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**Sexual Distress Scale–Short Form
(SDS-SF): Psychometric Validation
Study in Portuguese Samples**
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Universidade do Porto
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**SEXUAL DISTRESS SCALE–SHORT FORM (SDS-SF): PSYCHOMETRIC
VALIDATION IN PORTUGUESE SAMPLES**

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Resumo

A Escala de Distress Sexual (SDS), bem como as suas versões revista (SDS-R) e curta (SDS-SF) estão entre os instrumentos de autoavaliação mais utilizados para avaliar o distress sexual. Até ao momento, apenas a SDS e a SDS-R estão disponíveis para uso em Portugal. O presente estudo teve como objetivo validar a SDS-SF em pessoas portuguesas do sexo feminino e masculino, com e sem problemas sexuais causadores de distress, cisheterossexuais e LGBT. Uma amostra de 782 participantes, com idades entre 18 e 72 anos, foi utilizada para examinar as propriedades psicométricas da SDS-SF portuguesa. As pessoas participantes preencheram um inquérito que incluía um questionário sociodemográfico e de saúde, a versão portuguesa da SDS-SF e medidas de função sexual, satisfação sexual, satisfação no relacionamento e distress psicológico. Os resultados indicaram que a SDS-SF portuguesa avalia um domínio geral de distress sexual e revela uma consistência interna excelente. Mostraram ainda boas evidências de validade com base no conteúdo e nas relações com outras variáveis. O distress sexual foi associado a uma pior função e satisfação sexual, com maior distress psicológico e menor satisfação no relacionamento. Clínicos e investigadores podem agora utilizar a SDS-SF em Portugal para avaliar e comparar o distress sexual entre pessoas do sexo feminino e masculino, pessoas com e sem problemas sexuais causadores de distress e pessoas cisheterossexuais e LGBT, independentemente da função sexual.

Palavras-chave: distress sexual; escala de distress sexual–versão curta; confiabilidade; validade; Portugal.

Abstract

The Sexual Distress Scale (SDS), as well as its revised (SDS-R) and short (SDS-SF) versions, are among the most widely used self-assessment tools to evaluate sexual distress. To date, only the SDS and SDS-R are available for use in Portugal. The present study aimed to validate the SDS-SF in Portuguese females and males, with and without sexual distressing problems, cisheterosexual and LGBT individuals. A sample of 782 participants, aged between 18 and 72 years, was used to examine the psychometric properties of the Portuguese SDS-SF. Participants completed a survey that included a sociodemographic and health questionnaire, the Portuguese version of the SDS-SF, and measures of sexual function, sexual satisfaction, relationship satisfaction, and psychological distress. The results indicated that the Portuguese SDS-SF assesses a general domain of sexual distress and demonstrates excellent internal consistency. They also showed good evidence of validity based on content and relationships with other variables. Sexual distress was associated with poorer sexual function and satisfaction, greater psychological distress, and lower relationship satisfaction. Clinicians and researchers can now use the SDS-SF in Portugal to assess and compare sexual distress among females and males, people with and without sexual distressing problems, as well as cisheterosexual and LGBT individuals, regardless of sexual function.

Keywords: sexual distress; sexual distress scale—short form; reliability; validity; Portugal.

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Introduction

Sexual Health, Sexual Dysfunction and Sexual Distress

Sexual health, an important dimension of an individual's general health, is a state of overall well-being that includes physical, emotional, mental and social aspects in the context of sexuality; it is more than just the lack of sexual dysfunction or other sexual health issues (Diamond & Huebner, 2012; Sánchez-Fuentes et al., 2014; Stephenson & Meston, 2015). Thus, the absence of sexual dysfunction, *per se*, is not enough to define sexual health.

Sexual dysfunction is influenced by biophysiological, psychological, social and interpersonal factors (McCabe et al., 2010) and it is typically characterized by a disturbance in the ability to respond sexually or to experience sexual pleasure. The experience of sexual distress refers to negative emotional responses (e.g., anxiety, bother, frustration, guilt or worry) related to the subjective evaluation of one's own sexual life (Santos-Iglesias et al., 2018a).

The experience of sexual distress has been associated with indices of poorer health and well-being, including lower levels of positive mood and elevated rates of depression (Dennerstein et al., 2008), lower sexual satisfaction (Rosen et al., 2009; Stephenson & Meston, 2010a), sexual function (Azimi Nekoo et al., 2014; Stephenson & Meston, 2010b; Ter Kuile et al. 2006), and relationship satisfaction and quality (Rosen et al., 2009; Stephenson & Meston, 2010a). On the other hand, individuals with sexual distress tend to present higher motivation to seek professional help to discuss and treat sexual problems (Evangelia et al., 2010). Thus, sexual distress is a fundamental determinant of sexual health and a component of sexual dysfunction, since it exerts a major influence on the sexual and global well-being of individuals (Dennerstein et al., 2008).

Assessment of Sexual Distress

According to the ICD-11 (World Health Organization, 2020) and to the DSM-5-TR (American Psychiatric Association, 2022) diagnostic manuals, the experience of sexual distress is a necessary criterion for the diagnosis of sexual dysfunctions. However, the assessment of sexual dysfunctions has been extensively based merely on the assessment of sexual function. For example, widely used psychometric scales such as the Female Sexual Function Index (FSFI; Rosen et al., 2000) and the International Index of Erectile Function (IIEF; Rosen et al., 1997) do not assess for sexual distress. Therefore, it is crucial that validated and reliable psychometric scales for the assessment of sexual distress are at the service of both clinical practice and scientific research.

The embodiment of the assessment of sexual distress in the assessment of sexual dysfunctions has numerous advantages. The prevalence of sexual problems varies greatly according to the criteria used to assess them – when sexual distress is assessed, rates of sexual dysfunction decrease (Hayes et al., 2008). Therefore, the assessment of sexual distress is essential to avoid an overestimation of these rates, as it allows for a more accurate assessment of the prevalence of sexual problems in the population. Furthermore, disturbances in sexual function, *per se*, do not indicate how individuals feel about them, since not all these disturbances are associated with sexual distress (Stephenson & Meston, 2010b; Stephenson et al., 2018; Walker & Santos-Iglesias, 2020). Hence, an appropriate assessment of sexual dysfunction should include, in addition to an assessment of clinically significant disturbances in sexual function, an assessment of the sexual distress associated with these difficulties. It should also be noted that sexual distress can be experienced in the absence of impairments in sexual function, such that individuals may feel distressed by other aspects of their sexual lives, such as relationship problems or anticipation of negative consequences of sexual intercourse (Santos-Iglesias et al., 2018b; Stephenson et al., 2018). With that being said, the existence of a psychometric scale that allows for the assessment of sexual distress as a construct distinct from sexual function is crucial.

