TPM Vol. 33, No. 1, 2026
ISSN: 1972-6325
https://www.tpmap.org/

Open Access

PSYCHOMETRIC EVALUATION OF MENTAL HEALTH AND MINORITY STRESS INSTRUMENTS IN GREEK LGBTQ+ AND NON-LGBTQ+ ADULTS: A PILOT STUDY

STERGIOS KAPRINIS[1], ANASTASIOS CHARALAMPAKIS[2]

[1] 2ND DEPARTMENT OF PSYCHIATRY, SCHOOL OF MEDICINE, FACULTY OF HEALTH SCIENCES, ARISTOTLE UNIVERSITY OF THESSALONIKI, 6, ODYSSEOS STR, 55535, THESSALONIKI, GREECE
[2] acharala@auth.gr, 11-13, MELETIOU METAXAKI STR., GR-73131, GREECE,

Abstract
This pilot study examined the psychometric properties of instruments assessing mental health outcomes (perceived stress, psychological distress, depressive symptoms, suicidality), minority stressors (structural stigma, rejection sensitivity, internalized homophobia), general stressors (stressful life events), and personality traits in a sample of LGBTQ+ and non-LGBTQ+ adults in Greece. Given that the factors influencing the mental health of LGBTQ+ individuals in Greece remain understudied, a small-scale pilot study was conducted to evaluate the psychometric performance of the selected scales prior to a large-scale investigation. A convenience sample of 108 participants, 67 of whom self-identified as LGBTQ+, completed a battery of self-report measures. Factorial validity was examined using factor-analytic techniques, and internal consistency was assessed with standard reliability indices. Based on the results, the instruments were refined for use in the main study. All scales demonstrated satisfactory psychometric properties, except for the BFI-10 personality inventory, which showed inadequate reliability and poor construct validity. An alternative personality trait measure will therefore be selected for the main study.
Keywords: mental health; LGBTQ+; minority stress; Greece; psychometric evaluation.

INTRODUCTION

The mental health of LGBTQ+ populations has been extensively examined over the past two decades. Since the introduction of the minority stress model by Meyer (2003), which identifies stressors specific to LGBTQ+ individuals, a substantial body of research has investigated the impact of minority identity on mental health. Drawing upon the work of Meyer (2003), Hatzenbuehler (2009), Feinstein (2019), Bailey (2019), and subsequent studies, it is evident that LGBTQ+ individuals are exposed both to minority-specific stressors and to general stressors that shape mental health outcomes.

Building on the transactional theory of stress, which posits that both proximal and distal stressors influence individuals' mental health (Lazarus & Folkman, 1984), the minority stress model extends this framework by specifying minority-related sources of stress. These include distal stressors such as discrimination and microaggressions and proximal stressors such as internalized homophobia and expectations of rejection (Meyer, 2003). Hatzenbuehler (2009), through the psychological mediation framework, further elaborated the role of distal stressors by grouping them into social/interpersonal processes (e.g., social isolation, stigmatizing social norms), coping and emotion dysregulation (e.g., rumination, suppression, maladaptive coping motives), and cognitive processes (e.g., hopelessness, negative self-schemas, risk-taking expectancies), each of which contributes to depression, anxiety, and substance use disorders. Feinstein (2019) expanded the conceptualization of proximal stressors by applying the rejection sensitivity model, emphasizing both expectations of rejection and rejection-related anxiety. Bailey (2019) highlighted personality traits as an additional factor that may be associated with sexual orientation.

Previous research suggests that individuals, regardless of sexual orientation or gender identity, share several common risk factors for psychopathology, including abuse, low self-compassion, low self-esteem, negative social relationships, and low social support (Clements-Nolle et al., 2018; Liao et al., 2015; Rosario et al., 2005). Mental health outcomes examined in LGBTQ+ populations include psychological distress (Li et al., 2024; Morandini et al., 2023; Platt & Scheitle, 2018; Pitonak et al., 2020; Harper et al., 2023; Timmins et al., 2020; Wilson et al., 2021), stress (Exline et al., 2021; Kaniuka et al., 2019; Lopez & Yeater, 2018; Källström et al., 2022; Mahjoubi et al., 2024; Randolph & Leung, 2022; Shenkman et al., 2021; Wu et al., 2023; Janković et al., 2020), depression (Boppana & Gross, 2019; Charak et al., 2023; Ibrahim et al., 2022; Källström et al., 2022; Kaniuka et al., 2019; Kim et al., 2024; Levi-Belz et al., 2022; Li et al., 2024; Lopez & Yeater, 2018; Randolph & Leung, 2022; Rogowska & Cisek, 2024; Wang et al., 2020; Wu et al., 2023; Janković et al., 2020), and suicidality (Charak et al., 2023; Ibrahim et al., 2022; Janković et al., 2020; Kaniuka et al., 2019; Levi-Belz et al., 2022; Rogers et al., 2021; Rogowska & Cisek, 2024). External factors such as age (Alibudbud, 2022), education (Janković et al., 2020), occupation (Alibudbud, 2022; Wang et al., 2020), income (Wang et al., 2020; Wu et al., 2023), religion (Boppana & Gross, 2019; Exline et al., 2021; Kim et al., 2024), marital status (Janković et al., 2020; Wilson et

al., 2021), and personality traits (Brandtzæg Godø et al., 2024; Levi-Belz et al., 2022) also influence mental health. Substance use, smoking (Harper et al., 2023; Li et al., 2024; Pitonak et al., 2020; Wu et al., 2023), and alcohol use have been conceptualized as distal stressors, whereas rejection sensitivity (Grigoreva & Szaszkó, 2024) and internalized homophobia (Exline et al., 2021; Rogers et al., 2021) represent proximal stressors.

Recent empirical work has increasingly adopted an intersectional lens in studying LGBTQ+ mental health, recognizing that additional marginalized identities can compound psychological vulnerability. Research indicates that being an ethnoracial minority (Chaoudhry et al., 2024; Clark et al., 2021a, 2021b; Davidson et al., 2024; Donaldson et al., 2023; DiGiuseppi et al., 2022; Hall et al., 2021; Harkness et al., 2021; Kelly et al., 2021; Khanolkar et al., 2023; Khanolkar & Mazhari, 2024; King et al., 2023; Liu et al., 2024; Lopez et al., 2022; McPherson et al., 2023; Parchem et al., 2025; Salerno & Sambrana, 2024; Shepherd et al., 2025; Standley et al., 2021; Thomas et al., 2022; McGuire et al., 2024; Watson et al., 2024; Wiglesworth et al., 2022; Wootton et al., 2025), belonging to health-related marginalized groups such as individuals with cancer (Boehmer et al., 2022), HIV/AIDS (Wang et al., 2024), or autism (Mournet et al., 2024), and experiencing structural disadvantages including incarceration (Hail-Jares et al., 2023), older age (Chan et al., 2023; Gomez et al., 2025), poverty or unstable housing (Chan et al., 2023; Grigsby et al., 2024; Gomez et al., 2025; King et al., 2023), and lower educational attainment (Gomez et al., 2025) all exacerbate mental health difficulties. This body of research demonstrates the wide array of minority-specific and general stressors, as well as social vulnerabilities, that shape LGBTQ+ mental health.

In Greece, factors affecting LGBTQ+ mental health remain understudied. Drydakis (2021) examined both physical and mental health among sexual minorities and found that gender identity, education, employment, and income predict health outcomes, while societal rejection, family acceptance, and broader economic conditions also emerged as influential. Vleioras et al. (2021) investigated differences in mental health (depression and hopelessness) between LGB and heterosexual adolescents, reporting homogeneity in depression but heterogeneity in hopelessness. Andreou et al. (2022) were the first to specifically examine the mental health of sexual minority adolescents in Greece, showing that they report higher levels of depression than their heterosexual peers. Kaprinis and Charalampakis (2022) assessed whether depression and suicidality differ by sexual orientation and found that, although levels differed significantly between LGB and heterosexual participants, the effect of sexual orientation became non-significant after adjusting for sociodemographic variables. More recently, Kaprinis and Charalampakis (2024) examined predictors of attitudes toward LGB individuals in Greece but did not focus on determinants of mental health. Overall, the limited number of Greek studies and the absence of systematically validated instruments capturing both minority-specific and general stressors highlight the need for rigorous psychometric work in this context.

Although existing evidence suggests that sexual orientation and/or gender identity may affect mental health in Greece, prior studies have not examined whether instruments originally developed for the general population are reliable and valid for LGBTQ+ samples in the Greek context. A small-scale pilot study including both LGBTQ+ and non-LGBTQ+ participants was therefore necessary as preliminary work for a larger project incorporating contemporary theoretical frameworks on LGBTQ+ mental health in Greece. In this pilot, the mental health outcomes assessed include stress, psychological distress, depression, and suicidality. Minority stressors under investigation include rejection sensitivity, structural stigma, and internalized homophobia, and corresponding validated research instruments capturing these constructions were selected. The following sections present the instruments used in the pilot study and the rationale for their selection, followed by the results concerning their psychometric properties.

From a clinical and translational perspective, this study has direct implications for healthcare providers and public health professionals. Valid and reliable psychometric instruments are essential for the early detection of psychopathology, effective screening in primary care and mental health settings, and the design of culturally sensitive interventions. By providing preliminary evidence on the performance of these measures in Greek LGBTQ+ and non-LGBTQ+ adults, this work contributes to bridging the gap between psychometric research and clinical application and facilitates evidence-based mental health assessment for vulnerable and underserved populations.

MATERIALS AND METHODS

Research instruments

Stress was assessed using the 14-item Perceived Stress Scale (PSS-14) developed by Cohen et al. (1983). The PSS-14 measures the degree to which situations in one's life are appraised as stressful over the past month, with responses given on a 5-point Likert scale ranging from 0 ("never") to 4 ("very often"). The scale has been translated into Greek and standardized in the general population (Katsarou et al., 2012), and it has been widely used in studies including LGBTQ+ samples, demonstrating strong psychometric properties (e.g., Collet et al., 2023; Jabson-Tree & Patterson, 2019; Krueger et al., 2018; Lewandowski et al., 2022; Ma & Li, 2024; McElroy et al., 2015; Mozumder, 2017; Mahjoubi et al., 2024; Reyes et al., 2017; Sanders & McCartney Chalk, 2016; Vosvick & Stem, 2019).

Although Cohen et al. (1983) did not examine the factorial structure of the PSS-14, Cohen and Williamson (1988) suggested a one-factor solution. More recent research, however, has indicated that a unidimensional structure is

both theoretically and psychometrically problematic (Reis et al., 2019). Several studies support a two-factor structure (Almadi et al., 2012; Lee & Jeong, 2019; Michaelides et al., 2016), while others propose a bifactor model (Dominguez-Lara et al., 2022; Juárez-García et al., 2021; Park & Colvin, 2019; Tikka et al., 2022). Across these models, items consistently cluster into positively and negatively worded subscales, corresponding to perceived helplessness and perceived self-efficacy (Jovanović & Gavrilov-Jerković, 2015; Perera et al., 2017; Reis et al., 2019; Wu & Amtmann, 2013). In bifactor solutions, a robust general perceived stress factor also emerges (Denovan et al., 2019; Lee & Jeong, 2019), but the two-factor model has been adopted in numerous studies as a conceptual and empirically sound representation (e.g. Michaelides et al., 2016; Park & Colvin, 2019; Taylor, 2015; Perera et al., 2017). Although a small number of studies have proposed a three-factor structure (Pangtey et al., 2020; Bradbury, 2013), this solution is inconsistent with the transactional theory of stress proposed by Lazarus and Folkman (1984), which guided the scale's development.

A recent meta-confirmatory factor analysis by Koğar and Koğar (2024) concluded that the two-factor model provides the best overall fit. In Greece, Andreou et al. (2011) also supported the two-factor structure. Within the minority stress framework, and drawing on Hatzenbuehler (2009), helplessness and self-efficacy may be conceptualized as distal cognitive stress processes, providing further justification for selecting the PSS-14 and for focusing on its two-factor solution in the present study.

Psychological distress was assessed using Kessler's 10-item Psychological Distress Scale (K-10; Kessler et al., 2002), which evaluates non-specific psychological distress over the past 30 days on a 5-point Likert scale (from "none of the time" to "all of the time"). The scale has not yet been translated and standardized in Greek, and there is no consensus regarding its factorial structure (Easton et al., 2017). Kessler et al. (2002) developed both the 10-item (K-10) and 6-item (K-6) versions and originally proposed a unidimensional model, a structure that has been supported in some studies (e.g., Drapeau et al., 2012). Other research has identified a two-factor solution distinguishing anxiety and depression (Brooks et al., 2006). Sunderland et al. (2012) argue that a one-factor model tends to fit better in general population samples, whereas a two-factor solution may be more appropriate in clinical or psychiatric samples. Additional work has suggested that models with more than two factors can yield superior fit indices (Arnaud et al., 2010; Sampasa-Kanyinga et al., 2018). For the K-6, several studies indicate that a two-factor structure may provide a better fit than a unidimensional model (Bessaha, 2015; Easton et al., 2017; Ko & Harrington, 2016). Both the K-10 and K-6 have been used in research with LGBTQ+ samples and have demonstrated good psychometric performance (e.g., Bariola et al., 2015; Kamen et al., 2015; Timmins et al., 2019; Krueger et al., 2020; Ni Wayan Septarini et al., 2021; Pattison et al., 2021; Miller et al., 2022; Singh et al., 2022; Lim et al., 2024; Luu et al., 2024; Wang et al., 2024). In the present pilot study, both versions were therefore evaluated in order to identify the most suitable configuration for the subsequent main study.

Depressive symptoms were measured using the 21-item Beck Depression Inventory (BDI; Beck, 1961), which assesses the severity of cognitive, emotional, and somatic symptoms of depression. The BDI has been translated and standardized for use in the Greek population (Ntonias & Demertzi, 1983). As with the Kessler scales, there is no consensus on its factorial structure. Beck et al. (1988) proposed a two-factor model comprising emotional–somatic and cognitive dimensions, which has been replicated in subsequent studies (Campos & Gonçalves, 2011; Wang et al., 2014). Other work also supports a two-factor model differentiating emotional–cognitive from somatic symptoms (Whisman et al., 2000; Yang et al., 2014). In samples of individuals with cardiac disease or cancer, a three-factor model—emotional, cognitive, and somatic symptoms—has been reported (Buckley et al., 2001; Ginting et al., 2013; Almeida et al., 2023). Nonetheless, most studies rely on the total BDI score, suggesting the presence of a strong general depression factor alongside two or three more specific subdimensions. For example, Kim and Lee (2024) identified a robust general factor with emotional, cognitive, and somatic subfactors. In Greece, Giannakou et al. (2013) supported the original two-factor model proposed by Beck et al. (1988). The BDI has been widely used in LGBTQ+ research, where it has demonstrated strong psychometric properties (Yolaç & Meriç, 2020; López de Lara et al., 2020; He et al., 2023; Ranta et al., 2025). Importantly, Rimes et al. (2019) caution that LGBTQ+ individuals may overreport somatic symptoms due to prior negative or traumatic experiences in healthcare settings, a consideration that underscores the importance of examining the scale's structure and functioning in LGBTQ+ samples.

Suicidality was assessed using the 12-item Risk Assessment for Suicidality Scale (RASS), developed specifically for the Greek population (Fountoulakis et al., 2012). Regarding its factorial structure, Fountoulakis et al. (2011) initially proposed a four-factor solution (fear, life, intention, history), whereas Fountoulakis et al. (2012) later suggested a more parsimonious three-factor model (life, intention, history), which has been validated in subsequent research (Jovičić et al., 2016). Although the RASS has been validated in the Greek general population, it has not previously been used with LGBTQ+ samples. It has, however, been employed in the large-scale COMET-G quasi-epidemiological study, involving more than 55,000 participants across 40 countries (Fountoulakis et al., 2022a, 2022b; Imran et al., 2021; Panfil et al., 2022; Syunyakov, 2022). The scale assesses both recent and lifetime suicidal behavior. Marshal et al. (2011) suggest that instruments focusing on recent suicidal behavior may be particularly useful for predicting suicide attempts. Compared with widely used tools such as the Columbia-Suicide Severity Rating Scale (Posner et al., 2011) and Beck's Scale for Suicide Ideation (Beck & Steer, 1991), the RASS additionally incorporates attitudes toward life. For LGBTQ+ individuals, this dimension may capture aspects of internalized stigma and ambivalence toward life, as well as potential avoidance

of death-related cognitions. These features, together with its existing Greek validation data, supported the selection of the RASS for the present pilot study.

