journal of LGBTQ Issues in Counseling, 16*(4), 422–438. https://doi.org/10.1080/26924951.2022.2092931

Sun, S., Nardi, W., Loucks, E. B., & Operario, D. (2021). Mindfulness-based interventions for sexual and gender minorities: A systematic review and evidence evaluation. *Mindfulness, 12*(10), 2439–2459. https://doi.org/10.1007/s12671-021-01710-9

Trindade, I. A., Ferreira, N. B., Mendes, A. L., Ferreira, C., Dawson, D., & Golijani-Moghaddam, N. (2021). Comprehensive assessment of Acceptance and Commitment Therapy processes (CompACT): Measure refinement and study of measurement invariance across Portuguese and UK samples. *Journal of Contextual Behavioral Science, 21*(May 2020), 30–36. https://doi.org/10.1016/j.jcbs.2021.05.002

Twohig, M. P., & Levin, M. E. (2017). Acceptance and Commitment Therapy as a treatment for anxiety and depression: A review. *Psychiatric Clinics of North America, 40*(4), 751–770. https://doi.org/10.1016/j.psc.2017.08.009

Wallace, B. C., & Santacruz, E. (2017). Health disparities and LGBT populations. In R. Ruth & E. Santacruz (Eds.), *LGBT psychology and mental health: Emerging research and advances* (pp. 177–195). Praeger/ABC-CLIO.

Wilson, A. C., Mackintosh, K., Power, K., & Chan, S. W. Y. (2019). Effectiveness of self-compassion related therapies: A systematic review and meta-analysis. *Mindfulness, 10*(6), 979–995. https://doi.org/10.1007/s12671-018-1037-6

Veiga, F. A. da, Andrade, J., Garrido, P., Neves, S., Madeira, N., Craveiro, A., Santos, J. C., & Saraiva, C. B. (2014). IRIS: A new tool for suicide risk assessment. *Psiquiatria Clínica, 35*(2), 65–72. http://hdl.handle.net/10400.4/1861

Zahra, D., & Hedge, C. (2010). The reliable change index: Why isn't it more popular in academic psychology. *Psychology Postgraduate Affairs Group Quarterly, 76*, 14–19. https://doi.org/10.53841/bpspag.2010.1.76.14

Zernerova, L., Chambers, M., Flaxmen, P., Cerce, S., Greenwood, M., & Kappes, A. (2020). *Rainbow Mind Radical Self-Care modality RCT research project*. Rainbow Mind. https://rainbowmind.org/wp-content/uploads/2020/11/RadSec-RCT-GEO-Report-final-18-Sept-2020.pdf