Currently, there are various measures of sexual distress available (Santos-Iglesias et al., 2018a), with the Female Sexual Distress Scale (FSDS; Derogatis et al., 2008) and its revised version, the Female Sexual Distress Scale–Revised (FSDS-R; Derogatis et al., 2011), being the most used instruments to assess this construct. Originally, the FSDS was developed as a 12-item unifactorial scale to assess global sexual distress. Subsequently, because of a revision to the scale, an item to assess sexual distress related to low sexual desire specifically was added (“Are you bothered by low sexual desire?”). According to consistent evidence on the validity of the scales, the authors demonstrated that the FSDS and the FSDS-R both allow for the assessment of sexual distress and the discrimination between females with and without sexual dysfunction (Derogatis et al., 2011). Regarding the internal consistency and test-retest reliability of these scales, the results were found to be excellent (Derogatis et al., 2008, 2011).

The FSDS and the FSDS-R offer important advantages compared to other measures of sexual distress (Tavares et al., 2022). Firstly, the FSDS and the FSDS-R allow for the assessment of sexual distress independently of the specific domain of sexual function, given that the items assess the frequency of the experience of sexual distress regardless of sexual functioning, which increases these scales’ sensitivity to other potential sources of sexual distress (e.g., sexual relationship problems). Secondly, the FSDS and the FSDS-R items are sex

and/or gender neutral since they do not refer to any specific sex and/or gender aspects. In this sense, Santos-Iglesias and colleagues (2018b) demonstrated that the FSDS and the FSDS-R are also representative of the experiences of sexual distress in male samples, renaming the instruments as Sexual Distress Scale (SDS) and Sexual Distress Scale–Revised (SDS-R), respectively. Finally, the SDS and the SDS-R not only make it possible to assess sexual distress in males but also allow for the discrimination between males with and without sexual distressing problems, as well as the comparison between females and males. Regarding the internal consistency and test-retest reliability of these scales, the results were once again robust (Santos-Iglesias et al., 2018b).

The FSDS/FSDS-R and the SDS/SDS-R have been validated for various populations and cultures, and translated to several languages, such as: Arabic, Brazilian Portuguese, Dutch, Iranian, Italian, Korean, Polish, Spanish and Turkish (Atia, 2023; Aydin et al., 2016; Azimi Nekoo et al., 2014; Bae et al., 2006; Galizia et al., 2023; Gómez-Lugo et al., 2024; Nowosielski et al., 2013; Pereira et al., 2022; Ter Kuile et al. 2006). In these validation studies, the scales revealed solid psychometric properties. The studies have shown that scores on both scales reveal moderate to strong positive associations with psychological distress indices (Azimi Nekoo et al., 2014; Derogatis et al., 2002; Galizia et al., 2023; Santos-Iglesias & Walker, 2018; Santos-Iglesias et al., 2018b; Tavares et al., 2022); weak to strong negative associations with sexual function (Atia, 2023; Aydin et al., 2016; Azimi Nekoo et al., 2014; Galizia et al., 2023; Gómez-Lugo et al., 2024; Pereira et al., 2022; Santos-Iglesias & Walker, 2018; Santos-Iglesias et al., 2018b; Tavares et al., 2022; Ter Kuile et al. 2006); moderate to strong negative associations with sexual satisfaction (Santos-Iglesias & Walker, 2018; Santos-Iglesias et al., 2020; Tavares et al., 2022); and weak to moderate negative associations with relationship adjustment and quality (Santos-Iglesias et al., 2020; Tavares et al., 2022).

In Portugal, Tavares and colleagues (2022) translated and validated the SDS and the SDS-R using female and male samples. The results of this study indicated that the Portuguese version of the SDS and the SDS-R allows for the assessment of the frequency of sexual distress and for the comparison of females and males. However, the study's results indicated that comparisons between individuals with and without sexual distressing problems are to be made with caution, since several items were biased against those with sexual distressing problems. In other words, after matching on their scores of sexual distress, individuals with sexual distressing problems scored higher on these items. Regarding the validity and reliability of the Portuguese version of the scales, the results showed strong psychometric properties.

Short Forms of Psychometric Scales

The need for short scales is currently developing at a rapid pace, and this may be related to the demands of psychological research in general (Ziegler et al., 2014). Usually, short scales are constructed to study correlational patterns within large and representative population samples (Ziegler et al., 2014). However, in Psychology, most measures should validate group statistics but also make individual statistics valid, since it is mostly clinical practice that presents a great demand for short scales (Ziegler et al., 2014).

The short forms of psychometric scales have numerous advantages that justify the need and usefulness of their availability for both clinical practice and scientific research (Rammstedt & Beierlein, 2014; Ziegler et al., 2014). The time used for an assessment, especially in large-scale investigations, is limited, so to increase response rates shorter measures are critically needed (Rammstedt & Beierlein, 2014). The length of a questionnaire is negatively correlated with response rates (Edwards et al., 2004), such that the longer the questionnaire, the less likely it is to be fully answered. Many items can negatively impact respondents' responses to a questionnaire (Tourangeau et al., 2000), causing them boredom and fatigue (Burisch, 1984; Robins et al., 2001). To minimize their efforts, respondents may meet only the basic requirements for the participation in a survey, rather than providing an accurate answer. In questionnaire research, this phenomenon is less likely on short scales, given that they increase the probability of obtaining optimal answers from the respondent (Burisch, 1984; Krosnick, 1999). At last, the use of short scales also has advantages in terms of validity (Rammstedt & Beierlein, 2014; Ziegler et al., 2014). The brevity of a scale increases its facial validity (Wanous et al., 1997), since a short scale is composed of a small number of items that best represent the construct assessed.