Turning to proximal minority stressors, rejection sensitivity was measured using the scale developed by Berenson et al. (2009), which has not yet been translated into Greek. Berenson et al. (2009) proposed a bifactorial structure consisting of a general rejection sensitivity factor and two subdimensions: rejection expectancy and rejection concern. This model has been supported by subsequent research, which has identified either two correlated factors (Lord et al., 2022; Iurina & Kosonogov, 2025) or a bifactorial configuration with a strong general factor (Innamorati et al., 2014; Ramadas et al., 2025). The scale has recently been used with LGBTQ+ samples and has demonstrated sound psychometric properties (Maiolatesi et al., 2022; Desjardins et al., 2025), making it suitable for examining rejection-related cognitive–affective processes in the present context.

Internalized homophobia—a central minority stress construct—was assessed using the 27-item scale by Ross and Rosser (1996). Their factor analysis identified four dimensions: public identification, internal perception of stigma, social comfort with other gay men, and moral/religious acceptance of homosexuality. Subsequent research has proposed alternative structures, including the seven-item, three-factor model by Smolenski et al. (2010) and the 26-item, three-factor solution by Costa et al. (2013), comprising public identification, internal stigma perception, and social pressure. Conceptualized within minority stress theory and symbolic interactionism, internalized homophobia reflects cognitive–emotional processes that manifest in avoidance, withdrawal, and emotional distress (Herek, 2004; Puckett et al., 2015, 2016).

Because the original measure was developed for gay men, it was not only translated but also linguistically adapted to ensure inclusivity across the LGBTQ+ spectrum. Items were reworded so that references specific to gay men were replaced with wording applicable to diverse sexual orientations and gender identities. As a result, the adapted instrument functions as a measure of internalized LGBTQ+-phobia. This adaptation was necessary because existing instruments often differ depending on whether minority status is defined solely by sexual orientation or by gender identity. The present pilot study therefore provided an opportunity to evaluate the psychometric properties of this inclusive version in a mixed LGBTQ+ and non-LGBTQ+ Greek sample.

Regarding distal minority stressors, structural stigma was assessed using a scale developed for the present study, informed by relevant theoretical frameworks. Building on Link and Phelan's (2001) theory, Hatzenbuehler et al. (2024) conceptualized stigma as occurring at individual, interpersonal, and structural levels. Structural stigma refers to institutional constraints embedded in legislation, public policies, and social systems—such as restricted access to healthcare, education, or safety (Hatzenbuehler & Link, 2014). Two methodological approaches are commonly used to operationalize structural stigma. The first involves the analysis and coding of legal and policy documents at national or local levels to identify institutionalized stigma (Corrigan et al., 2004). Although this approach relies on objective indicators, it may overlook informal practices or unwritten norms (Livingston, 2013). The second approach aggregates data on community attitudes toward stigmatized groups to generate community-level indicators (e.g., at national or regional level). This method has been widely used to measure structural stigma related to mental illness (Evans-Lacko et al., 2012), sexuality (Hatzenbuehler, 2014), and HIV/AIDS (Miller et al., 2011). A key methodological advantage is that it does not require responses from members of the stigmatized group, thereby reducing bias associated with asking individuals directly about experiences of stigma (Diez Roux, 2007). However, it may underestimate structural stigma due to social desirability in self-reported attitudes (Livingston, 2013).

Drawing on this literature, Hatzenbuehler et al. (2024) identified several indicators of structural stigma toward LGBTQ+ individuals, including social attitudes, density of LGBTQ+ households, prevalence of violence, presence of LGBTQ+ communities, religious context, and shifts in government accompanied by policy changes. Inspired by these indicators, a four-item scale was developed for the present study, using a five-point Likert format (1 = Totally disagree, 5 = Totally agree).

The first two items assess personal exposure to LGBTQ+ individuals: "I know many LGBTQ+ couples" and "I know LGBTQ+ individuals in my working environment." These items indirectly capture the density of LGBTQ+ individuals in one's social and occupational environment, as well as general social attitudes. Their wording allows responses from both LGBTQ+ and non-LGBTQ+ participants. For LGBTQ+ respondents, endorsement may indicate a strong local LGBTQ+ community, whereas for non-LGBTQ+ respondents it may reflect a social climate in which LGBTQ+ individuals feel comparatively safe to disclose their identities. The remaining two items address social attitudes and LGBTQ+-affirming policies: "LGBTQ+ rights are adequately protected in my area" and "In Greece, public opinion is positive toward LGBTQ+ individuals." These items solicit perceptions of societal and governmental attitudes rather than personal views. Although LGBTQ+ respondents may underestimate public acceptance or the adequacy of legal protections, this potential bias is mitigated by including non-LGBTQ+ respondents and enabling direct comparisons between groups. The wording of all items was designed to minimize social desirability bias among non-LGBTQ+ participants.

To measure lifetime stressors, the 13-item Stressful Life Events Screening Questionnaire (SLESQ-13) by Goodman et al. (1998) was used. The questionnaire was developed based on Criterion A1 for the diagnosis of post-traumatic stress disorder in the DSM-IV (APA, 1994), without incorporating Criterion A2, which concerns the individual's subjective emotional response to the event. Criterion A1 defines traumatic events as involving actual or threatened death, serious injury, or threats to the physical integrity of oneself or others. Guided by this definition, Goodman et al. (1998) created 11 items representing specific traumatic event categories and two

additional items reflecting more general categories consistent with Criterion A. These categories were informed by reviews of trauma-exposure instruments focusing either on specific events (e.g., Koss & Oros, 1982; Russell, 1986; Straus, 1989) or on broader trauma types (e.g., Green, 1996; Norris, 1990; Resnick et al., 1993), as well as by preliminary pilot testing. Compared with earlier instruments (e.g., Norris, 1990; Vrana & Lauterbach, 1994), the SLESQ-13 places less emphasis on natural disasters and greater emphasis on interpersonal trauma. Higher scores indicate greater cumulative exposure to stressful or potentially traumatic events across the lifespan. The scale has not been previously translated into Greek.

The factorial structure of the SLESQ-13 was not examined during its initial development (Goodman et al., 1998) but was later investigated by Allen et al. (2015), who identified three distinct factors: sexual trauma, physical assault, and emotional distress. The scale was selected for the present study because, although it has not previously been used with LGBTQ+ samples, it includes trauma categories that are particularly relevant for this population, such as sexual violence. Experiences frequently encountered by LGBTQ+ individuals—including family rejection, school-based victimization, and police mistreatment—constitute cumulative trauma and have been associated with complex post-traumatic stress disorder (C-PTSD) symptomatology (Hendricks & Testa, 2012). Although the psychometric properties of the SLESQ-13 have not been evaluated in LGBTQ+ populations, its reliability and validity have been supported in other marginalized groups, particularly low-income African American women (Green et al., 2006), supporting its use as a measure of cumulative exposure to stressful and potentially traumatic events.

Personality traits were assessed using the BFI-10 (Rammstedt & John, 2007), a brief instrument measuring the Big Five dimensions: Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience. The BFI-10 has been developed as a very short alternative to longer Big Five inventories, and its factorial structure has been supported across several cultural contexts (Thalmayer et al., 2011; Rammstedt et al., 2021; Rammstedt et al., 2023). It has also been used in recent studies involving LGBTQ+ samples (Hirshfield et al., 2024; Fořt et al., 2024), which further motivated its inclusion in the present pilot study.

Finally, the questionnaire included items assessing sociodemographic and background variables such as age, educational attainment, employment status, marital status, monthly income, nationality, place of residence, religious affiliation, chronic illness, substance use, and self-identification regarding sexual orientation and gender identity, given their documented associations with mental health outcomes.

Translation procedure

For the scales that had not yet been translated into Greek, a multi-step translation and cultural adaptation procedure was followed. First, the researcher/author, a native Greek speaker and expert in the field, translated the scales from English into Greek (forward translation). A second expert then performed a backward translation, translating the Greek versions back into English without access to the original instruments. Next, an expert committee compared the forward and backward translations to identify discrepancies and to evaluate conceptual equivalence. At this stage, certain items were revised to maintain the integrity of the original instruments while ensuring cultural relevance and clarity. In the final step, the translated scales were administered to a small group of participants in a pilot study to assess comprehensibility and appropriateness, and minor wording adjustments were made where necessary.

Research procedure

The questionnaires were administered to both LGBTQ+ and non-LGBTQ+ participants. A portion of the questionnaires was distributed face-to-face by the author, which allowed participants to raise questions and discuss any difficulties encountered during completion. The remaining questionnaires were administered online via Google Forms. To ensure adequate representation of LGBTQ+ individuals, the survey link was posted in LGBTQ+-related groups and pages on social media.

Before completing the questionnaires in person, participants received an information sheet explaining the purpose of the research and were assured that their participation was voluntary and that their responses would remain anonymous and confidential and would not be disclosed to third parties. They were also informed that all data would be stored exclusively on the researcher's personal computer in an encrypted folder. After reading the information, participants were asked to sign an informed consent form. The same information and consent forms were presented online, and respondents had to provide electronic consent before accessing the questionnaire. Data collection began on 1 October 2024 and concluded on 11 December 2024. The study was conducted in accordance with standard ethical principles for research with human participants, including respect for autonomy, confidentiality, and the right to withdraw at any time without penalty.

Statistical analysis

To examine the psychometric properties of the scales, factor-analytic techniques were employed. Because the PSS-14 has an established Greek translation and its factorial structure has previously been examined, confirmatory factor analysis (CFA) was used to compare one-factor and two-factor models. The K-10 Psychological Distress Scale has not been translated into Greek; therefore, the translated version was subjected to principal component analysis (PCA), exploratory factor analysis (EFA), and CFA. For the BDI, one-factor and two-factor models were compared using CFA. The RASS was also evaluated using CFA, comparing one-factor, three-factor, and four-factor solutions. For the remaining scales, which likewise lacked Greek translations, PCA, EFA, and CFA were conducted to explore and confirm their latent structures.

Model evaluation in CFA relied on the Comparative Fit Index (CFI), the Tucker–Lewis Index (TLI), the Standardized Root Mean Square Residual (SRMR), and the Root Mean Square Error of Approximation (RMSEA). The CFI is relatively insensitive to sample size (Fan et al., 1999) and compares the fit of the specified model to a null model; values ≥ .95 are typically considered indicative of good fit and values ≥ .90 of acceptable fit (Byrne, 1994; Hu & Bentler, 1999). The TLI is another comparative fit index and is even less sensitive to sample size, although Hu and Bentler (1999) caution that its performance may be suboptimal with samples smaller than 250. As with the CFI, TLI values ≥ .95 are usually interpreted as good and values ≥ .90 as acceptable (Tucker & Lewis, 1973). The SRMR reflects the standardized difference between observed and predicted correlations, with values ≤ .08 indicating good fit (Byrne, 1994). The RMSEA ranges from 0 to 1, with values ≤ .05 generally indicating good fit and values between .05 and .08 indicating acceptable fit (Awang, 2012; Byrne, 1994).

Reliability analyses were performed for all resulting scales and subscales using Cronbach's α and McDonald's ω indices. The combined findings of the factor analyses and reliability assessments guided the selection and refinement of the instruments to be used in the final phase of the research. Given the modest sample size and the pilot nature of the study, all factor-analytic results were interpreted as preliminary and in need of replication in a larger independent sample.

Ορίστε μια πιο «σφιχτή», καθαρή και συνεπής εκδοχή όλου του αποσπάσματος που έστειλες, έτοιμη για επικόλληση στο άρθρο (διατηρώ όλα τα νούμερα και τα tables, απλώς βελτιώνω τη ροή και το ύφος).

RESULTS

Sample

The pilot study sample consisted of 108 participants. In terms of age, 37.96% were 36–45 years old, 22.22% were 18–25, 15.74% were 26–35, 13.89% were 46–55, and 10.19% were 56–65 years old; no participants were older than 65. Regarding educational attainment, the majority (57.41%) had completed undergraduate studies at a university or technological educational institute, 16.67% held a Master's degree, 11.11% were high school graduates, 5.56% had completed post-secondary education, 4.63% were junior high school graduates, 2.78% were primary school graduates, and 1.85% held a doctoral degree.

With respect to occupation, 37.04% of participants were private-sector employees, 21.30% were public-sector employees, and 21.30% were self-employed. In addition, 11.11% reported "other – caregiver," 4.63% were retired, 2.78% were unemployed, and 1.85% were students. Monthly income (a quantitative variable) had a mean of €1,644.24 (SD = €1,260.05), with values ranging from €2.50 to €7,000. One participant reported an income range ("€1,000–€1,100"); for the analyses, this response was coded as €1,000. Because the accuracy of the lowest reported income (€2.50) was questionable and one response indicated a range rather than a single value, the income variable was transformed into an ordinal categorical variable in the final study.

Regarding marital status, 34.26% of participants were in a relationship or cohabiting, 29.63% were single, 27.78% were married or in a civil partnership, 7.41% were divorced, and 0.93% were widowed. With respect to number of children, 65.74% had no children, 22.22% had two, 6.48% had one, 4.63% had four, and 0.93% had three children. Most participants (92.59%) reported Greek nationality, followed by Albanian (4.63%), Iranian (1.85%), and Cypriot (0.93%). Over half of the sample (52.78%) resided in the Region of Attica, followed by Crete (34.26%), Central Macedonia (9.26%), Eastern Macedonia and Thrace (1.85%), and the Ionian Islands and South Aegean (0.93% each). In terms of religious affiliation, 63.89% identified as Christian, 31.48% as atheist, 2.78% as agnostic, and 1.85% as Muslim. The majority (63.89%) reported no substance use.

In relation to sexual orientation and gender identity, 26.85% identified as heterosexual cisgender women, 24.07% as homosexual cisgender men, 13.89% as pansexual cisgender men, 12.04% as bisexual cisgender men, 11.11% as heterosexual cisgender men, 5.56% as homosexual transgender women, 1.85% as homosexual cisgender women, and 1.85% as homosexual transgender men. In addition, 0.93% identified as heterosexual non-binary, 0.93% as homosexual non-binary, and 0.93% reported no interest in self-identification. Overall, most of the sample identified with a minority sexual orientation and/or gender identity. In the final study, more detailed explanatory information was provided to clarify the meaning of each sexual orientation and gender identity category. This clarification was deemed necessary because only homosexual transgender identities were reported, suggesting that some respondents may have misunderstood the categories. For example, a homosexual transgender man is a person assigned female at birth, who identifies as male and is attracted to men, a distinction that may not have been fully understood by all participants.

Validity and reliability analysis

Perceived Stress Scale (PSS-14)

Because the PSS-14 has already been translated and validated in Greek, a confirmatory factor analysis (CFA) was conducted to examine its factorial structure. Two alternative models were tested: (a) a unidimensional model, in which all items loaded on a single latent factor (Perceived Stress), and (b) a two-factor model differentiating Perceived Helplessness and Perceived Self-Efficacy. In the one-factor model, several items had non-significant loadings and overall model fit was poor. By contrast, the two-factor model showed excellent fit across all indices. Factor loadings ranged from 0.20 to 1.18 and were all statistically significant ($p < .001$), indicating strong relationships between the observed indicators and their respective latent constructs.

Table 1. Model Comparison for the PSS-14 (Confirmatory Factor Analysis)

Model	CFI	TLI	SRMR	RMSEA
One-factor model	0.907	0.823	0.109	0.124
Two-factor model	1.000	1.000	0.046	0.000

For the total PSS-14 scale, internal consistency was high, with Cronbach's α = 0.842 and McDonald's ω = 0.850, both indicating excellent reliability. Items with the lowest item–rest correlations were items 2 (r = .323) and 8 (r = .385), whereas all remaining items had correlations above 0.40. Deletion of any item resulted in a decrease in both α and ω, confirming the strong internal coherence of the scale. Despite the inadequate fit of the unidimensional model, these reliability indices indicate that a total perceived stress score can nonetheless be meaningfully derived.