To help answer these concerns, a brief version of the SDS/SDS-R has been developed. Unlike the SDS and the SDS-R (i.e., which are, respectively, 12-item and 13-item unifactorial scales), the Sexual Distress Scale–Short Form (SDS-SF) comprises only five items. This abbreviated version of the scale was validated for Italy and preliminarily validated for Canada (Galizia et al., 2023; Santos-Iglesias et al., 2020). In these studies, the scales revealed good psychometric properties. Nevertheless, Lin and colleagues (2024) validated an ultra-short version of the SDS/SDS-R consisting of only three items, the Sexual Distress Scale–3 (SDS-3), which reveals several methodological limitations, from sample and data collection to the psychometric tests performed for its validation. Hence, the SDS-SF, when compared to the SDS-3, shows more robust and strong psychometric properties.

Sexual Health and Well-Being of the LGBT Population

The validation and translation studies of the SDS/SDS-R/SDS-SF have focused exclusively on trying to assess whether, in addition to the assessment of sexual distress, these instruments allow for the comparison between females and males, as well as between individuals with and without sexual distressing problems. However, until now, it has not yet been understood whether these scales also allow for the comparison of the experience of sexual distress between cisheterosexual and LGBT individuals. The National Institute on Minority Health and Health Disparities (2016) formally recognized LGBT groups as a population with health disparities for research purposes. For instance, they experience a higher risk of psychological distress compared to the cisheterosexual population (Dilley et al., 2010; Fredriksen-Goldsen et al., 2013; King et al., 2008).

The minority stress model has been influential in guiding research on the health and well-being of sexual and/or gender minorities in Psychology (National Academies of Sciences, Engineering, and Medicine, 2020). Originally, when Meyer (2003) developed this model, the author only described the stressors of sexual minorities – lesbian, gay and bisexual population (LGB). More recently, Testa and colleagues (2015) adapted the minority stress model to gender minorities – transgender and gender diverse population (T) – considering their specific stressors. These models assert that disparities in the health and well-being of LGBT individuals result from their chronic exposure to stress stemming from the stigmatized social status they occupy, which is a minority relatively to the cisheterosexual population (Meyer, 2003; Testa et al., 2015). Hence, minority stress is distinguished by its origin in sexual stigma and prejudice, which refer to negative beliefs and attitudes towards sexual and/or gender minorities (Frost & Meyer, 2023; Herek, 2009). According to Herek (2009), stigmatized individuals tend to internalize sexual prejudice which can lead to negative beliefs about their own sexual orientation and/or gender identity.

Regarding the sexual well-being of the cisgender LGB population when compared to their cisheterosexual counterparts, the prevalence of sexual dysfunction and the sexual response ability tend to be similar (Obedin-Maliver et al., 2019; Stark et al., 2021). However, according to Stark and colleagues (2021), clinical practice and scientific research on the sexual well-being of cisgender LGB people lack validated scales that address their specificities, to reach more accurate conclusions. Thus, the authors suggest that new scales should be developed and/or existing scales should be validated to quantify relevant domains of sexual health in this population (Stark et al., 2021).

As for the sexual well-being of transgender people, a systematic review including 44 studies concluded that sexual dysfunction is also common in this population, with some particularities to be noted (Mattawanon et al., 2021). Gender-affirming hormone therapy and gender-affirming surgery affect sexual function, such that transgender people may have different goals and expectations than cisgender people regarding their sexual exploration. In addition, since specific guidelines for assessing or diagnosing sexual dysfunction in transgender people are not yet available, the criteria established for cisgender people are applied instead. Thus, according to Mattawanon and colleagues (2021), standardized and widely validated instruments are needed to assess sexual health in the transgender and gender-diverse population.

Considering the points above, it is important to demonstrate whether the SDS-SF is also suitable for use in the LGBT population, as performed by Lin and colleagues (2024) in the validation of the SDS-3. It is also important to examine if the SDS-SF allows for the adequate assessment of the frequency of sexual distress of this population compared to cisheterosexual individuals, as already demonstrated between females and males or individuals with and without sexual distressing problems.

Psychometric Validation of the SDS-SF in Portugal

Considering the need and usefulness of a short scale to assess sexual distress and given that, to date, no Portuguese version of the SDS-SF is available, the purpose of the present study was to examine the SDS-SF in Portuguese samples. Specifically, we aimed to evaluate whether the SDS-SF can be used to (1) assess sexual distress in Portuguese samples, and (2) compare levels of sexual distress between females and males, individuals with and without sexual distressing problems, and cisheterosexual and LGBT individuals. Drawing on the argument-based approach to validation (Kane, 1992, 2013), we propose that SDS-SF scores reflect the frequency of distressing feelings related to one's sexual life and, therefore, they can be interpreted as indicators of the frequency of sexual distress in the population. More specifically, we proposed the following intended uses of the SDS-SF: a) to assess the frequency of sexual distress in Portuguese samples; b) to compare sexual distress between females and males; c) to compare sexual distress between individuals with and without sexual distressing problems; and d) to compare sexual distress between cisheterosexual and LGBT individuals. To support these uses and interpretations, the following assumptions were examined:

1. The items of the Portuguese SDS-SF are relevant and representative of sexual distress for cisheterosexual and LGBT individuals. The items are clear and easy to understand for these participants who respond to the SDS-SF.

2. Consistent with the original version of the SDS-SF, items are clustered into a single sexual distress factor with high internal consistency reliability.
3. Item parameters follow the functional form of a graded response model, in that higher levels of sexual distress will be associated with higher response options (i.e., thresholds are increasingly ordered).
4. The SDS-SF scores are moderately positively correlated with psychological distress; moderately negatively correlated with sexual function; strongly negatively correlated with sexual satisfaction; and moderately negatively correlated with relationship satisfaction.
5. The SDS-SF items and scores do not show differential item or test functioning between females and males, individuals with and without sexual distressing problems, and cisheterosexual and LGBT individuals.
6. The SDS-SF scores discriminate between individuals with and without sexual distressing problems.

Methods

Participants

For this study, the goal was to recruit a sample of the general Portuguese population. Inclusion criteria for study participants were being Portuguese, at least 18 years old, and being able to read Portuguese proficiently. Participants were classified as having sexual distressing problems if: (i) they reported sexual difficulties and concomitant sexual distress in the past 6 months; or (ii) were currently receiving and/or seeking treatment for their sexual difficulties. Seeking help and/or treatment for sexual difficulties was used as an indicator of sexual distress, as previous research indicates that seeking help and/or treatment is a significant marker of higher scores of sexual distress (Brotto & Basson, 2014; Evangelia et al., 2010).

The final sample consisted of a total of 782 participants with ages ranging from 18 to 78 years old ($M = 30.86$, $SD = 12.53$). Most of the participants reported female biological sex ($n = 589$, 75.3%), identified as women ($n = 557$, 71.2%), heterosexual ($n = 561$, 71.7%), and cisgender ($n = 737$, 94.2%). Around two thirds of the sample were in a romantic and/or sexual relationship at the time of the study ($n = 517$, 66.1%), most of them with one partner only ($n = 503$, 97.3%). The sample was mainly composed of students ($n = 369$, 47.2%) and employed

individuals ($n = 331$, 42.3%). More details and other demographic characteristics are presented in Table 1.

Table 1

Sociodemographic and Background Characteristics of the Survey Sample ($N = 782$)

Variables	n (%)
Biological sex	
Female	589 (75.3)
Male	193 (24.7)
Gender identity	
Men	188 (24.0)
Women	557 (71.2)
Non-binary	34 (4.3)
Agender	1 (0.1)
Gender-fluid	2 (0.2)
Sexual orientation	
Heterosexual	561 (71.7)
Homosexual	58 (7.4)
Bisexual	142 (18.2)
Asexual	3 (0.3)
Demisexual	1 (0.1)
Pansexual	11 (1.5)
Queer	1 (0.1)
No label	1 (0.1)
Uranic	1 (0.1)
Questioning	1 (0.1)
Don't know	2 (0.3)
In a relationship	
Yes	517 (66.1)
Relationship type (romantic and/or sexual)	
With one partner	503 (97.3)
With multiple partners	11 (2.1)
Romantic with one and sexual with multiple partners	2 (0.3)

Variables	n (%)
Occasional sex with one partner	1 (0.1)
Relationship duration	
<1 year	77 (14.9)
1–3 years	149 (28.8)
3–5 years	64 (12.4)
5–10 years	74 (14.3)
10–20 years	68 (13.2)
More than 20 years	85 (16.4)
Children	
Yes	194 (24.8)
Number of children	
1	91 (46.9)
2	86 (55.3)
3	13 (6.7)
4	3 (1.5)
5	1 (0.5)
Educational level	
Lower Primary Education (grades 1–4)	2 (0.3)
Upper Primary Education (grades 5–6)	4 (0.5)
Lower Secondary Education (grades 7–9)	23 (2.9)
Upper Secondary Education (grades 10–12)	238 (30.4)
Short-Cycle Tertiary Education	29 (3.7)
Bachelor's Degree	314 (40.2)
Master's Degree	157 (20.1)
Doctorate (PhD)	15 (1.9)
Employment status	
Employed	331 (42.3)
Unemployed	24 (3.1)
Retired	19 (2.4)
Student	369 (47.2)
Other	39 (5.0)

The average health rating for the entire sample was 77.22 ($SD = 15.48$, range = 0–100). Among males, the most common sexual difficulties were erectile problems and premature ejaculation, with sexual distress being most often reported on over half of those affected with erectile problems (56.9%; see Table 2). Among females, difficulty reaching orgasm and reduced interest/arousal/pleasure were most frequent. Despite being the least common sexual difficulty, sexual distress was most often reported for vulvovaginal or pelvic pain (65.2%; see Table 2).

Table 2

Frequency and Percentage of Sexual Difficulties With and Without Distress

	n (%)	
	Difficulty without distress	Difficulty with distress
Male		
Difficulty achieving or maintaining erection	51 (26.8)	29 (56.9)
Lack of or reduced sexual interest	42 (22.1)	18 (42.9)
Premature ejaculation	51 (26.8)	24 (47.1)
Difficulty achieving orgasm/ejaculation	38 (20.0)	22 (57.9)
Female		
Difficulty reaching orgasm	260 (43.9)	106 (40.8)
Lack of or reduced sexual interest, arousal, or pleasure	251 (42.4)	149 (59.4)
Vulvovaginal or pelvic pain	158 (26.7)	103 (65.2)

Procedures

Ethical approval of the study was obtained by the Ethics Board of the Faculty of Psychology and Educational Sciences of the University of Porto (reference 2024-10-13b). No monetary compensation was granted to participants. Different procedures were used to publicize the study and recruit participants, including: (i) advertisements of the study publicized on digital social media (e.g., Facebook, Instagram, X, LinkedIn, official academic social media pages, online newsletters of sexual and LGBT+ community health organizations); (ii) brochures published on different community sites and/or related to sexual health and sexuality (e.g., University, sexual health and sexuality clinics); (iii) referral of participants with sexual difficulties by sexual health and sexuality professionals working in clinical and health settings.

As a first step, we started by verifying the comprehension, intelligibility and adequacy of the SDS-SF items to the population that would compose the sample. This was already conducted by Tavares and colleagues (2022) in relation to female and male individuals with and without sexual distressing problems. Therefore, in the current study, we only tested this in relation to cisheterosexual and LGBT individuals. To examine whether the SDS-SF items were clear and representative of the frequency of sexual distress of cisheterosexual and LGBT individuals (assumption 1), we conducted a cognitive interview for content validation of the SDS-SF items from the perspective of these respondents.

We recruited by convenience a sample of 20 participants (10 cisheterosexual and 10 LGBT individuals) with ages ranging from 18 to 68 years old ($M = 34.25$, $SD = 15.77$) and with similar characteristics to the study sample (see Table 3). These participants 1) provided free and informed consent, 2) answered the sociodemographic and health questionnaire, 3) were given a definition of sexual distress (i.e., “the experience of negative feelings toward one’s sexual life”), and 4) were asked to indicate: (i) whether the SDS-SF items were clear and easy to understand (if not, they were asked to provide alternative suggestions to improve the clarity and understanding of the items); (ii) whether the items were sufficient to assess sexual distress (if not, they were asked to provide additional items); and (iii) whether any item was not necessary to assess sexual distress and could be excluded (if so, they were asked to indicate which ones). These participants were also asked to indicate: (iv) how they felt about the inclusive language of the scale items (“a/o/e”), given that, although in English the items are sex and/or gender neutral, in Portuguese the items are binary (“a/o”) in these aspects. The cognitive interviews were conducted either in person or online with each participant. During each interview, one researcher conducted the interview, and the other registered the responses, given that these were not recorded.