Table 2. Internal Consistency Indices for the Perceived Stress Scale (PSS-14)

Item	Cronbach's α if item dropped	McDonald's ω if item dropped
pss1	0.830	0.838
pss2	0.842	0.850
pss3	0.835	0.844
pss4	0.824	0.829
pss5	0.824	0.831
pss6	0.831	0.838
pss7	0.832	0.840
pss8	0.838	0.846
pss9	0.836	0.844
pss10	0.835	0.842
pss11	0.833	0.842
pss12	0.816	0.826
pss13	0.835	0.844
pss14	0.840	0.847

To further examine the reliability of each subscale, internal consistency indices were calculated separately. For the Perceived Helplessness subscale, Cronbach's α = 0.798 and McDonald's ω = 0.808 indicated acceptable reliability. Removal of any item led to a reduction in both indices.

Table 3. Internal Consistency Indices for the Perceived Helplessness Subscale (PSS-14)

Item	Cronbach's α if item dropped	McDonald's ω if item dropped
pss1	0.757	0.766
pss2	0.773	0.778
pss3	0.758	0.763
pss8	0.795	0.811
pss11	0.772	0.790
pss14	0.748	0.774

For the Perceived Self-Efficacy subscale, reliability was very good (Cronbach's α = 0.853; McDonald's ω = 0.860). Removal of item 13 would slightly increase both indices, but the change was negligible and not considered meaningful.

Table 4. Internal Consistency for the PSS-14 Perceived Self-Efficacy Subscale

Item	Cronbach's α if item dropped	McDonald's ω if item dropped
pss4	0.827	0.835
pss5	0.817	0.827
pss6	0.813	0.823
pss7	0.829	0.840

Item	Cronbach's α if item dropped	McDonald's ω if item dropped
pss9	0.831	0.844
pss10	0.837	0.847
pss13	0.866	0.869

Kessler Psychological Distress Scales (K-10 and K-6)

Because the K-10 has not previously been translated or standardized in Greek, a series of analyses were conducted, including principal component analysis (PCA), exploratory factor analysis (EFA), and CFA, to examine the validity of the Greek version. The Kaiser–Meyer–Olkin (KMO) statistic was 0.885, indicating excellent sampling adequacy for factor analysis. Bartlett's test of sphericity yielded a p-value close to zero, confirming that the data were suitable for factor extraction. Using Varimax rotation and the eigenvalue > 1 criterion, two components emerged.

Table 5. Principal Component Analysis of the Kessler Psychological Distress Scale (K-10)\

Item	Component 1	Component 2
K10-1		0.853
K10-2		0.880
K10-3	0.665	0.612
K10-4	0.849	
K10-5		0.852
K10-6	0.778	0.450
K10-7	0.701	0.507
K10-8	0.773	0.431
K10-9	0.868	
K10-10	0.876	

All loadings exceeded 0.40, although items 3, 6, 7, and 8 cross-loaded on both components. To clarify the factor structure, three separate EFAs were conducted. A maximum likelihood EFA with Varimax rotation and eigenvalue > 1 again produced a two-factor structure, consistent with the PCA results:

Table 6. EFA of the K-10 Scale (Maximum Likelihood, Varimax rotation)

Item	Factor 1	Factor 2
K10-1		0.748
K10-2		0.867
K10-3	0.670	0.592
K10-4	0.794	
K10-5		0.828
K10-6	0.760	0.452
K10-7	0.700	0.468
K10-8	0.756	0.423
K10-9	0.855	
K10-10	0.811	

A second EFA extracting a single factor explained 68.61% of the variance and yielded the loadings shown below:

Table 7. EFA of the K-10 Scale (Maximum Likelihood, One-Factor Solution)

Item	Factor 1
K10-1	0.662
K10-2	0.711
K10-3	0.892
K10-4	0.829
K10-5	0.728

Item	Factor 1
K10-6	0.892
K10-7	0.850
K10-8	0.857
K10-9	0.859
K10-10	0.754

All item loadings were well above 0.40, supporting a unidimensional model. A further EFA using only the six most representative items based on factor loadings (the K-6 items) produced two factors with eigenvalues greater than 1:

Table 8. EFA of the K-6 Scale (Maximum Likelihood, Varimax rotation)

Item	Factor 1	Factor 2
K10-1	0.745	
K10-2	0.888	
K10-4		0.816
K10-5	0.837	
K10-9		0.793
K10-10		0.854

Items 1, 2, and 4 loaded on the first factor (Anxiety), whereas items 3, 5, and 6 loaded on the second factor (Depression). To confirm the final structure of the scale, CFA was performed for three competing models:

Table 9. Model Comparison – Confirmatory Factor Analyses of the Kessler Psychological Distress Scale

Model	Items	Factors	CFI	TLI	SRMR	RMSEA
K-10 (one factor)	10	1	0.991	0.979	0.0318	0.0676
K-6 (one factor)	6	1	1.000	1.020	0.0124	0.000
K-6 (two factors)	6	2	1.000	1.000	0.0255	0.000

All models demonstrated excellent fit. However, the K-6 model, particularly the one-factor solutions, showed the best overall fit indices. These findings support the presence of a strong general factor of psychological distress alongside two specific, correlated dimensions (Anxiety and Depression). A total psychological distress score can therefore be validly derived.

For the K-10 scale, internal consistency was excellent (Cronbach's $\alpha = 0.948$; McDonald's $\omega = 0.949$). All items correlated above 0.40 with the total scale, and item removal reduced reliability, indicating strong internal coherence.

Table 10. Internal Consistency Indices for the K-10 Scale

Item	Cronbach's α if item dropped	McDonald's ω if item dropped
K10-1	0.947	0.949
K10-2	0.945	0.947
K10-3	0.938	0.940
K10-4	0.942	0.944
K10-5	0.944	0.946
K10-6	0.939	0.941
K10-7	0.940	0.942
K10-8	0.940	0.942
K10-9	0.940	0.942
K10-10	0.945	0.947

For the K-6 scale, internal consistency was very good (Cronbach's $\alpha = 0.888$; McDonald's $\omega = 0.892$). Deletion of any item led to a decrease in these indices.

Table 11. Internal Consistency Indices for the K-6 Scale

Item	Cronbach's α if item dropped	McDonald's ω if item dropped
K10-1	0.880	0.883
K10-2	0.869	0.872
K10-4	0.867	0.871
K10-5	0.861	0.871
K10-9	0.860	0.872
K10-10	0.872	0.883

Examination of internal consistency for the K-6 subscales showed that the Anxiety subscale had very good reliability (Cronbach's α = 0.897; McDonald's ω = 0.903), with item deletion reducing reliability.

Table 12. Internal Consistency for the K-6 (Anxiety Subscale)

Item	Cronbach's α if dropped	McDonald's ω if dropped
K10-1	0.902	0.902
K10-2	0.819	0.821
K10-5	0.842	0.848

For the Depression subscale, reliability indices were excellent (Cronbach's α = 0.901; McDonald's ω = 0.903).

Table 13. Internal Consistency for the K-6 (Depression Subscale)

Item	Cronbach's α if dropped	McDonald's ω if dropped
K10-4	0.853	0.853
K10-9	0.862	0.865
K10-10	0.859	0.862

The two-factor structure of the K-6 (Anxiety and Depression) is consistent with bifactor models of psychological distress, such as that described for the DASS-21 (Lovibond & Lovibond, 1995), supporting the construct validity of the instrument among LGBTQ+ individuals.

Beck Depression Inventory (BDI-21)

According to existing literature on the Greek version of the Beck Depression Inventory (BDI-21), the scale consists of two factors: Cognitive–Emotional Symptoms and Somatic Symptoms (Giannakou et al., 2013). To assess the validity of this structure in the present sample, CFA was conducted comparing a one-factor and a two-factor model. In the one-factor model, all items had significant loadings ranging from 0.342 to 0.781. In the two-factor model, all items—except item 11—exhibited loadings above 0.40, and all loadings were statistically significant. Fit indices for the two competing models are summarized below:

Table 14. Model Comparison – Confirmatory Factor Analyses of the BDI-21 scale

Model	CFI	TLI	SRMR	RMSEA
One-factor model	0.955	0.930	0.061	0.074
Two-factor model	0,949	0,931	0.061	0.071

All indices indicated good model fit and suggested the presence of a strong general factor of depression, as well as two subfactors representing cognitive–emotional and somatic symptoms. Regarding reliability, the total BDI-21 showed excellent internal consistency, with Cronbach's α = 0.953 and McDonald's ω = 0.954. Each item correlated above 0.40 with the total score, and removal of any item reduced reliability.

Table 15. Internal Consistency Indices for the Beck Depression Inventory (BDI-21)

Item	Cronbach's α if dropped	McDonald's ω if dropped
bdi1	0.949	0.950
bdi2	0.951	0.952

Item	Cronbach's α if dropped	McDonald's ω if dropped
bdi3	0.951	0.952
bdi4	0.950	0.952
bdi5	0.950	0.951
bdi6	0.951	0.952
bdi7	0.950	0.951
bdi8	0.951	0.953
bdi9	0.951	0.952
bdi10	0.952	0.953
bdi11	0.953	0.954
bdi12	0.951	0.952
bdi13	0.951	0.953
bdi14	0.951	0.952
bdi15	0.950	0.952
bdi16	0.950	0.951
bdi17	0.949	0.950
bdi18	0.951	0.953
bdi19	0.951	0.953
bdi20	0.952	0.953
bdi21	0.952	0.953

For the Cognitive–Emotional Symptoms subscale, Cronbach's α = 0.937 and McDonald's ω = 0.938 indicated excellent reliability. All items correlated above 0.40 with the rest; removal of item 11 slightly improved the coefficients but not sufficiently to justify exclusion.

Table 16. Internal Consistency for the BDI-21 (Cognitive–Emotional Symptoms Subscale)

Item	Cronbach's α if dropped	McDonald's ω if dropped
bdi1	0.928	0.929
bdi2	0.932	0.933
bdi3	0.931	0.932
bdi4	0.933	0.934
bdi5	0.930	0.931
bdi6	0.932	0.934
bdi7	0.930	0.931
bdi8	0.932	0.934
bdi9	0.931	0.933
bdi10	0.934	0.936
bdi11	0.938	0.940
bdi12	0.933	0.935
bdi13	0.935	0.936
bdi14	0.933	0.935

For the Somatic Symptoms subscale, reliability was also excellent (Cronbach's α = 0.903; McDonald's ω = 0.907). Item deletion reduced both indices, confirming strong internal coherence.

Table 17. Internal Consistency for the BDI-21 (Somatic Symptoms Subscale)

Item	Cronbach's α if dropped	McDonald's ω if dropped
bdi15	0.881	0.886
bdi16	0.887	0.893
bdi17	0.878	0.880

Item	Cronbach's α if dropped	McDonald's ω if dropped
bdi18	0.892	0.897
bdi19	0.890	0.895
bdi20	0.896	0.901
bdi21	0.893	0.897

Risk Assessment Suicidality Scale (RASS)

According to Fountoulakis et al. (2011), who developed the Risk Assessment Suicidality Scale (RASS-12) for the Greek population, the instrument comprises four factors: Intention, Attitude Toward Life, History, and Fear. To test whether this factorial structure would emerge in the present study, a CFA was conducted. All items except item 9 had statistically significant loadings; however, several items (3, 7, and 12) had loadings below 0.40, and overall model fit was poor.

An alternative three-factor model was then examined, following Fountoulakis et al. (2012), which excludes the Fear factor and assigns item 1 to the Attitude Toward Life dimension. From a clinical perspective, the extracted factors correspond to key psychiatric constructs relevant to LGBTQ+ populations, in which Major Depressive Disorder is highly prevalent (Cai et al., 2024). Symptoms such as anhedonia and social withdrawal—central to the Attitude Toward Life factor—reflect depressive symptomatology as defined in the DSM-5. Suicidal thoughts and behaviors captured in the Intention and History factors are consistent with features of Major Depression and Borderline Personality Disorder (Cavale et al., 2024), both associated with elevated suicide risk. Given the high exposure of LGBTQ+ individuals to traumatic events, comorbidity with Post-Traumatic Stress Disorder (PTSD) is also common (Valentine et al., 2025). PTSD-related avoidance and mood alterations align with the Attitude Toward Life dimension, supporting its conceptual distinction from suicidal intent. This distinction between Attitude Toward Life and Intention parallels the theoretical differentiation between passive and active suicidal ideation (Joiner, 2005).

In the three-factor model, item 1 was not significantly associated with its intended factor, and several items (2, 3, 7, 9, and 12) had loadings below 0.40, although overall model fit was good. Internal consistency indices suggested that removing items 1 and 9 improved reliabilities, and the History subscale showed low reliability (see tables below). Consequently, a revised one-factor model with ten items (RASS-10) was tested. All loadings were statistically significant and exceeded the minimum threshold, indicating an adequate single latent construction. Model fit indices indicated good overall fit:

Table 18. Model Comparison for the Risk Assessment Suicidality Scale (RASS)

Model	Items	Factors	CFI	TLI	SRMR	RMSEA
RASS-12 (Four-factor model)	12	4	0.924	0.856	0.077	0.121
RASS-12 (Three-factor model)	12	3	0.991	0.983	0.041	0.042
RASS-10 (One-factor model)	10	1	0.975	0.962	0.043	0.070

Overall, the three-factor and one-factor solutions showed better fit than the initial four-factor model. Given considerations of parsimony and reliability, the RASS-10 single-factor structure was preferred for subsequent analyses. For the original RASS-12, reliability was acceptable (Cronbach's α = 0.792; McDonald's ω = 0.857), although items 1 (r = 0.02) and 9 (r = 0.06) had extremely low item–rest correlations and their removal improved reliability.

Table 19. Internal Consistency Indices for the RASS-12

Item	Cronbach's α if dropped	McDonald's ω if dropped
rass1	0.822	0.874
rass2	0.788	0.855
rass3	0.779	0.856
rass4	0.749	0.835
rass5	0.745	0.818
rass6	0.761	0.825
rass7	0.770	0.835
rass8	0.756	0.824
rass9	0.825	0.871
rass10	0.758	0.846
rass11	0.769	0.848

Item	Cronbach's α if dropped	McDonald's ω if dropped
rass12	0.784	0.854

For the Attitude Toward Life subscale, reliability was unacceptable (α = 0.494; ω = 0.588). Removing items 1 and 9 slightly improved the coefficients but did not bring them to acceptable levels.

Table 20. Internal Consistency for the RASS-12 (Attitude Toward Life Subscale)

Item	Cronbach's α if dropped	McDonald's ω if dropped
rass3	0.366	0.464
rass4	0.369	0.532
rass10	0.147	0.376
rass9	0.568	0.638
rass1	0.603	0.665

For the Intention subscale, reliability was very good (α = 0.851; ω = 0.900), and removal of item 2 further improved reliability.

Table 21. Internal Consistency for the RASS-12 (Intention Subscale)

Item	Cronbach's α if dropped	McDonald's ω if dropped
rass2	0.927	0.932
rass5	0.773	0.857
rass6	0.801	0.865
rass7	0.823	0.879
rass8	0.774	0.846

For the History subscale, reliability was also unacceptable (α = 0.461; ω = 0.572); removing item 11 increased both indices to acceptable levels.

Table 22. Internal Consistency for the RASS-12 (History Subscale)

Item	Cronbach's α if dropped	McDonald's ω if dropped
rass11	0.894	—
rass12	0.180	—

In summary, although the original four-factor model did not demonstrate acceptable fit, both the three-factor and one-factor models yielded good fit indices. However, internal consistency for several subscales was suboptimal. The RASS-10 single-factor version showed acceptable reliability and strong theoretical coherence, representing a concise and psychometrically robust measure of suicidality risk, particularly suited for use in LGBTQ+ populations where risk is elevated due to structural and psychological stressors.

Structural Stigma Scale

The Structural Stigma Scale was developed by the researcher for the purposes of the present study. The KMO measure of sampling adequacy was 0.596, which, although modest, is acceptable for a pilot study. Bartlett's test of sphericity was statistically significant ($p < .001$), confirming the suitability of the data for factor analysis. PCA with Varimax rotation extracted two components. Items 1 and 2 are loaded on one factor, whereas items 3 and 4 are loaded on the other, with all loadings well above 0.40.