Table 3

Sociodemographic and Background Characteristics of the Pre-Survey Sample (N = 20)

Variables	n (%)
Biological sex	
Female	9 (45.0)
Male	11 (55.0)
Gender identity	
Men	10 (50.0)

Variables	n (%)
Women	9 (45.0)
Non-binary	1 (5.0)
Sexual orientation	
Heterosexual	12 (60.0)
Homosexual	3 (15.0)
Bisexual	2 (10.0)
Pansexual	3 (15.0)
In a relationship	
Yes	13 (65.0)
Relationship type (romantic and/or sexual)	
With one partner	13 (100.0)
Relationship duration	
<1 year	4 (30.8)
1–3 years	4 (30.8)
3–5 years	1 (7.7)
5–10 years	1 (7.7)
More than 20 years	3 (23.1)
Children	
Yes	5 (25.0)
Number of children	
1	2 (40.0)
2	1 (20.0)
5	2 (40.0)
Educational level	
Lower Secondary Education (grades 7–9)	1 (5.0)
Upper Secondary Education (grades 10–12)	10 (50.0)
Short-Cycle Tertiary Education	1 (5.0)
Bachelor's Degree	4 (20.0)
Master's Degree	2 (10.0)
Doctorate (PhD)	2 (10.0)
Employment status	
Employed	13 (65.0)

Variables	n (%)
Retired	1 (5.0)
Student	4 (20.0)
Other	2 (10.0)

Subsequently, for the psychometric test of the SDS-SF, participants provided free and informed consent online by following the survey URL link. Data collection was conducted through an online inquiry platform (Qualtrics, 2025), in which all participants were invited to respond to a confidential and anonymous survey that assessed sociodemographic data, physical and sexual health, sexual distress, sexual function, sexual satisfaction, relationship satisfaction, and psychological distress. The entire dataset was downloaded and stored on an external hard drive protected by password to which only the research team had access.

Instruments

Sociodemographic and Health Questionnaire

A sociodemographic questionnaire was used to obtain information on age, biological sex, gender identity, sexual orientation, relationship status, type and duration of relationship, parental status, and number of children. Participants also reported on their educational level and employment status. Regarding health, participants rated their overall health on a scale ranging from 0 (worst health imaginable) to 100 (best health imaginable). They were also asked whether they had experienced sexual difficulties in the past 6 months. Those who responded affirmatively were asked whether these difficulties caused them significant distress. Participants who answered “yes” to both questions were classified as having sexual distressing problems.

Sexual Distress Scale–Short Form (SDS-SF; Santos-Iglesias et al., 2020)

Participants completed the five items of the Portuguese version of the SDS/SDS-R (Tavares et al., 2022) that correspond to its short form (1 – “Distressed about your sex life”; 2 – “Frustrated by your sexual problems”; 3 – “Stressed about sex”; 4 – “Worried about sex”; and 5 – “Sexually inadequate”), as shown in Table A1 (Appendix A). The SDS-SF is a 5-item measure assessing the frequency of overall distress related to one’s sexual life. Items are rated on a 5-point scale ranging from 0 (never) to 4 (always). The score ranges from 0 to 20, with higher scores indicating greater sexual distress. The Portuguese adaptation of the SDS/SDS-R demonstrated validity evidence based on content, internal structure, and relations with other variables, and the scores showed measurement invariance between women and men (Tavares et al., 2022). The reliability of the SDS/SDS-R in Portuguese samples was excellent ($\omega > .92$;

Tavares et al., 2022). In this study's sample, the internal consistency of the SDS-SF was also good ($\omega = .89$).

Arizona Sexual Experiences Scale (ASEX; McGahuey et al., 2000)

The ASEX is a 5-item measure designed to assess five domains of sexual functioning: sex drive, arousal, vaginal lubrication/penile erection, ability to reach orgasm, and satisfaction from orgasm. Each item is rated on a 6-point scale from 1 (hyperfunction) to 6 (hypofunction), with higher scores indicating poorer sexual function. In Portuguese samples, the ASEX showed validity based on internal structure and relations with other variables, as well as ability to discriminate respondents with and without self-reported sexual difficulties (Santos-Iglesias et al., 2017). The internal consistency reliability was acceptable both for women ($\alpha = .75$) and men ($\alpha = .71$; Santos-Iglesias et al., 2017). In our sample, the ASEX has demonstrated good internal consistency ($\alpha = .81$).

Global Measure of Sexual Satisfaction (GMSEX; Lawrance et al., 1995)

The GMSEX is a 5-item scale that assesses one's satisfaction with the sexual relationship with a partner. Participants rate their overall satisfaction with their sexual relationship on five 7-point semantic differential scales: good–bad, pleasant–unpleasant, positive–negative, satisfying–unsatisfying, valuable–worthless. The total score ranges from 5 to 35, with higher scores indicating greater sexual satisfaction. Regarding the Portuguese version, Pascoal and colleagues (2013) found validity evidence based on internal structure and relations with other variables, and the scores showed good to excellent reliability values ($\alpha = .83-.94$). In the present study sample, the internal consistency of the GMSEX was also found to be excellent ($\alpha = .93$).

Couples Satisfaction Index–4 (CSI-4; Funk & Rogge, 2007)

The CSI-4 is a brief self-report measure designed to assess relationship satisfaction. It consists of four items that are rated using 6- or 7-point ordinal scales, depending on the item. The items are summed up to obtain a total score that ranges from 0 to 21, with higher scores indicating greater relationship satisfaction. The Portuguese version of the CSI-4 demonstrated evidence of validity based on internal structure, convergent and discriminant validity and excellent internal consistency reliability ($\alpha = .91$; Lamela & Morais, 2017). In our study's sample, the CSI-4 has demonstrated acceptable internal consistency ($\alpha = .77$).

Brief Symptom Inventory–18 (BSI-18; Derogatis, 2001)

Psychological distress was assessed using the BSI-18 consisting of 18 items. Using a 5-point scale, participants report on the intensity of psychopathological symptoms experienced in the past 7 days. The instrument includes 3 subscales: anxiety, depression, and somatization.