Table 23. Principal Component Analysis of the Structural Stigma Scale (Varimax rotation)

Item	Component 1	Component 2
stigma1		0.872
stigma2		0.947
stigma3	0.939	
stigma4	0.956	

A maximum likelihood EFA with Varimax rotation replicated this two-factor solution.

Table 24. Exploratory Factor Analysis of the Structural Stigma Scale (Maximum Likelihood, Varimax rotation)

Item	Factor 1	Factor 2	Uniqueness
stigma1		0.827	0.214
stigma2		0.850	0.268
stigma3	0.906		0.126
stigma4	0.917		0.135

Conceptually, one factor represents personal experience or interpersonal exposure to LGBTQ+ individuals, and the other represents perceived social climate—that is, perceived societal attitudes and institutional protection of LGBTQ+ rights. A two-factor CFA model was tested to confirm this structure. All loadings were high and statistically significant, and model fit indices indicated excellent fit (CFI = 1.00, TLI = 1.00, RMSEA = 0.00).
For the total scale, internal consistency was good (Cronbach's α = 0.800; McDonald's ω = 0.809). Item 2 showed a relatively lower item–rest correlation, and its removal slightly increased the reliability indices.

Table 25. Internal Consistency Indices for the Structural Stigma Scale

Item	Cronbach's α if dropped	McDonald's ω if dropped
stigma1	0.733	0.795
stigma2	0.820	0.844
stigma3	0.700	0.769
stigma4	0.731	0.788

For the Personal Experience factor, reliability was acceptable to good (α = 0.846; ω = 0.847) and removing either item reduced reliability.

Table 26. Internal Consistency for the Structural Stigma Scale – Personal Experience Subscale

Item	Cronbach's α if dropped	McDonald's ω if dropped
stigma1	0.687	—
stigma2	0.785	—

For the Societal Attitudes factor, reliability was excellent (α = 0.928; ω = 0.929), and item removal decreased both indices.

Table 27. Internal Consistency for the Structural Stigma Scale – Societal Attitudes Subscale

Item	Cronbach's α if dropped	McDonald's ω if dropped
stigma3	0.894	—
stigma4	0.841	—

Overall, the Structural Stigma Scale demonstrated a clear and theoretically consistent two-factor structure, representing Personal Experience with LGBTQ+ individuals and Perceived Societal Attitudes. The CFA confirmed excellent model fit, and internal consistency was good to excellent across subscales. These findings suggest that the scale is a psychometrically sound tool for assessing structural stigma in Greek-speaking and LGBTQ+-inclusive contexts, and it is particularly valuable for studies examining social determinants of mental health in marginalized populations.

Stressful Life Events Screening Questionnaire (SLESQ-13)
For the SLESQ-13, the KMO measure of sampling adequacy was 0.846, indicating excellent suitability for factor analysis, and Bartlett's test of sphericity was statistically significant ($p < .001$). PCA with Varimax rotation extracted three components. Items 1, 2, 3, 10, 11, and 12 loaded on the first factor; item 7 cross-loaded on the first and second factors. Items 4, 5, 7, 9, and 13 loaded on the second factor, and item 5 cross-loaded on the second and third factors.

Table 28. Principal Component Analysis of the SLESQ-13 (Varimax rotation)

Item	Component 1	Component 2	Component 3
slesq1	0.773		

Item	Component 1	Component 2	Component 3
slesq2	0.820		
slesq3	0.581		
slesq4		0.508	
slesq5		0.729	0.420
slesq6			0.846
slesq7	0.470	0.543	
slesq8			0.822
slesq9		0.852	
slesq10	0.723		
slesq11	0.729		
slesq12	0.841		
slesq13		0.635	

An EFA using the maximum likelihood method with Varimax rotation also extracted three factors. Items 1, 2, 3, and 7 loaded on the first factor (with item 7 also loading on the second factor); items 5, 9, and 13 loaded on the second factor; and items 6 and 8 loaded on the third factor. Item 4 did not show a statistically significant loading.

Table 29. Exploratory Factor Analysis of the SLESQ-13 (Maximum Likelihood, Varimax rotation)

Item	Factor 1	Factor 2	Factor 3
slesq1	0.708		
slesq2	0.772		
slesq3	0.518		
slesq4			
slesq5		0.794	
slesq6			0.980
slesq7	0.453	0.419	
slesq8			0.492
slesq9		0.635	
slesq10	0.687		
slesq11	0.674		
slesq12	0.816		
slesq13		0.588	

Because several items had comparable loadings across multiple factors, an oblique (Oblimin) rotation was applied to allow for correlated dimensions. The Oblimin rotation yielded a single dominant factor on which all items loaded above 0.40, indicating that the items collectively measure a unified underlying construct of exposure to stressful or potentially traumatic life events.

Table 30. Exploratory Factor Analysis of the SLESQ-13 (Maximum Likelihood, Oblimin rotation)

Item	Factor 1
slesq1	0.702
slesq2	0.718
slesq3	0.591
slesq4	0.461
slesq5	0.568
slesq6	0.410
slesq7	0.645
slesq8	0.405

Item	Factor 1
slesq9	0.392
slesq10	0.793
slesq11	0.720
slesq12	0.814
slesq13	0.617

To verify the one-factor structure suggested by the EFA, a CFA was conducted. All factor loadings were statistically significant, and the model demonstrated good overall fit (CFI = 0.945, TLI = 0.927, SRMR = 0.060, RMSEA = 0.072). Internal consistency for the SLESQ-13 was very good (Cronbach's α = 0.868; McDonald's ω = 0.888). All items showed item–rest correlations above 0.40, and item deletion reduced reliability.

Table 31. Internal Consistency Indices for the SLESQ-13

Item	Cronbach's α if dropped	McDonald's ω if dropped
slesq1	0.857	0.877
slesq2	0.858	0.877
slesq3	0.860	0.881
slesq4	0.863	0.885
slesq5	0.853	0.879
slesq6	0.867	0.887
slesq7	0.853	0.877
slesq8	0.868	0.887
slesq9	0.868	0.887
slesq10	0.855	0.872
slesq11	0.857	0.876
slesq12	0.855	0.872
slesq13	0.853	0.878

Overall, the SLESQ-13 demonstrated a coherent unidimensional structure, strong factorial validity, and high internal reliability. The scale effectively captures cumulative exposure to traumatic or life-threatening experiences, which are critical predictors of psychological distress, particularly within marginalized populations such as LGBTQ+ individuals.

Rejection Sensitivity Scale (RSS)

The Rejection Sensitivity Scale has not previously been translated or validated in Greek. In the present study, the KMO measure of sampling adequacy was 0.823, indicating good suitability for factor analysis, and Bartlett's test of sphericity was statistically significant ($p < .001$). PCA with Varimax rotation extracted four components. Items reflecting rejection concern loaded primarily on the second factor (1a, 2a, 5a, 6a, 7a, 8a, 9a) and the fourth factor (3a, 4a). Some cross-loadings were observed: item 5a loaded on both the second and third factors (higher on the third), and items 8a and 9a loaded on both the second and third factors (higher on the second). Items reflecting rejection expectancy loaded mainly on the first factor (1b, 2b, 3b, 4b, 5b, 6b, 9b) and the third factor (7b, 8b). Items 4b, 5b, and 6b loaded on both the first and third factors, with stronger loadings on the latter. The fourth factor included only two items with significant loadings.

A subsequent maximum likelihood EFA with Varimax rotation also yielded four factors, although some items shifted in their loading patterns. Item 2a showed no significant loading. Rejection concerning items were associated mainly with the third factor, whereas rejection expectancy items loaded on the second. Cross-loadings appeared for items 5b, 6b, and 7b (first–second factors), and 8a and 9a (first–third factors). Because items 3a and 4a remained somewhat distinct from the rest, a three-factor solution was further explored.

When extracting three factors, items related to rejection anxiety clustered primarily on the first factor (1a, 2a, 3a, 5a, 6a, 7a, 8a, 9a). Item 4a did not load significantly, and several items (3a, 5a, 8a, 9a) showed dual loadings (first–second factors). Rejection expectancy items loaded mainly on the third factor (1b, 2b, 3b, 4b, 6b, 9b), although items 4b and 6b also loaded on the second factor; item 7b loaded solely on the second factor.

Given the high inter-item correlations and conceptual overlap, a more parsimonious two-factor solution was ultimately preferred, reflecting the theoretical distinction between rejection concern and rejection expectancy (Downey & Feldman, 1996; Downey et al., 1998). With two extracted factors, most rejection concern items (1a, 2a, 3a, 5a, 6a, 7a, 8a, 9a) loaded on one factor, whereas rejection expectancy items (1b–9b) loaded primarily on

the other. Item 4a again did not load significantly; items 5a, 7b, and 8a showed cross-loadings of comparable magnitude. An oblique (Oblimin) rotation was therefore applied to account for the conceptual correlation between concern and expectancy.

An EFA with maximum likelihood extraction and Oblimin rotation confirmed the two-factor solution, with all loadings above 0.40 except for item 4a. Items 8a and 8b loaded on the same factor, suggesting some conceptual redundancy.

Table 32. Exploratory Factor Analysis of the RSS (Maximum Likelihood, Oblimin rotation)

Item	Factor 1	Factor 2
rss1a		0.736
rss1b	0.643	
rss2a		0.452
rss2b	0.658	
rss3a		0.521
rss3b	0.761	
rss4a		
rss4b	0.860	
rss5a		0.465
rss5b	0.726	
rss6a		1.005
rss6b	0.801	
rss7a		0.996
rss7b		
rss8a	0.493	
rss8b	0.575	
rss9a		0.573
rss9b	0.695	

A two-factor CFA model was subsequently tested. All loadings were statistically significant and high, except for item 4a (0.284). Some model fit indices indicated adequate but not optimal fit (CFI = 0.937, TLI = 0.904, SRMR = 0.127, RMSEA = 0.097). Overall reliability of the full scale was very good (Cronbach's α = 0.890; McDonald's ω = 0.898). Items 4a and 1b showed low item–rest correlations (0.124 and 0.226, respectively), and their removal slightly improved internal consistency.

Table 33. Internal Consistency Indices for the RSS (Full Scale)

Item	Cronbach's α if dropped	McDonald's ω if dropped
rss1a	0.887	0.895
rss1b	0.896	0.902
rss2a	0.884	0.893
rss2b	0.885	0.895
rss3a	0.890	0.898
rss3b	0.886	0.896
rss4a	0.896	0.904
rss4b	0.878	0.888
rss5a	0.879	0.887
rss5b	0.878	0.887
rss6a	0.882	0.891
rss6b	0.885	0.894

rss7a	0.882	0.891
rss7b	0.882	0.891
rss8a	0.880	0.889
rss8b	0.881	0.890
rss9a	0.879	0.888
rss9b	0.886	0.896

For the Rejection Concern subscale, Cronbach's α = 0.885 and McDonald's ω = 0.890 indicated excellent reliability, removing item 4a slightly improved both indices.

Table 34. Internal Consistency for the RSS – Rejection Concern Subscale

Item	Cronbach's α if dropped	McDonald's ω if dropped
rss1a	0.871	0.878
rss2a	0.874	0.881
rss3a	0.875	0.882
rss4a	0.897	0.901
rss5a	0.871	0.878
rss6a	0.857	0.863
rss7a	0.859	0.864
rss8a	0.882	0.886
rss9a	0.864	0.871

For the Rejection Expectancy subscale, Cronbach's α = 0.885 and McDonald's ω = 0.891 also indicated strong internal consistency; removal of item 7b marginally increased reliability.

Table 35. Internal Consistency for the RSS – Rejection Expectancy Subscale

	If item dropped	
	Cronbach's α	McDonald's ω
rss1b	0.883	0.887
rss2b	0.871	0.879
rss3b	0.866	0.874
rss4b	0.858	0.866
rss5b	0.866	0.873
rss6b	0.865	0.873
rss7b	0.892	0.898
rss8b	0.878	0.886
rss9b	0.870	0.877

BFI-10
EFA and PCA were conducted to examine the factor structure of the BFI-10. Both methods extracted four factors rather than the theorized five-factor structure.

Table 36. Factor loadings of BFI-10 items (PCA and Varimax rotation).

Item	PCA Component 1	2	3	4
bfi1	-,747		,421	

Item	PCA Component 1	2	3	4
bfi2	,606			-,630
bfi3	,789			
bfi4		-,733		
bfi5		,781		
bfi6	-,591			
bfi7			-,807	
bfi8	,818			
bfi9				,858
bfi10		,613	,469	

In both EFA and PCA, items 2, 3, and 8 loaded on the first factor (corresponding to Conscientiousness), items 1 and 6 on the second factor (Extraversion), item 9 on the third factor (Neuroticism), and items 5 and 10 on the fourth factor (Openness to Experience). Item 4, which theoretically measures Neuroticism, did not load strongly on any factor. Item 2, intended to measure Agreeableness, loaded on the Conscientiousness factor, likely reflecting translation issues (the Greek rendering of "reliable" aligns more closely with conscientiousness). A CFA with a five-factor model showed that factor loadings were significant only for Extraversion, Conscientiousness, and Openness, whereas Agreeableness and Neuroticism exhibited low or non-significant loadings.

Table 37. Factor loadings and significance in CFA for BFI-10.

Factor	Item	Estimate	SE	Z	p
1 (Extraversion)	bfi1	0.725	0.090	8.065	<.001
	bfi6	0.637	0.108	5.922	<.001
2 (Agreeableness)	bfi7	0.254	0.172	1.480	0.139
	bfi2	0.200	0.120	1.664	0.096
3 (Conscientiousness)	bfi8	0.896	0.101	8.868	<.001
	bfi3	0.729	0.093	7.875	<.001
4 (Neuroticism)	bfi9	16.809	24.474	0.687	0.492
	bfi4	0.001	0.004	0.267	0.790
5 (Openness)	bfi10	0.971	0.266	3.653	<.001
	bfi5	0.492	0.176	2.800	0.005

Internal consistency for each trait factor was evaluated using Cronbach's α and McDonald's ω.

Table 38. Factor loadings and significance in CFA for BFI-10.

Trait	α	ω	Comment
Extraversion	0.661	0.672	Below acceptable threshold
Agreeableness	0.121	0.144	Very low, item correlation = 0.077
Conscientiousness	0.741	0.743	Acceptable
Neuroticism	0.028	0.028	Extremely low, item correlation = 0.014
Openness	0.542	0.556	Low, moderate item correlation = 0.385

The low reliability of most traits likely reflects both the limited number of items per factor (two for most traits) and the misalignment of some items with their intended constructs. Removal of individual items did not materially improve internal consistency. The BFI-10 did not replicate the theoretical five-factor structure in this sample, particularly for Neuroticism and Agreeableness, and reliability indices were below acceptable levels for most traits except Conscientiousness. Use of a longer Big Five instrument (e.g., BFI-44 or NEO-PI-R) is therefore recommended in the main study to achieve adequate construct coverage and internal consistency.

Internalized LGBTQ+-phobia Scale (IHS-26)

The modified Internalized LGBTQ+-phobia Scale (IHS-26) was examined using PCA, EFA, and CFA. PCA extracted six components. The first factor included items 1, 2, 4, 5, 6, 9, 17, 18, 22, and 26, reflecting comfort with LGBTQ+ identity in public spaces. Items 7, 8, 16, 23, and 24 reflected perceived stigma, both social and internal. Items 11 and 12 captured anxieties regarding future appearance, items 13, 14, and 15 reflected perceived

societal attitudes, items 3, 21, and 25 concerned perceived consequences of LGBTQ+ identity, and item 10 reflected personal perception of one's condition.

EFA suggested a three-factor solution: Factor 1 (items 1, 2, 4, 5, 6, 9, 17, 18, 19, 21, 22, 25, 26; public identification as LGBTQ+), Factor 2 (items 11–15; perceived stigma), and Factor 3 (items 7, 8, 16, 23, 24; social pressure). Items 3, 10, and 20 did not exhibit significant loadings. A four-factor solution distinguished items 11 and 12 as a separate "future anxiety" factor, while the remaining factors largely mirrored the three-factor solution.

CFA was first conducted on the three-factor model following Costa et al. (2013), including items 3, 10, and 20. Items 3 and 10 were non-significant, and fit indices were inadequate (CFI = 0.617, TLI = 0.567, SRMR = 0.191, RMSEA = 0.177). The four-factor model similarly showed poor fit (CFI = 0.661, TLI = 0.603, SRMR = 0.170, RMSEA = 0.170). After removing items 3, 10, and 20 (yielding IHS-23), CFA for the four-factor model produced slightly improved but still suboptimal fit indices (CFI = 0.631, TLI = 0.569, SRMR = 0.195, RMSEA = 0.186), whereas for the three-factor model some indices indicated acceptable fit (CFI = 0.906, TLI = 0.840, SRMR = 0.154, RMSEA = 0.114).

The overall scale demonstrated excellent internal consistency (Cronbach's $\alpha = 0.897$; McDonald's $\omega = 0.905$). Item-level analyses suggested that items 7, 8, 11, 12, 14, and 15 contributed less to reliability and could be candidates for removal to enhance internal consistency. Subscale reliability varied: Public Identification as LGBTQ+ ($\alpha = 0.867$, $\omega = 0.913$), Internal Perception of Stigma ($\alpha = 0.639$, $\omega = 0.744$; removal of items 3 and 10 increased reliability), and Perceived Social Pressure ($\alpha = 0.767$, $\omega = 0.783$; item removal did not improve reliability). After removing problematic items, all subscales showed satisfactory to excellent reliability: Public Identification ($\alpha = 0.912$, $\omega = 0.918$), Internal Stigma Perception ($\alpha = 0.804$, $\omega = 0.826$), and Social Pressure (unchanged).

The three subscales align conceptually with internalized stigma (internal perception), public identity concealment or disclosure (public identification), and perceived social oppression (social pressure). Despite the high internal consistency of the total score, certain items contributed poorly to reliability, and factor structure indices were not uniformly optimal. Researchers should therefore exercise some caution when interpreting total scores in LGBTQ+ populations and consider subscale-level analyses where appropriate.

Concurrent validity

To assess concurrent validity, correlations among the resulting scales were examined. Perceived stress showed positive and significant correlations with the K-6 Anxiety ($r = .577$, $p < .001$) and Depression ($r = .450$, $p < .001$) subscales, as well as with the BDI total score ($r = .358$, $p < .001$). Perceived stress was also positively and significantly correlated with the BDI Cognitive–Affective Symptoms ($r = .328$, $p < .001$) and Somatic Symptoms ($r = .356$, $p < .001$).

The K-6 and K-10 scales were highly correlated with the BDI total score ($r = .734$ and $r = .731$, respectively, $p < .001$), as well as with its subdimensions: Cognitive–Affective Symptoms ($r = .739$ and $r = .731$, respectively, $p < .001$) and Somatic Symptoms ($r = .610$ and $r = .619$, respectively, $p < .001$). The K-6 Anxiety and Depression subscales were also strongly and positively correlated with the BDI Cognitive–Affective ($r = .490$ and $r = .771$, respectively, $p < .001$) and Somatic dimensions ($r = .437$ and $r = .634$, respectively, $p < .001$). Both subscales were positively associated with suicidality ($r = .506$ and $r = .442$, respectively, $p < .001$).

The BDI total score was positively correlated with suicidality ($r = .425$, $p < .001$). These associations are consistent with previous findings showing that minority stress and structural stigma among LGBTQ+ populations are linked to higher risk for dysthymia, PTSD, mood and anxiety disorders, depression, psychological distress, suicidal ideation, and suicide attempts (Hatzenbuehler, 2009; Blosnich et al., 2016; Denny et al., 2014; Meyer et al., 2019; English et al., 2022; Panchakis et al., 2021). Suicidality was positively and significantly correlated with the K-6 Anxiety ($r = .441$, $p < .001$) and Depression ($r = .348$, $p < .001$) subscales, as well as with the Cognitive–Affective dimension of the BDI ($r = .526$, $p < .001$), indicating that higher levels of suicidality are associated with increased psychological distress and depressive symptomatology.

The SLESQ-13 total score correlated positively and significantly with the PSS total score ($r = .386$, $p < .001$), supporting concurrent validity and aligning with evidence that cumulative exposure to traumatic or stressful life events is associated with elevated perceived stress and mental health burden.

The Rejection Sensitivity Scale showed a small but significant positive correlation only with the K-6 Anxiety subscale ($r = .251$, $p = .009$). Scores on the Internalized LGBTQ+-phobia Scale were positively and significantly correlated with Rejection Sensitivity scores ($r = .308$, $p < .001$), and negatively and significantly correlated with the Structural Stigma Scale ($r = -.685$, $p < .001$), suggesting that higher internalized stigma is associated with greater rejection sensitivity and lower perceived societal support for LGBTQ+ individuals.

DISCUSSION

Beginning with the PSS-14, the present findings are consistent with previous research supporting the existence of a strong general perceived stress factor alongside two subdimensions, perceived helplessness and perceived self-efficacy (Dominguez-Lara et al., 2022; Juárez-García et al., 2021; Park & Colvin, 2019; Tikka et al., 2022; Jovanović & Gavrilov-Jerković, 2015; Perera et al., 2017; Reis et al., 2019; Wu & Amtmann, 2013; Denovan et al., 2019; Lee & Jeong, 2019). The factorial structure identified in this study was supported by satisfactory fit

indices and high internal consistency, indicating that the Greek version of the PSS-14 is a reliable measure of perceived stress in samples including LGBTQ+ individuals.

Regarding the Kessler Psychological Distress Scales, although the unifactorial K-10 model showed good psychometric performance, the two-factor (anxiety and depression) K-6 version was preferred for the final study, owing to its brevity and its established validity in LGBTQ+ samples. The present results are in line with previous work supporting a unidimensional structure for the K-10 (Kessler et al., 2002; Drapeau et al., 2012; Sunderland et al., 2012) and a two-factor solution for the K-6 (Bessaha, 2015; Easton et al., 2017; Ko & Harrington, 2016). The strong correlations between K-6/K-10 scores and depressive symptomatology further support the concurrent validity of these measures.

For the BDI-21, the results aligned with studies identifying a robust general depression factor accompanied by cognitive–affective and somatic subdimensions (Whisman et al., 2000; Yang et al., 2014). The two-factor model showed good fit, while internal consistency indices were excellent for both the total scale and subscales. These findings are consistent with previous work indicating that LGBTQ+ participants may differentially report somatic symptoms—either underreporting or overreporting—due to prior negative experiences in healthcare settings (Rimes et al., 2019), and they underscore the importance of assessing both cognitive–affective and somatic aspects of depression. Overall, the BDI-21 emerged as a psychometrically robust measure of depressive symptoms for both research and clinical use in samples that include LGBTQ+ adults.

In contrast, the factorial structure of the RASS-12 did not replicate the original four-factor configuration reported by Fountoulakis et al. (2011) or the later three-factor solution (Fountoulakis et al., 2012). Several items showed low factor loadings and contributed weakly to internal consistency. A revised ten-item version (RASS-10) capturing a single general factor of suicidality demonstrated better fit and acceptable reliability. The RASS-10 thus appears to be a concise and psychometrically adequate tool for assessing suicidality risk in LGBTQ+ and non-LGBTQ+ adults in Greece, although further validation in larger samples is warranted.

With respect to proximal minority stressors, a two-factor solution for the Rejection Sensitivity Scale—Rejection Concern and Rejection Expectancy—was supported, consistent with previous findings (Lord et al., 2022; Iurina & Kosonogov, 2025) and with the original conceptualization by Downey et al. (1998). Rejection sensitivity is defined as a disposition to anxiously expect, readily perceive, and strongly react to rejection. Among LGBTQ+ individuals, heightened rejection sensitivity has been linked to hypervigilance to social threat, avoidant coping strategies, and internalized stress processes, thereby increasing vulnerability to depression, social anxiety, and emotional withdrawal (Feinstein, 2019; Pachankis et al., 2015). In this framework, the expectancy dimension reflects cognitive schemas of relational insecurity shaped by microaggressions and institutional marginalization, whereas the concern dimension captures the emotional anticipation of rejection. Together, these dimensions provide a psychometrically sound basis for examining interpersonal stress processes and affect regulation in minority populations.

The Structural Stigma Scale developed for this study yielded a clear two-factor solution, comprising personal experience with LGBTQ+ individuals and perceived societal attitudes and protections. The excellent model fit and high internal consistency of both subscales indicate that the instrument captures key aspects of structural stigma, as conceptualized in contemporary minority stress frameworks. This is particularly important in the Greek context, where formal legal changes co-exist with ongoing social stigma and ambivalence toward LGBTQ+ rights.

For the SLESQ-13, the three-factor structure proposed by Allen et al. (2015) was not replicated. Instead, the data supported a unidimensional structure representing cumulative exposure to stressful or potentially traumatic life events. This unidimensional solution showed good fit and high internal consistency, confirming that the SLESQ-13 can be used as a global indicator of lifetime trauma exposure. The positive correlations with perceived stress further support its concurrent validity in this sample.

Regarding internalized stigma, a 23-item version of the Internalized LGBTQ+-phobia Scale (IHS-23), rather than the original 26-item version, was retained, with three subscales: public identification as LGBTQ+, internal perception of stigma, and social pressure. This structure is broadly consistent with the model proposed by Costa et al. (2013), although some items contributed weakly to fit indices. The refined subscales demonstrated satisfactory to excellent reliability, suggesting that the adapted measure captures both internal and relational dimensions of internalized stigma among LGBTQ+ individuals. At the same time, the less-than-optimal global fit indices indicate that further refinement and cross-validation of the scale are needed before it can be considered a definitive measure of internalized LGBTQ+-phobia in the Greek context.

In contrast to the generally satisfactory performance of the other instruments, the five-factor BFI-10 scale displayed poor model fit and low reliability for most traits. The intended Big Five structure was not reproduced: Agreeableness and Neuroticism showed weak or non-significant loadings, and internal consistency was inadequate, likely reflecting both translation issues and the inherent limitations of ultra-brief personality inventories. Consequently, a longer personality measure will be used in the final study to ensure adequate construct coverage and reliability.

The present study has several limitations. First, the sample size was modest and derived from convenience sampling, limiting statistical power and the generalizability of the findings to the broader Greek population. Moreover, exploratory and confirmatory factor analyses were conducted within the same sample, which may inflate model fit and requires replication in an independent sample. Second, the overall length of the questionnaire, which included multiple scales assessing both minority-specific and general stressors, may have contributed to

respondent fatigue and reduced attention, particularly toward the end of the survey. Third, although the internalized LGBTQ+-phobia scale was adapted to be inclusive of diverse sexual orientations and gender identities, the pilot sample included only specific combinations of transgender and sexual orientation categories, suggesting that some respondents may not have fully understood the distinctions between sexual orientation and gender identity. Future studies should examine potential differential item functioning across LGBTQ+ and non-LGBTQ+ participants, as well as among gender-expansive individuals compared with other LGBTQ+ subgroups. In addition, the lack of an LGBTQ+-phobia measure applicable to all participants, irrespective of sexual orientation and gender identity, limited the direct comparison of internalized stigma across groups. Finally, the pilot design did not allow for systematic comparison of alternative instruments measuring the same constructs (e.g., different depression or suicidality scales) within LGBTQ+ samples, which would be informative for instrument selection in future research.

Despite these limitations, the present pilot study achieved its main aim of evaluating the psychometric properties of instruments measuring mental health outcomes, minority stressors, and personality traits among LGBTQ+ and non-LGBTQ+ adults in Greece. Overall, the findings support the reliability and validity of the selected measures assessing stress, psychological distress, depression, suicidality, structural stigma, rejection sensitivity, internalized LGBTQ+-phobia, and exposure to stressful life events. The minority stress scales demonstrated satisfactory psychometric performance and theoretical coherence, reinforcing their relevance to minority stress theory and cross-cultural findings.

The results also underscore the importance of carefully assessing personality traits as potential moderators of stress-related mental health outcomes. The inadequate performance of the BFI-10 is consistent with literature highlighting the psychometric limitations of very brief personality inventories. For the forthcoming large-scale study, the use of an alternative instrument (e.g., BFI-44 or NEO-FFI) is recommended to enable more reliable and nuanced assessment of personality domains and their interaction with minority stress processes.

This pilot study contributes to the literature by providing preliminary validation of culturally adapted instruments that assess minority stress and mental health outcomes among Greek adults, including LGBTQ+ individuals. The demonstration that these minority stressors are measurable and theoretically consistent in this context lays the groundwork for larger, more representative studies. Future research should examine measurement invariance across subgroups defined by gender identity, age, and regional context, and explore longitudinal associations between minority stress, personality traits, and mental health outcomes.

Finally, the findings hold important clinical and public health implications for mental health assessment and intervention in Greece. By providing initial evidence on the reliability and validity of key psychometric instruments in a Greek sample that includes LGBTQ+ individuals, this study supports their use in clinical and community settings for the early identification of psychological distress, depressive symptoms, suicidality, and minority stress processes. Reliable and culturally appropriate measurement tools can help mental health professionals detect at-risk individuals, monitor symptom trajectories, and tailor interventions to address the unique stressors and social challenges faced by sexual and gender minorities. Moreover, the availability of validated Greek-language instruments enhances cross-cultural comparability in international research and promotes the inclusion of LGBTQ+ populations in evidence-based mental health practice. Integrating these measures into primary care screening, psychological services, and public health initiatives has the potential to strengthen early prevention efforts and improve access to culturally competent care for marginalized groups.

Conclusion

This pilot study provides initial evidence for the reliability and validity of instruments assessing mental health outcomes, minority stressors, and lifetime stressors among LGBTQ+ and non-LGBTQ+ adults in Greece. With the exception of the BFI-10, which showed inadequate reliability and will be replaced by a longer personality inventory, the scales demonstrated satisfactory factorial validity and internal consistency, supporting their use in subsequent large-scale research. The findings highlight the feasibility of applying minority stress frameworks to the Greek sociocultural context and underscore the importance of psychometrically sound, culturally adapted tools for understanding and addressing mental health disparities affecting sexual and gender minority populations.

Declarations

Conflict of Interest: The authors declare that they have no conflict of interest.

Ethics statement: The study protocol and participant information/informed consent materials were reviewed and approved by the Bioethics and Deontology Committee of the School of Medicine, Aristotle University of Thessaloniki, Greece (Protocol No. 175/2024; decision at meeting No. 6/16.04.2024; approval letter dated 22 April 2024). All participants provided written informed consent prior to participation. The study was conducted in accordance with the Declaration of Helsinki.

Informed Consent: Informed consent was obtained from all individual participants included in the study. Participants provided electronic consent before accessing the online questionnaire or signed a consent form for face-to-face administration.

Author Contributions (CRediT): *Conceptualization:* [Initials]; *Methodology:* [Initials]; *Formal analysis:* [Initials]; *Investigation:* [Initials]; *Data curation:* [Initials]; *Writing - original draft:* [Initials]; *Writing - review & editing:* [Initials].

Data Availability Statement: Due to the sensitive nature of the data involving a marginalized population (LGBTQ+ individuals) and the assurances of confidentiality and anonymity provided to participants during the

consent process, the raw dataset is not publicly available. De-identified data may be available from the corresponding author upon reasonable request and subject to ethical approval.
Funding: No funding was received for this study.

Acknowledgments: The authors would like to thank all the participants who dedicated their time to complete this survey.