Total scores range from 0 to 72 (0–24 for each subscale), with higher scores indicating greater psychological distress. The Portuguese version of the BSI-18 showed evidence of validity based on internal structure, convergent, discriminant, and criterion validity, temporal stability and demonstrated good to excellent internal consistency ($\alpha = .80-.93$; Nazaré et al., 2017). In our sample, the BSI-18 revealed excellent internal consistency ($\alpha = .92$).

Data Analysis

Assumption 1 was tested using a combination of descriptive frequency analysis and qualitative content analysis. The responses to the first, second, and third questions, structured as closed-ended items (“yes” or “no”) were analyzed through descriptive frequency analysis, with absolute and relative frequencies calculated to summarize participants’ perceptions regarding the clarity, sufficiency, and necessity of the SDS-SF items. Subsequently, the open-ended responses were examined through thematic content analysis, following the methodological principles outlined by Bardin (2011), with the identification of recurring ideas and their grouping into meaningful categories based on semantic similarity (Hayes, 1997). This dual approach enabled both a quantitative summary of participant agreement and a qualitative interpretation of their insights, thereby enhancing the rigor of the analysis processes.

Assumption 2 was tested using factor analysis. A unidimensional confirmatory factor analysis (CFA) was fitted to the data using full maximum likelihood to handle missing data (Enders, 2010). Model adequacy was evaluated using fit indices, factor loadings, and standardized residuals. Values $\geq .95$ for CFI and TLI and $\leq .08$ for SRMR indicated good fit (Hu & Bentler, 1999). Internal consistency (assumption 7) was examined using McDonald’s omega (McDonald, 1999). The analyses were conducted using the *lavaan* (Rosseel, 2012) and *semTools* (Jorgensen et al., 2025) packages in RStudio.

Assumption 3 was evaluated using item response theory (IRT) analysis. Items were calibrated with a graded response model (GRM; Samejima, 2016). Global model fit was assessed using the C2 statistic, along with the SRMR, TLI, and CFI indices (Toland, 2014). The C2 statistic is appropriate for polytomous items (Cai & Monroe, 2014) and significant C2 values indicate poor model fit. SRMR, TLI, and CFI can be interpreted as the same benchmarks applied in confirmatory factor analysis. Item-level fit was examined using the polytomous extension of the $S-\chi^2$ statistic (Orlando & Thissen, 2000), where statistically significant values suggest inadequate item fit. Both global and item-level fit indices were used to evaluate whether item responses followed a monotonic pattern. Furthermore, item discrimination and difficulty parameters, along with their associated item characteristic curves (ICCs), were used to determine whether items effectively differentiate respondents across varying levels of sexual

distress. To support assumption 3, difficulty parameters were expected to be distributed across the latent continuum, and ICCs were expected to show minimal overlap between response categories. Finally, item information curves (IICs) and the test information and characteristic curves (TIC and TCC, respectively) were examined to evaluate the range and precision of information provided by the SDS-SF score. All the analyses were conducted using the *mirt* package (Chalmers, 2012) in RStudio.

Assumption 4 was examined using Pearson correlations. More specifically, we hypothesized that the SDS-SF items and score would show a) strong negative correlations with sexual satisfaction scores; b) moderate positive correlations with sexual function and psychological distress; and c) moderate negative correlations with relationship satisfaction. Analyses were conducted using the package *corrtable* (van der Laken & Lambert, 2023) in RStudio.

Assumption 5 was evaluated by examining both differential item functioning (DIF) and differential test functioning (DTF) in the context of item response theory. DIF occurs when items measure the construct differently across groups, whereas DTF arises when these differences are found at the test score level (Chalmers et al., 2016). Because between-group comparisons are typically conducted at the test score level, DTF is therefore considered more meaningful than tests of DIF (Halamová et al., 2019; Meade, 2010). DIF was evaluated following the two-stage procedure described by Meade & Wright (2012) using likelihood ratio tests (LRT) within the graded response model (Samejima, 2016) for polytomous items. In Stage 1, all items were screened for DIF using the *all others as anchors* approach. In Stage 2, the items that showed no evidence of DIF and had the largest discrimination parameters in Stage 1 were retained as anchor items. These anchors were then used in the final round of LRT analyses to test the remaining items for DIF. At the test level, DTF was further assessed using the signed and unsigned DTF statistics (Chalmers et al., 2016). The signed differential test functioning (sDTF) statistic reflects the direction and magnitude of bias in total raw scores between groups, with possible values ranging from -TS to TS (where TS is the highest attainable test score). Positive values indicate that the reference group (i.e., males, cisheterosexual participants, and individuals without sexual distressing problems) scored higher than the focal group (i.e., females, LGBT participants, and individuals with sexual distressing problems), whereas negative values indicate the opposite pattern. The unsigned differential test functioning (uDTF) statistic quantifies the average absolute difference between the expected test scores of each group across the latent trait continuum, with values ranging from 0 to TS. Smaller values

indicate minimal difference between the test response functions of the groups. All the analyses were conducted using the *mirt* package (Chalmers, 2012) in RStudio.

Assumption 6 was evaluated using receiver operating characteristic (ROC) curves to examine the ability of SDS-SF scores to discriminate between respondents with and without sexual distressing problems. To ensure that the SDS-SF specifically captures sexual distress, its discriminative performance was compared against its ability to distinguish participants who reported sexual difficulties without distress and those who were in a relationship versus not. It was expected that the SDS-SF score would not only discriminate participants with and without sexual distressing problems but also do so more effectively (reflected by significantly higher AUCs) than its discrimination of participants with and without sexual difficulties or those in versus not in a relationship. The analyses were conducted with the *pROC* package (Robin et al., 2011) in RStudio.

Results

Assumption 1

All 20 participants (100%) reported that the five items of the SDS-SF were clear and easy to understand. Although item 5 (“Sexually inadequate”) was perceived as confusing by two participants, this difficulty was attributed to a lack of personal experience with the emotional content rather than a lack of clarity. Additionally, item 5 was noted to elicit discomfort in some participants, which aligns with findings from the original preliminary validation study of the SDS-SF (Santos-Iglesias et al., 2020). Regarding the sufficiency of the items, all participants (100%) agreed that the five items adequately assess sexual distress. However, seven participants suggested additional emotional states to add to the SDS-SF (e.g., insecurity, anxiety, disinterest, shame) which they considered covered by existing items. In terms of item necessity, 90% of participants affirmed that all five items were essential, while two participants questioned item 5 due to personal difficulty in identifying with the emotional state described. Finally, the responses to the question about inclusive language revealed three categories: neutral/indifferent reactions (50%), lack of awareness (20%), and positive reception of inclusion (30%), indicating general acceptability of the “a/o/e” format in Portuguese. Based on these results, no modifications to the SDS-SF were deemed necessary.