REFERENCES

1. Alibudbud, R. (2022). Gender in mental health: Comparison of the rate and social factors of depression, anxiety, and stress among young adult Filipino heterosexual cisgender men and women and LGBT+ individuals. *International Journal of Social Psychiatry, 69*, 1–12.
2. Allen, J. G., Madan, A., & Fowler, J. C. (2015). Reliability and validity of the Stressful Life Events Screening Questionnaire among inpatients with severe neuropsychiatric illness. *Bulletin of the Menninger Clinic, 79*, 187–202.
3. Almadi, T., Cathers, I., Hamdan Mansour, A. M., & Chow, C. M. (2012). An Arabic version of the Perceived Stress Scale: Translation and validation study. *International Journal of Nursing Studies, 49*, 84–89.
4. Almeida, S., Camacho, M., Barahona-Corrêa, J. B., Oliveira, J., Lemos, R., da Silva, D. R., da Silva, J. A., Baptista, T. M., Grácio, J., & Oliveira-Maia, A. J. (2023). Criterion and construct validity of the Beck Depression Inventory (BDI-II) to measure depression in patients with cancer: The contribution of somatic items. *International Journal of Clinical and Health Psychology, 23*, 100350.
5. American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Author.
6. American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Author.
7. Andreou, E, Alexopoulos, E. C., Lionis, C., Varvogli, L., Gnardellis, C., Chrousos, G. P., & Darviri, C. (2011). Perceived Stress Scale: Reliability and validity study in Greece. *International Journal of Environmental Research and Public Health, 8*, 3287–3298.
8. Andreou, E., Plexousakis, S., Georgiadi, M., & Papadopoulos, O. (2022). Mental health problems and bullying victimization among sexual minority adolescents in Greek secondary schools. *Journal of Genetic Psychology, 1*, 1–14.
9. Angold, A., Costello, E. J., & Worthman, C. M. (1998). Puberty and depression: The roles of age, pubertal status and pubertal timing. *Psychological Medicine, 28*, 51–61.
10. Arnaud, B., Malet, L., Teissedre, F., Izaute, M., Moustafa, F., Geneste, J., Schmidt, J., Llorca, P. M., & Brousse, G. (2010). Validity study of Kessler's psychological distress scales conducted among patients admitted to French emergency departments for alcohol consumption-related disorders. *Alcoholism: Clinical and Experimental Research, 34*, 1–7.
11. Awang, Z. (2012). *A handbook on structural equation modelling (SEM) using AMOS Graphic* (5th ed.). Universiti Teknologi Mara Kelantan.
12. Bailey, J. M. (2019). The minority stress model deserves reconsideration, not just extension. *Archives of Sexual Behavior, 49*, 2265–2268.
13. Bariola, E., Lyons, A., Leonard, W., Pitts, M., Badcock, P., & Couch, M. (2015). Demographic and psychosocial factors associated with psychological distress and resilience among transgender individuals. *American Journal of Public Health, 105*, 2108–2116.
14. Beck, A. T., Steer, R. A., & Carbin, M. G. (1988). Psychometric properties of the Beck Depression Inventory: Twenty-five years of evaluation. *Clinical Psychology Review, 8*, 77–100.
15. Beck, A. T., & Steer, R. A. (1991). *Manual for the Beck Scale for Suicide Ideation*. Psychological Corporation.
16. Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. *Archives of General Psychiatry, 4*, 561–571.
17. Berenson, K. R., Gyurak, A., Ayduk, O., Downey, G., Garner, M. J., Mogg, K., Bradley, B. P., & Pine, D. S. (2009). Rejection sensitivity and disruption of attention by social threat cues. *Journal of Research in Personality, 43*, 1064–1072.
18. Bessaha, M. L. (2015). Factor structure of the Kessler Psychological Distress Scale (K6) among emerging adults. *Research on Social Work Practice, 27*, 616–624.
19. Blosnich, J. R., Marsiglio, M. C., Gao, S., Gordon, A. J., Shipherd, J. C., Kauth, M., Brown, G. R., & Fine, M. J. (2016). Mental health of transgender veterans in US states with and without discrimination and hate crime legal protection. *American Journal of Public Health, 106*, 534–540.
20. Boehmer, U., Jesdale, B. M., Streed, C. G., & Agénor, M. (2022). Intersectionality and cancer survivorship: Sexual orientation and racial/ethnic differences in physical and mental health outcomes among female and male cancer survivors. *Cancer, 128*, 284–291.
21. Boppana, S., & Gross, A. M. (2019). The impact of religiosity on the psychological well-being of LGBT Christians. *Journal of Gay and Lesbian Mental Health, 23*, 412–426.

22. Bradbury, J. (2013). Modelling stress constructs with biomarkers: The importance of the measurement model. *Clinical and Experimental Medical Sciences, 1*, 197–216.
23. Brandtzæg Godø, T., Bjørndal, Å., Fluge, I., Johannessen, R., & Lavdas, M. (2024). Personality traits, ideology, and attitudes toward LGBT people: A scoping review. *Journal of Homosexuality, 1*, 1–20.
24. Brooks, R. T., Beard, J., & Steel, Z. (2006). Factor structure and interpretation of the K10. *Psychological Assessment, 18*, 62–70.
25. Buckley, T. C., Parker, J. D., & Heggie, J. (2001). A psychometric evaluation of the BDI-II in treatment-seeking substance abusers. *Journal of Substance Abuse Treatment, 20*, 197–204.
26. Byrne, B. M. (1994). *Structural equation modeling with EQS and EQS/Windows*. Sage Publications.
27. Cai, H., Chen, P., Zhang, Q., Lam, M. I., Si, T. L., Liu, Y. F., Zheng, W. Y., Su, Z., Cheung, T., Jackson, T., Ungvari, G. S., Ren, Z., Li, X., Li, X. H., & Xiang, Y. T. (2024). Global prevalence of major depressive disorder in LGBTQ+ samples: A systematic review and meta-analysis of epidemiological studies. *Journal of Affective Disorders, 360*, 1–14.
28. Campos, R. C., & Gonçalves, B. (2011). The Portuguese version of the Beck Depression Inventory-II (BDI-II). *European Journal of Psychological Assessment, 27*, 258–264.
29. Cavale, J., Singh, D. C., & Hemchand, L. (2024). Male homosexuality and borderline personality disorder: A review. *Journal of Men's Health, 20*, 32–51.
30. Chan, R. C. H., & Leung, J. S. Y. (2023). Experiences of minority stress and their impact on suicidality among asexual individuals. *Journal of Affective Disorders, 325*, 794–803.
31. Charak, R., Cano-Gonzalez, I., Ronzon-Tirado, R., Schmitz, R. M., Tabler, J., Karsberg, S., Flores, A., & Ford, J. D. (2023). LGBTQ+ identity-related abuse during childhood and associations with depression and suicide behavior: Role of adulthood cisheterosexism and expressive suppression. *Child Abuse and Neglect, 145*, 106433.
32. Chaudhry, A., Hebert-Beirne, J., Alessi, E. J., Khuzam, M. Z., Mitchell, U., Molina, Y., Wasfie, D., Fox, S., & Abboud, S. (2024). Exploring the health impact of intersectional minority identity stressors on Arab sexual minority women migrants to the United States. *Qualitative Health Research, 34*.
33. Clark, K., Pachankis, J. E., Khoshnood, K., Bränström, R., Seal, D., Khoury, D., Fouad, F. M., Barbour, R., & Heimer, R. (2021a). Stigma, displacement stressors and psychiatric morbidity among displaced Syrian men who have sex with men and transgender women: A cross-sectional study in Lebanon. *BMJ Open, 11*, e046996.
34. Clark, K. A., Björkenstam, C., Kosidou, K., & Björkenstam, E. (2021b). Psychological distress, suicidal ideation, and suicide attempt among lesbian, gay, and bisexual immigrants: Population-based findings from the Stockholm Public Health Cohort. *Archives of Sexual Behavior, 50*, 3563–3574.
35. Clements-Nolle, K., Lensch, T, Baxa, A., Gay, C., Larson, S., & Yang, W. (2018). Sexual identity, adverse childhood experiences, and suicidal behaviors. *Journal of Adolescent Health, 62*, 198–204.
36. Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior, 24*, 385–396.
37. Cohen, S., & Williamson, G. M. (1988). Perceived stress in a probability sample of the United States. In S. Spacapan & S. Oskamp (Eds.), *The social psychology of health: Claremont Symposium on applied social psychology* (pp. 31–67). Sage.
38. Collet, S., Kiyar, M., Martens, K., Vangeneugden, J., Simpson, V. G., Guillamon, A., Mueller, S. C., & T'Sjoen, G. (2023). Gender minority stress in transgender people: A major role for social network. *Journal of Sexual Medicine, 20*, 905–917.
39. Corrigan, P., Markowitz, F., & Watson, A. (2004). Structural levels of mental illness stigma and discrimination. *Schizophrenia Bulletin, 30*, 481–491.
40. Costa, P. A., Pereira, H., & Leal, I. (2013). Internalized homonegativity, disclosure, and acceptance of sexual orientation in a sample of Portuguese gay and bisexual men, and lesbian and bisexual women. *Journal of Bisexuality, 13*, 229–244.
41. Davidson, J. D., Neilson, E. C., Staples, J. M., & Turner, R. B. (2024). Group differences in gender expression discrimination and depressive and anxiety symptoms among transgender and gender-expansive adults: The role of gender identity pride. *Bulletin of the Menninger Clinic, 88*, 214–238.
42. Denny, S., Lucassen, M. F. G., Stuart, J., Fleming, T, Bullen, P., Peiris-John, R., Rossen, F. V., & Utter, J. (2014). The association between supportive high school environments and depressive symptoms and suicidality among sexual minority students. *Journal of Clinical Child and Adolescent Psychology, 45*, 248–261.
43. Denovan, A., Dagnall, N., Dhingra, K., & Grogan, S. (2019). Evaluating the Perceived Stress Scale among UK university students: Implications for stress measurement and management. *Studies in Higher Education, 44*, 120–133.
44. Desjardins, G., Lelièvre-Blais, S., Samson-Daoust, E., Paslakis, G., Juster, R. P., & Aardema, F. (2025). Desiring men is risky: Rejection sensitivity predicts body dysmorphic disorder symptoms only in those attracted to men. *Current Psychology, 1*, 1–10.
45. Diez Roux, A. V. (2007). Neighborhoods and health: Where are we and where do we go from here? *Revue d'Épidémiologie et de Santé Publique, 55*, 13–21.
46. DiGuiseppi, G. T., Davis, J. P., Srivastava, A., Layland, E. K., Pham, D., & Kipke, M. D. (2022). Multiple minority stress and behavioral health among young Black and Latino sexual minority men. *LGBT Health, 9*, 114–121.

47. Dominguez-Lara, S., Merino-Soto, C., & Torres-Villalobos, G. (2022). Structural analysis and reliability of the Perceived Stress Scale in nursing professionals from Peru. *Enfermería Clínica, 32*, 152–160.
48. Donaldson, C. D., Stupplebeen, D. A., Wilkinson, M. L., Zhang, X., & Williams, R. J. (2023). Intersectional disparities in youth tobacco use by sexual and/or gender minority status and race/ethnicity. *Nicotine and Tobacco Research, 25*, 898–907.
49. Downey, G., & Feldman, S. I. (1996). Implications of rejection sensitivity for intimate relationships. *Journal of Personality and Social Psychology, 70*, 1327–1343.
50. Downey, G., Freitas, A. L., Michaelis, B., & Khouri, H. (1998). The self-fulfilling prophecy in close relationships: Rejection sensitivity and rejection by romantic partners. *Journal of Personality and Social Psychology, 75*, 545–560.
51. Drapeau, A., Marchand, A., & Beaulieu-Prévost, D. (2012). Epidemiology of psychological distress. In L. Labate (Ed.), *Mental illnesses: Understanding, prediction and control* (pp. 105–134). InTech.
52. Drydakis, N. (2021). Social rejection, family acceptance, economic recession and physical and mental health of sexual minorities. *EconStor, 1*, 1–12.
53. Easton, S. D., Safadi, N. S., Wang, Y., & Hasson, R. G. (2017). The Kessler Psychological Distress Scale: Translation and validation of an Arabic version. *Health and Quality of Life Outcomes, 15*, 215–225.
54. English, D., Boone, C. A., Carter, J. A., Talan, A. J., Busby, D. R., Moody, R. L., Cunningham, D. J., Bowleg, L., & Rendina, H. J. (2022). Intersecting structural oppression and suicidality among Black sexual minority male adolescents and emerging adults. *Journal of Research on Adolescence, 32*, 226–243.
55. Evans-Lacko, S., Brohan, E., Mojtabai, R., & Thornicroft, G. (2012). Association between public views of mental illness and self-stigma among individuals with mental illness in 14 European countries. *Psychological Medicine, 42*, 1741–1752.
56. Exline, J. J., Przeworski, A, Peterson, E. K., Turnamian, M. R., Stauner, N., & Uzdavines, A. (2021). Religious and spiritual struggles among transgender and gender-nonconforming adults. *Psychology of Religion and Spirituality, 13*, 276–286.
57. Fan, X., Thompson, B., & Wang, L. (1999). Effects of sample size, estimation methods, and model specification on structural equation modeling fit indexes. *Structural Equation Modeling, 6*, 56–83.
58. Feinstein, B. A. (2019). The rejection sensitivity model as a framework for understanding sexual minority mental health. *Archives of Sexual Behavior, 49*, 2247–2258.
59. Fořt, J., Benešová, D., Freudenfeld, P., Valentova, J. V., & Havlíček, J. (2024). Personality differences among men and women of different sexual orientations, including asexual and pansexual individuals. *SSRN Electronic Journal, 1*, 1–15.
60. Fountoulakis, K., Pantoula, E., Siamouli, M., Moutou, K., Gonda, X., Rihmer, Z., Iacovides, A., & Akiskal, H. (2011). The development of the Suicidality Risk Assessment Scale: A study in the general population. *Psychiatriki, 22*, 132–147. https://www.psychiatriki-journal.gr/documents/psychiatry/22.2-GR-2011-132.pdf
61. Fountoulakis, K. N., Karakatsoulis, G., Abraham, S., Adorjan, K., Ahmed, H. U., Alarcón, R. D., et al. (2022a). Results of the COVID-19 mental health international COMET-G study. *European Neuropsychopharmacology, 54*, 21–40.
62. Fountoulakis, K. N., Karakatsoulis, G. N., Abraham, S., Adorjan, K., Ahmed, H. U., Alarcón, R. D., et al. (2022b). The effect of lockdown and gender on anxiety, depression and suicidality during COVID-19: Data from the COMET-G study. *Psychiatry Research, 315*, 114702.
63. Fountoulakis, K. N., Pantoula, E., Siamouli, M., Moutou, K., Gonda, X., Rihmer, Z., Iacovides, A., & Akiskal, H. (2012). Development of the Risk Assessment Suicidality Scale (RASS): A population-based study. *Journal of Affective Disorders, 138*, 449–457.
64. Giannakou, M., Roussi, P., Kosmides, M. E., Kiosseoglou, G., & Garyfallos, G. (2013). Adaptation of the Beck Depression Inventory-II to the Greek population. *Hellenic Journal of Psychology, 10*, 120–146.
65. Ginting, H., Näring, G., van der Veld, W. M., Srisayekti, W., & Becker, E. S. (2013). Validating the Beck Depression Inventory-II in Indonesia's general population and coronary heart disease patients. *International Journal of Clinical and Health Psychology, 13*, 235–242.
66. Gomez, H. V., Araújo, L. F. de, & Pedroso, J. S. da. (2025). Homophobia and aging: Experiences of Brazilian gay men. *Journal of Homosexuality, 72*. Advance online publication.
67. Goodman, L. A., Corcoran, C., Turner, K., Yuan, N., & Green, B. L. (1998). Assessing traumatic event exposure: General issues and preliminary findings for the Stressful Life Events Screening Questionnaire. *Journal of Traumatic Stress, 11*, 521–542.
68. Green, B. L. (1996). Trauma History Questionnaire (self-report). In B. H. Stamm (Ed.), *Measurement of stress, trauma, and adaptation* (pp. 366–368). Sidran Press.
69. Green, B. L., Chung, J. Y., Daroowalla, A., Kaltman, S., & DeBenedictis, C. (2006). Evaluating the cultural validity of the Stressful Life Events Screening Questionnaire. *Violence Against Women, 12*, 1191–1213.
70. Grigoreva, D., & Szaszkó, B. (2024). Minority stress and psychological well-being in queer populations. *Scientific Reports, 14*, 27084–27091.
71. Grigsby, T. J., Lopez, A., Serafica, R., Stone, A. L., Salcido, R., Jr., & Schnarrs, P. W. (2024). Mental health and substance misuse indicators associated with first-time homelessness among a community sample of sexual and gender minority adults. *Behavioral Medicine, 50*, 181–185.

72. Hail-Jares, K., Cumming, C., Young, J. T., Borschmann, R., Lennox, N., & Kinner, S. A. (2023). Self-harm and suicide attempts among incarcerated lesbian, gay and bisexual people in Australia. *Australian and New Zealand Journal of Psychiatry, 57*, 562–571.
73. Hall, C. D., Harris, R., Burns, P., Girod, C., Yount, K. M., & Wong, F. Y. (2023). Utilizing latent class analysis to assess the association of intersectional stigma on mental health outcomes among young adult Black, Indigenous, and sexual minority women of color. *LGBT Health, 10*, 463–470.
74. Harkness, A., Weinstein, E. R., Mayo, D., Rodriguez-Diaz, C., & Safren, S. A. (2021). Latinx sexual minority men's behavioral, psychosocial, and medical experiences during COVID-19: Differences across immigration statuses. *Annals of LGBTQ Public and Population Health, 2*, 104–115.
75. Harper, L. A., Beck, K. C., Drazdowski, T. K., & Li, C. (2023). Sex and sexual identity differences in poly-tobacco use and psychological distress in US adults: Results from the National Health Interview Survey. *Nicotine and Tobacco Research, 25*, 19–27.
76. Hatzenbuehler, M. L. (2009). How does sexual minority stigma "get under the skin"? A psychological mediation framework. *Psychological Bulletin, 135*, 707–730.
77. Hatzenbuehler, M. L. (2014). Structural stigma and the health of lesbian, gay, and bisexual populations. *Current Directions in Psychological Science, 23*, 127–132.
78. Hatzenbuehler, M. L., Lattanner, M. R., McKetta, S., & Pachankis, J. E. (2024). Structural stigma and LGBTQ+ health: A narrative review of quantitative studies. *The Lancet Public Health, 9*, e109–e127.
79. Hatzenbuehler, M. L., & Link, B. G. (2014). Introduction to the special issue on structural stigma and health. *Social Science and Medicine, 103*, 1–6.
80. He, Y., Wang, Y., Liu, Y., Fan, L., Ouyang, L., Xiang, Z, Chen, X., Chen, R., & Wang, Y. (2023). Exploring the gap between self-reported transgender and gender dysphoria in Chinese youth. *Journal of Psychiatry and Brain Science, 8*, e230009.
81. Hendricks, M. L., & Testa, R. J. (2012). A conceptual framework for clinical work with transgender and gender nonconforming clients: An adaptation of the minority stress model. *Professional Psychology: Research and Practice, 43*, 460–467.
82. Herek, G. M. (2004). Beyond "homophobia": Thinking about sexual prejudice and stigma in the twenty-first century. *Sexuality Research and Social Policy, 1*, 6–24.
83. Hirshfield, S., Diaz, J. E., Thomas, P., Downing, M. J., Dangerfield, D. T., & Silver, M. (2024). Personality traits and eHealth study enrollment among racial and sexual minoritized men living with HIV. *AIDS and Behavior, 28*, 2650–2654.
84. Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*, 1–55.
85. Ibrahim, N., Aen, M., Amit, N., Said, Z., & Siau, C. S. (2022). Victimisation, depression and suicidal ideation among lesbian, gay and bisexual adults in Malaysia. *Malaysian Journal of Medical Sciences, 29*, 120–130.
86. Imran, N., Haider, I. I., Mustafa, A. B., Aamer, I., Kamal, Z., Rasool, G., et al. (2021). The hidden crisis: COVID-19 and impact on mental health of medical students in Pakistan. *Middle East Current Psychiatry, 28*, 1–6.
87. Innamorati, M., Balsamo, M., Fairfield, B., Fabbricatore, M., Tamburello, A., & Saggino, A. (2014). Construct validity and reliability of the Adult Rejection Sensitivity Questionnaire: A comparison of three factor models. *Depression Research and Treatment, 2014*, 972424.
88. Iurina, E., & Kosonogov, V. (2025). Validation of the Russian version of the Adult Rejection Sensitivity Questionnaire (A-RSQ): Factor structure and associations with psychological constructs. *Asian Journal of Psychiatry, 112*, 104703.
89. Jabson-Tree, J. M., & Patterson, J. G. (2019). A test of feasibility and acceptability of online mindfulness-based stress reduction for lesbian, gay, and bisexual women and men at risk for high stress: Pilot study. *JMIR Mental Health, 6*, e15048.
90. Janković, J., Slijepčević, V., & Miletić, V. (2020). Depression and suicidal behavior in LGB and heterosexual populations in Serbia: A cross-sectional study. *PLOS ONE, 15*, e0234806.
91. Joiner, T. (2005). *Why people die by suicide*. Harvard University Press.
92. Jovanovic, V., & Gavrilov-Jerkovic, V. (2015). More than a (negative) feeling: Validity of the Perceived Stress Scale in Serbian clinical and non-clinical samples. *Psihologija, 48*, 5–18.
93. Jovičić, M., Hinić, D., Drašković, M., Obradović, A., Nikić-Đuričić, K., Rančić, N., et al. (2016). Psychometric properties of the RASS scale in the Serbian population. *Journal of Affective Disorders, 189*, 134–140.
94. Juárez-García, A., Merino-Soto, C., Brito-Ortiz, J. F., Nava-Gómez, M. E., & Monroy-Castillo, A. (2021). Is it the Perceived Stress Scale (PSS) undimensional and invariant? A bifactor analysis in Mexican adults. *Current Psychology, 42*.
95. Källström, M., Nousiainen, N., Jern, P., Nickull, S., & Gunst, A. (2022). Mental health among sexual and gender minorities: A Finnish population-based study of anxiety and depression discrepancies between individuals of diverse sexual orientations and gender minorities and the majority population. *PLOS ONE, 17*, e0276550.
96. Kamen, C., Mustian, K. M., Dozier, A., Bowen, D. J., & Li, Y. (2015). Disparities in psychological distress impacting lesbian, gay, bisexual and transgender cancer survivors. *Psycho-Oncology, 24*, 1384–1391.

97. Kaniuka, A., Pugh, K. C., Jordan, M., Brooks, B., Dodd, J., Mann, A. K., et al. (2019). Stigma and suicide risk among LGBTQ people: Roles of anxiety, depression, and community connectedness. *Journal of Gay and Lesbian Mental Health, 23*, 205–220.
98. Kaprinis, S., & Charalampakis, A. (2022). Is depression and suicidality a matter of sexual orientation? An empirical investigation in Greece. *Archives of Clinical and Biomedical Research, 6*, 826–835.
99. Kaprinis, S., & Charalampakis, A. (2024). Predictors of attitudes towards LGB in Greece. *Journal of Psychiatry Studies, 5*, 1–12.
100. Katsarou, A., Panagiotakos, D., Zafeiropoulou, A., Vryonis, M., Skoularigis, I., Tryposkiadis, F., & Papageorgiou, C. (2012). Validation of a Greek version of PSS-14: A global measure of perceived stress. *Central European Journal of Public Health, 20*, 104–109.
101. Kelly, L. M., Shepherd, B. F., & Becker, S. J. (2021). Elevated risk of substance use disorder and suicidal ideation among Black and Hispanic lesbian, gay, and bisexual adults. *Drug and Alcohol Dependence, 226*, 108848.
102. Kessler, R. C., Andrews, G., Colpe, L. J., Hiripi, E., Mroczek, D. K., Normand, S. L. T., et al. (2002). Short screening scales to monitor population prevalences and trends in nonspecific psychological distress. *Psychological Medicine, 32*, 959–976.
103. Khanolkar, A. R., Frost, D. M., Tabor, E, Redclift, V., Amos, R., & Patalay, P. (2023). Ethnic and sexual identity-related inequalities in adolescent health and well-being in a national population-based study. *LGBT Health, 10*, 26–40.
104. Khanolkar, A. R., & Mazhari, T. (2024). Ethnic and sexual orientation inequalities in mental health–obesity comorbidity, self-harm, and attempted suicide among British adolescents. *Social Psychiatry and Psychiatric Epidemiology, 59*, 1471–1482.
105. Kim, S. G., Lefevor, G. T., & Skidmore, S. J. (2024). Mitigating the impact of religious family expectations on depression among sexual and gender minorities: The role of authenticity. *Journal of Homosexuality, 1*, 1–25.
106. Kim, Y. E., & Lee, B. (2024). Factor structure and construct validity of the Beck Depression Inventory-II in Korean preschool teachers. *OBM Neurobiology, 8*, 1–14.
107. King, W. M., Jadwin-Cakmak, L., Trammell, R., & Gamarel, K. E. (2023). Structural vulnerability as a framework for transgender health research: Findings from a community needs assessment of transgender women of colour in Detroit. *Culture, Health and Sexuality, 25*, 681–697.
108. Ko, J., & Harrington, D. (2016). Factor structure and validity of the K6 scale for adults with suicidal ideation. *Journal of the Society for Social Work and Research, 7*, 43–63.
109. Koğar, E. Y., & Koğar, H. (2024). Systematic review and meta-analytic CFA of the Perceived Stress Scale (PSS-10 and PSS-14). *Stress and Health, 40*, 1–18.
110. Koss, M. P., & Oros, C. J. (1982). Sexual Experiences Survey: A research instrument investigating sexual aggression and victimization. *Journal of Consulting and Clinical Psychology, 50*, 455–457.
111. Krueger, E. A., Holloway, I. W., Lightfoot, M., Lin, A., Hammack, P. L., & Meyer, I. H. (2020). Psychological distress, stigma, and HIV prevention among sexual minority men. *LGBT Health, 7*, 190–197.
112. Krueger, E. A., Meyer, I. H., & Upchurch, D. M. (2018). Sexual orientation differences in perceived stress and depressive symptoms among young adults in the United States. *LGBT Health, 5*, 242–249.
113. Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer Publishing Company.
114. Lee, B., & Jeong, H. I. (2019). Construct validity of the Perceived Stress Scale (PSS-10) in a sample of early childhood teacher candidates. *Psychiatry and Clinical Psychopharmacology, 29*, 76–82.
115. Levandowski, B. A., Miller, S. B., Ran, D., Pressman, E. A., & Van der Dye, T. (2022). Piling it on: Perceived stress and lack of access to resources among US-based LGBTQ+ community members during the COVID-19 pandemic. *PLOS ONE, 17*, e0271162.
116. Levi-Belz, Y., Peleg, D., & Ifrah, K. (2022). An integrative psychological model of risk factors for suicidal ideation and behavior among Israeli LGBT individuals. *Omega, 90*, 382–404.
117. Li, M., Chau, K., Calabresi, K., Wang, Y., Wang, J., Fritz, J., & Tseng, T. S. (2024). Effect of minority stress processes on smoking for LGBTQ individuals: A systematic review. *LGBT Health, 11*, 583–605.
118. Liao, L., Luo, L., & Tang, Q. (2015). Gender diversity, board independence, environmental committee and greenhouse gas disclosure. *British Accounting Review, 47*, 409–424.
119. Lim, G., Melendez-Torres, G. J., Amos, N., Anderson, J., Norman, T., Power, J., et al. (2024). Psychological distress mediates the link between bullying and truancy in Australian LGBQ+ adolescents with homelessness experiences. *Psychology and Sexuality, 16*, 1–15.
120. Link, B. G., & Phelan, J. C. (2001). Conceptualizing stigma. *Annual Review of Sociology, 27*, 363–385.
121. Liu, Q., Nestor, B. A., Eckstrand, K. L., & Cole, D. A. (2024). Stress proliferation in ethnoracial disparities of mental health among U.S. sexual minority adults. *Cultural Diversity and Ethnic Minority Psychology, 30*, 553–565.
122. Livingston, J. D. (2013). *Mental illness-related structural stigma: The downward spiral of systemic exclusion*. Mental Health Commission of Canada. https://www.mentalhealthcommission.ca
123. López de Lara, D., Pérez Rodríguez, O., Cuellar Flores, I., Pedreira Masa, J. L., Campos-Muñoz, L., Cuesta Hernández, M., & Ramos Amador, J. T. (2020). Psychosocial assessment in transgender adolescents. *Anales de Pediatría, 93*, 41–48.

124. López, G., & Yeater, E. A. (2018). Comparisons of sexual victimization experiences among sexual minority and heterosexual women. *Journal of Interpersonal Violence, 36*, 088626051878720.
125. López, G., Yeater, E. A., Veldhuis, C. B., Venner, K. L., Verney, S. P., & Hughes, T. L. (2022). Sexual assault, psychological distress, and protective factors in a community sample of Black, Latinx, and White lesbian and bisexual women. *Journal of Interpersonal Violence, 38*, 088626052210905.
126. Lord, K. A., Liverant, G. I., Stewart, J, Hayes-Skelton, S. A., & Suvak, M. K. (2022). Evaluation of the construct validity of the Adult Rejection Sensitivity Questionnaire. *Psychological Assessment, 34*, 1062–1073.
127. Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the DASS with the Beck inventories. *Behaviour Research and Therapy, 33*, 335–343.
128. Luu, X., Tran, M. R., Johnson, N. A., & Hutchesson, M. J. (2024). Factors associated with psychological distress among sexuality and/or gender diverse university students in Australia: A cross-sectional study. *Mental Health and Prevention, 37*, 200386.
129. Ma, C., & Li, J. (2024). Perceived stress and outness: Examining the coping mediation framework among Chinese LGBTQ+ community. *Behavioral Sciences, 14*, 978–988.
130. Mahjoubi, H., Mtiraoui, A., Mallouli, M., Zedini, C., & Nakhli, J. (2024). Discrimination, heterosexism and perceived stress among young LGBT Tunisians: Unveiling the moderation effects of self-esteem. *International Journal of Sexual Health, 36*, 636–645.
131. Maiolatesi, A. J., Clark, K. A., & Pachankis, J. E. (2022). Rejection sensitivity across sex, sexual orientation, and age: Measurement invariance and latent mean differences. *Psychological Assessment, 34*.
132. Marshal, M. P., Dietz, L. J., Friedman, M. S., Stall, R., Smith, H. A., McGinley, J., et al. (2011). Suicidality and depression disparities between sexual minority and heterosexual youth: A meta-analytic review. *Journal of Adolescent Health, 49*, 115–123.
133. McElroy, J. A., Wintemberg, J. J., Cronk, N. J., & Everett, K. D. (2015). Resilience, perceived stress, and predictors of depressive symptoms in sexual and gender minority youth and adults. *Psychology and Sexuality, 7*, 116–130.
134. McGuire, F. H., Beccia, A. L., Peoples, J. N., Williams, M. R., Schuler, M. S., & Duncan, A. E. (2024). Depression at the intersection of race/ethnicity, sex/gender, and sexual orientation in U.S. adults: A design-weighted intersectional MAIHDA. *American Journal of Epidemiology, 193*, 1662–1674.
135. McPherson, L. E., Svetaz, M. V., Martin, C. L., Miller, K. K., & Eisenberg, M. E. (2023). Latine transgender/gender diverse adolescents: Protective factors against emotional distress. *LGBT Health, 10*, 220–227.
136. Meyer, I. H. (2003). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: Conceptual issues and research evidence. *Psychological Bulletin, 129*, 674–697.
137. Meyer, I. H., Luo, F., Wilson, B. D. M., & Stone, D. M. (2019). Sexual orientation enumeration in state antibullying statutes: Associations with bullying and suicidality among youth. *LGBT Health, 6*, 9–14.
138. Michaelides, M. P., Christodoulou, A., Kkeli, N., Karekla, M., & Panayiotou, G. (2016). Factorial structure of the Perceived Stress Scale and implications for scoring. *European Review of Applied Psychology, 66*, 309–316.
139. Miller, C. T., Grover, K. W., Bunn, J. Y., & Solomon, S. E. (2011). Community norms about suppression of AIDS-related prejudice and perceptions of stigma by people with HIV/AIDS. *Psychological Science, 22*, 579–583.
140. Miller, G. H., Marquez-Velarde, G., Lindstrom, E. D., Keith, V. M., & Brown, L. E. (2022). Neighborhood cohesion and psychological distress across race and sexual orientation. *SSM – Population Health, 18*, 101134.
141. Morandini, J., Strudwick, J., Menzies, R., & Dar-Nimrod, I. (2023). Differences between Australian bisexual and pansexual women: Assessment of minority stressors and psychological outcomes. *Psychology and Sexuality, 14*, 233–251.
142. Mournet, A. M., Kellerman, J. K., Garner, R. C., & Kleiman, E. M. (2024). Suicidal thoughts and behaviors among autistic transgender or gender-nonconforming US college students. *JAMA Network Open, 7*, e2438345.
143. Mozumder, M. K. (2017). Validation of Bengali perceived stress scale among LGBT population. *BMC Psychiatry, 17*.
144. Norris, F. H. (1990). Screening for traumatic stress: A scale for use in the general population. *Journal of Applied Social Psychology, 20*, 1704–1715.
145. Ntonias, S., & Demertzis, I. (1983). Standardization of depressive symptomatology using the Beck Depression Inventory. *Proceedings of the 10th Panhellenic Congress of Neurology and Psychiatry, 1*, 486–492.
146. Panchankis, J. E., Hatzenbuehler, M. L., Bränström, R., Schmidt, A. J., Berg, R. C., Jonas, K., Pitoňák, M., Baros, S., & Weatherburn, P. (2021). Structural stigma and sexual minority men's depression and suicidality: A multilevel examination of mechanisms and mobility across 48 countries. *Journal of Abnormal Psychology, 130*, 713–726.
147. Panfil, A. L., Lungeanu, D., Tamasan, S., Bredicean, C, Papava, I., Smirnova, D., & Fountoulakis, K. N. (2022). Suicidality related to the COVID-19 lockdown in Romania: Structural equation modeling. *Frontiers in Psychiatry, 13*.
148. Pangtey, R., Basu, S., Meena, G. S., & Banerjee, B. (2020). Perceived stress and its epidemiological and behavioral correlates in an urban area of Delhi, India: A community-based cross-sectional study. *Indian Journal of Psychological Medicine, 42*, 80–86.