Assumption 2

The unidimensional CFA model demonstrated good fit to the data, $\chi^2(5) = 46.41$, $p < .001$, CFI = .971, TLI = .943, SRMR = .025. All factor loadings were substantial ($\lambda > .67$), with item 5 (“Sexually inadequate”) showing the lowest loading and the highest standardized residual variance (see Table 4). Inspection of the residual correlation matrix showed only negligible values, indicating that once the common factor was accounted for, the items did not exhibit additional shared covariance. Reliability was high, as indicated by McDonald’s $\omega = .89$.

Table 4

Factor Loadings (λ), Uniqueness (δ), and Residual Correlations

Items	λ	δ	Residual correlations				
			Item 1	Item 2	Item 3	Item 4	Item 5
1	.75	.43	.00				
2	.77	.40	.06	.00			
3	.84	.29	-.03	-.01	.00		
4	.86	.27	-.01	-.05	.04	.00	
5	.67	.55	.00	.06	-.04	.00	.00

Assumption 3

Item response theory (IRT) analyses were conducted using the graded response model (see Table 5). The discrimination parameters (a) indicated that all items showed moderate to very high ability to differentiate between individuals with different levels of the latent trait (i.e., sexual distress). Items 3 ($a = 3.76$) and 4 ($a = 3.64$) demonstrated the highest discrimination, followed by items 2 ($a = 2.66$) and 1 ($a = 2.45$), while item 5 showed comparatively lower, though still adequate, discrimination ($a = 1.88$). The threshold parameters (b_1 – b_4), ranging from -1.01 to 2.87, were ordered as expected, with values increasing monotonically across response categories. This indicates that higher levels of the latent trait were required to endorse higher response options (for item characteristic curves, see Figure 1). Item location parameters (LI) ranged from 0.75 (item 1) to 1.02 (item 5), suggesting that, on average, the items targeted slightly above – average levels of the latent trait (i.e., sexual distress).

Model-data fit was good, $C2 = 64.81$, $p < .001$, SRMR = .038, TLI = .959, CFI = .979, suggesting that the model reproduced well the observed item response patterns across the range of the latent trait. However, three items (1, 2, and 5) showed significant S- χ^2 statistics (see Table 5), suggesting some discrepancy between the observed responses and the responses expected

by the model. Figure 2 shows the observed versus expected response curves for items 4 (“Worried about sex”) and 5 (“Sexually inadequate”). Item 4 showed good correspondence between observed and expected category response curves, with only minor fluctuations and no evidence of misfit across the five response options. In contrast, item 5 demonstrated noticeable deviations, particularly for the intermediate categories.

Table 5

IRT Discrimination (a) and Difficulty Parameters (b₁–b₄), Item Location Parameter (LI), and Item Fit (S- χ^2)

Items	a	b ₁	b ₂	b ₃	b ₄	LI	S- χ^2
1	2.45	-1.01	0.10	1.39	2.69	0.75	36.87*
2	2.66	-0.55	0.44	1.46	2.87	0.97	44.43**
3	3.76	-0.40	0.41	1.31	2.76	0.87	24.86
4	3.64	-0.60	0.25	1.25	2.53	0.76	18.12
5	1.88	-0.41	0.54	1.42	2.86	1.02	61.41**

* $p < .05$. ** $p < .01$.