149. Parchem, B., Rudo-Stern, J., Bratland, L., Molock, S. D., & Rider, G. N. (2025). Firearm access and socio-structural factors related to suicidality among youth with diverse sexual, gender, and racial identities. *Archives of Suicide Research, 29*, 252–272.
150. Park, S. Y., & Colvin, K. F. (2019). Psychometric properties of a Korean version of the Perceived Stress Scale (PSS) in a military sample. *BMC Psychology, 7*.
151. Pattison, R., Puyat, J. H., Giesbrecht, A., Zenone, M., Mathias, S., & Barbic, S. (2021). Examining mental health differences between transgender, gender nonconforming, and cisgender young people in British Columbia. *Frontiers in Psychiatry, 12*.
152. Perera, M. J., Brintz, C. E., Birnbaum-Weitzman, O., Penedo, F. J., Gallo, L. C., Gonzalez, P., Gouskova, N., Isasi, C. R., Navas-Nacher, E. L., Perreira, K. M., Roesch, S. C., Schneiderman, N., & Llabre, M. M. (2017). Factor structure of the Perceived Stress Scale-10 (PSS) across English and Spanish language responders in the HCHS/SOL Sociocultural Ancillary Study. *Psychological Assessment, 29*, 320–328.
153. Pitoňák, M., Chomynová, P., & Mravčík, V. (2020). Substance use, mental health, and life satisfaction in Czech straight and sexual-minority population. *European Journal of Public Health, 30*(Suppl. 5).
154. Platt, L., & Scheitle, C. (2018). Sexual orientation and psychological distress: Differences by race and gender. *Journal of Gay & Lesbian Mental Health, 22*, 204–225.
155. Posner, K., Brown, G. K., Stanley, B., Brent, D. A., Yershova, K. V., Oquendo, M. A., Currier, G. W., Melvin, G. A., Greenhill, L., Shen, S., & Mann, J. J. (2011). The Columbia–Suicide Severity Rating Scale: Initial validity and internal consistency findings from three multisite studies with adolescents and adults. *American Journal of Psychiatry, 168*, 1266–1277.
156. Puckett, J. A., Newcomb, M. E., Ryan, D. T., Swann, G., Garofalo, R., & Mustanski, B. (2016). Internalized homophobia and perceived stigma: A validation study of stigma measures in a sample of young men who have sex with men. *Sexuality Research and Social Policy, 14*, 1–16.
157. Puckett, J. A., Woodward, E. N., Mereish, E. H., & Pantalone, D. W. (2015). Parental rejection following sexual orientation disclosure: Impact on internalized homophobia, social support, and mental health. *LGBT Health, 2*, 265–269.
158. Ramadas, L., Wawrziczny, É., & Nandrino, J. L. (2025). Adult Rejection Sensitivity Questionnaire: Psychometric properties and factor structure of the French version. *Journal of Psychopathology and Behavioral Assessment, 47*.
159. Rammstedt, B., & John, O. P. (2007). Measuring personality in one minute or less: A 10-item short version of the Big Five Inventory in English and German. *Journal of Research in Personality, 41*, 203–212.
160. Rammstedt, B., Lechner, C. M., & Danner, D. (2021). Short forms do not fall short. *European Journal of Psychological Assessment, 37*, 1–10.
161. Rammstedt, B., Roemer, L., & Lechner, C. M. (2023). Consistency of the structural properties of the BFI-10 across 16 samples from eight large-scale surveys in Germany. *European Journal of Psychological Assessment*.
162. Randolph, C., & Leung, J. M. (2022). Monosexism as an additional dimension of minority stress affecting mental health among bisexual and pansexual individuals in Hong Kong: The role of gender and sexual identity integration. *Journal of Sex Research, 60*, 704–717.
163. Ranta, J. P. J., Kaltiala, R., Kraav, S. L., Therman, S., Kekkonen, V., Kivimäki, P., Kajavuori, P., & Tolmunen, T. (2025). Depression and anxiety among transgender-identifying adolescents in psychiatric outpatient care. *International Journal of Adolescent Medicine and Health*.
164. Reis, D., Lehr, D., Heber, E., & Ebert, D. D. (2019). The German version of the Perceived Stress Scale (PSS-10): Evaluation of dimensionality, validity, and measurement invariance with exploratory and confirmatory bifactor modeling. *Assessment, 26*, 1246–1259.
165. Resnick, H. S., Kilpatrick, D. G., Dansky, B. S., Saunders, B. E., & Best, C. L. (1993). Prevalence of civilian trauma and posttraumatic stress disorder in a representative national sample of women. *Journal of Consulting and Clinical Psychology, 61*, 984–991.
166. Reyes, M. E. S., Davis, R. D., Dacanay, P. M. L., Antonio, A. S. B., Beltran, J. S. R., Chuang, M. D., & Leoncito, A. L. I. (2017). The presence of self-stigma, perceived stress, and suicidal ideation among selected LGBT Filipinos. *Psychological Studies, 62*, 284–290.
167. Rogers, L. M., Hom, M. A., Janakiraman, R., & Joiner, T. E. (2021). Examination of minority stress pathways to suicidal ideation among sexual minority adults: The moderating role of LGBT community connectedness. *Psychology of Sexual Orientation and Gender Diversity, 8*, 38–47.
168. Rogowska, A. M., & Cisek, A. (2024). Minority stress, perceived social support, and depression in people diverse in sexual and gender minority status. *Psychology and Sexuality, 15*, 679–693.
169. Rosario, M., Schrimshaw, E., & Hunter, J. (2005). Psychological distress following suicidality among gay, lesbian, and bisexual youths: Role of social relationships. *Journal of Youth and Adolescence, 34*, 149–161.
170. Ross, M. W., & Rosser, S. (1996). Measurement and correlates of internalized homophobia: A factor analytic study. *Journal of Clinical Psychology, 52*, 15–21.
171. Russell, D. E. H. (1986). *The secret trauma: Incest in the lives of girls and women*. Basic Books.
172. Salerno, J. P., & Zambrana, R. E. (2024). Depression disparities among sexual minority faculty of color in the United States. *Psychiatry Research, 339*, 116053.

173. Sampasa-Kanyinga, H., Zamorski, M. A., & Colman, I. (2018). The psychometric properties of the 10-item Kessler Psychological Distress Scale (K10) in Canadian military personnel. *PLOS ONE, 13*, e0196562.
174. Sanders, E. K., & McCartney Chalk, H. (2016). Predictors of psychological outcomes in nonheterosexual individuals. *Psi Chi Journal of Psychological Research, 21*, 100–110.
175. Septarini, N. W., Hendriks, J., Maycock, B., & Burns, S. (2021). Psychological distress and happiness among MSM and transgender people during COVID-19. *Frontiers in Public Health, 9*, 647548.
176. Shenkman, G., Ifrah, K., & Shmotkin, D. (2021). The moderation of socio-demographics in physical and mental health disparities among Israeli gay and heterosexual middle-aged and older men. *Aging & Mental Health, 26*, 1061–1068.
177. Shepherd, B. F., Rentería, R., Capielo Rosario, C., & Brochu, P. M. (2025). O te peinas, o te haces rolos: Intersectional discrimination, identity conflict, and mental health among Latinx sexual minoritized adults. *Cultural Diversity & Ethnic Minority Psychology, 31*, 138–150.
178. Singh, G. K., Lee, H., & Daus, G. P. (2022). Prevalence and sociodemographic and behavioral correlates of psychological distress among lesbian, gay, and bisexual adults in the United States, 2013–2018. *International Journal of Translational Medical Research and Public Health, 6*.
179. Smolenski, D. J., Diamond, P. M., Ross, M. W., & Rosser, S. (2010). Revision, criterion validity, and multigroup assessment of the Reactions to Homosexuality Scale. *Journal of Personality Assessment, 92*, 568–576.
180. Standley, C. J., & Foster-Fishman, P. (2021). Intersectionality, social support, and youth suicidality: A socioecological approach to prevention. *Suicide and Life-Threatening Behavior, 51*, 203–211.
181. Straus, M. (1989). Measuring intra-family conflict and violence: The Conflict Tactics Scales. In M. Straus & R. Gelles (Eds.), *Physical violence in American families: Risk factors and adaptations to violence in 8,145 families* (pp. 29–47). Transaction Books.
182. Sunderland, M., Mahoney, A., & Andrews, G. (2012). Investigating the factor structure of the Kessler Psychological Distress Scale in community and clinical samples of the Australian population. *Journal of Psychopathology and Behavioral Assessment, 34*, 253–259.
183. Syunyakov, T., Pavlichenko, A., Morozov, P., Fedotov, I., Filatova, V., Gayduk, A., Ignatenko, Y., Spikina, A., Yashikhina, A., Patsali, M., Fountoulakis, K., & Smirnova, D. (2022). Modeling suicidality risks and understanding the phenomenon of suicidality under the loupe of pandemic context: National findings of the COMET-G study in the Russian population. *Consortium Psychiatricum, 3*, 15–36.
184. Taylor, J. M. (2015). Psychometric analysis of the ten-item Perceived Stress Scale. *Psychological Assessment, 27*, 90–101.
185. Thalmayer, A. G., Saucier, G., & Eigenhuis, A. (2011). Comparative validity of brief to medium-length Big Five and Big Six personality questionnaires. *Psychological Assessment, 23*, 995–1009.
186. Thomas, J. E., Pasch, K. E., Marti, C. N., Hinds, J. T., Wilkinson, A. V., & Loukas, A. (2022). Trajectories of depressive symptoms among young adults in Texas 2014–2018: A multilevel growth curve analysis using an intersectional lens. *Social Psychiatry and Psychiatric Epidemiology, 57*, 749–760.
187. Tikka, S. K., Malathesh, B. C., Sahoo, D. P., Bhatia, V., Sreepada, N., & Meena, S. K. (2022). Factor structure of the Telugu version of the Insomnia Severity Index administered to primary care health workers of rural Telangana during the COVID-19 pandemic. *The Primary Care Companion for CNS Disorders, 24*.
188. Timmins, L., Rimes, K., & Rahman, Q. (2019). Minority stressors, rumination, and psychological distress in lesbian, gay, and bisexual individuals. *Archives of Sexual Behavior, 49*, 661–680.
189. Timmins, L., Rimes, K., & Rahman, Q. (2020). Minority stressors, rumination, and psychological distress in lesbian, gay, and bisexual individuals. *Archives of Sexual Behavior, 49*, 661–680.
190. Tucker, L. R., & Lewis, C. (1973). A reliability coefficient for maximum likelihood factor analysis. *Psychometrika, 38*, 1–10.
191. Valentine, S. E., Livingston, N. A., Salomaa, A. C., & Shipherd, J. C. (2025). *Trauma, discrimination and PTSD among LGBTQ+ people*. National Center for PTSD. https://www.ptsd.va.gov/professional/treat/specific/trauma_discrimination_lgbtq.asp
192. Vleioras, G., Andreou, E., & Papadopoulos, O. (2021). Differences in mental health and bullying victimization experiences between youth of different sexualities: A Bayesian perspective. *Journal of Aggression, Maltreatment and Trauma, 31*, 1–18.
193. Vosvick, M., & Stem, W. (2019). Psychological quality of life in a lesbian, gay, bisexual, transgender sample: Correlates of stress, mindful acceptance, and self-esteem. *Psychology of Sexual Orientation and Gender Diversity, 6*, 34–41.
194. Vrana, S., & Lauterbach, D. (1994). Prevalence of traumatic events and post-traumatic psychological symptoms in a nonclinical sample of college students. *Journal of Traumatic Stress, 7*, 289–302.
195. Wang, W., Bian, Q., Zhao, Y., Li, X., Wang, W., Du, J., Zhang, G., Zhou, Q., & Zhao, M. (2014). Reliability and validity of the Chinese version of the Patient Health Questionnaire (PHQ-9) in the general population. *General Hospital Psychiatry, 36*, 539–544.
196. Wang, Y., Miao, N., & Chang, S. (2020). Internalized homophobia, self-esteem, social support and depressive symptoms among sexual and gender minority women in Taiwan: An online survey. *Journal of Psychiatric and Mental Health Nursing, 28*, 601–610.

197. Wang, Y. C., Hoatson, T., Stamoulis, C., Herman, J., Reisner, S. L., Meyer, I. H., & Katz-Wise, S. L. (2024). Psychological distress and suicidality among transgender young adults in the United States. *Journal of Adolescent Health, 74*.
198. Watson, R. J., Caba, A., Lawrence, S. E., Renley, B. M., McCauley, P. S., Wheldon, C. W., Eaton, L. A., Russell, S. T., & Eisenberg, M. E. (2024). Examining mental health and bullying concerns at the intersection of sexuality, gender, race, and ethnicity among a national sample of sexual and gender diverse youth. *LGBT Health, 11*, 20–27.
199. Whisman, M. A., Perez, J. E., & Ramel, W. (2000). Factor structure of the Beck Depression Inventory–Second Edition (BDI-II) in a student sample. *Journal of Clinical Psychology, 56*, 545–551.
200. Wiglesworth, A., Clement, D. N., Wingate, L. R., & Klimes-Dougan, B. (2022). Understanding suicide risk for youth who are both Black and Native American: The role of intersectionality and multiple marginalization. *Suicide and Life-Threatening Behavior, 52*, 668–682.
201. Wilson, B., Krueger, E., Pollitt, A., & Bostwick, W. (2021). Partnership status and mental health in a nationally representative sample of sexual minorities. *Psychology of Sexual Orientation and Gender Diversity, 9*, 190–200.
202. Wootton, A. R., Sterzing, P. R., Mericle, A. A., Drabble, L. A., Cahoon, L. R., & Hughes, T. L. (2025). Resilience through social support: An intersectional analysis of sexual minority women's social resources for wellbeing. *Journal of Homosexuality, 72*, 1–21.
203. Wu, C., Chau, P. H., & Choi, E. P. H. (2023). Quality of life and mental health of Chinese sexual and gender minority women and cisgender heterosexual women: Cross-sectional survey and mediation analysis. *JMIR Public Health and Surveillance, 9*, e42203.
204. Wu, S. M., & Amtmann, D. (2013). Psychometric evaluation of the Perceived Stress Scale in multiple sclerosis. *ISRN Rehabilitation, 2013*, 1–9.
205. Yang, W. H., Liu, S. L., & Zhou, T. (2014). Reliability and validity of the Chinese version of the Beck Depression Inventory-II in Chinese adolescents. *Chinese Journal of Clinical Psychology, 22*, 240–245.
206. Yolaç, E., & Meriç, M. (2020). Internalized homophobia and depression levels in LGBT individuals. *Perspectives in Psychiatric Care, 57*, 304–310.