Figure 1

Item Characteristic Curves of the SDS-SF Items

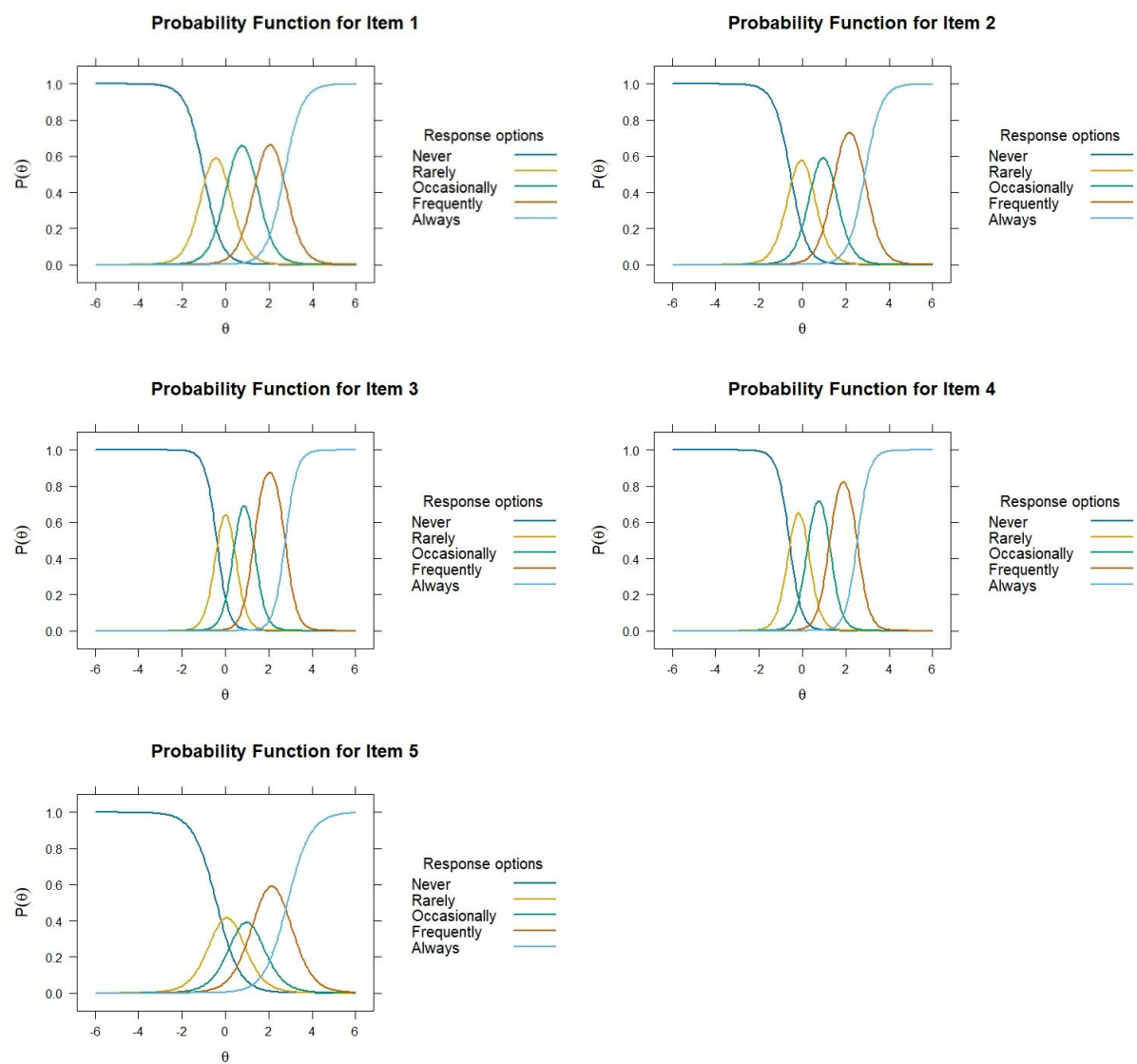
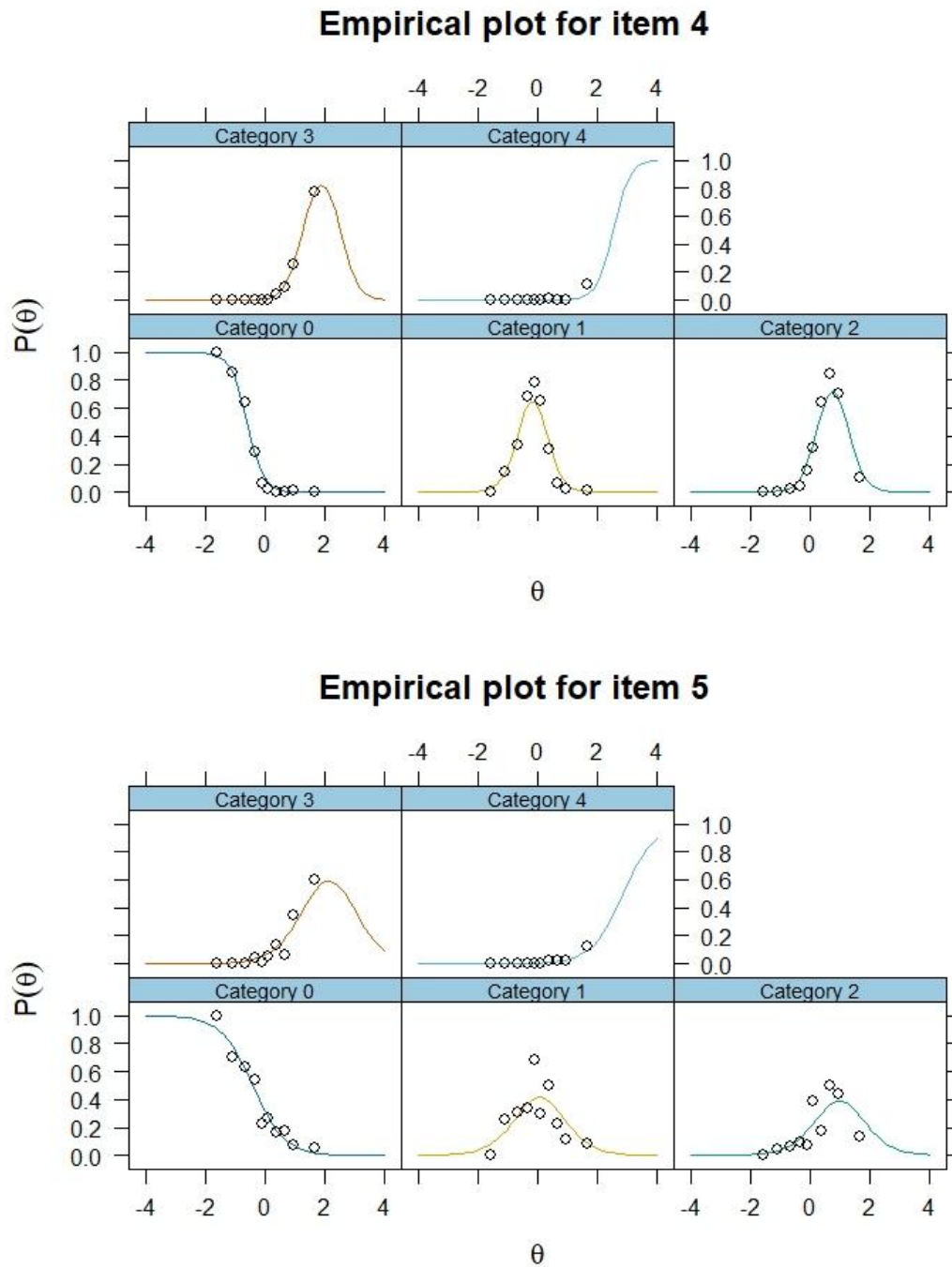


Figure 2

Discrepancy Between the Observed and the Expected Responses for Items 4 and 5



Note. Each panel represents one of the five response categories (0–4), with the horizontal axis showing the latent trait (θ ; sexual distress) and the vertical axis showing the probability of endorsing that category. The smooth colored lines represent the model-predicted response probabilities, while the circles represent the empirically observed probabilities obtained from the data. A close correspondence between observed points and predicted curves indicates good fit of the item to the GRM, whereas systematic deviations signal potential item misfit.

An examination of the item information curves (see Figure 3), and test information curve and test characteristic curve (see Figure 4) shows that the items 3 and 4 were the most informative, whereas item 5 was the least informative. The items tend to cover the range of sexual distress very well, although there is some redundancy on the average (0) to high (+2) levels of sexual distress. Overall, the SDS-SF items and total score provide more information and discriminate best at higher levels of sexual distress.

Figure 3

Item Information Curves of the SDS-SF Items

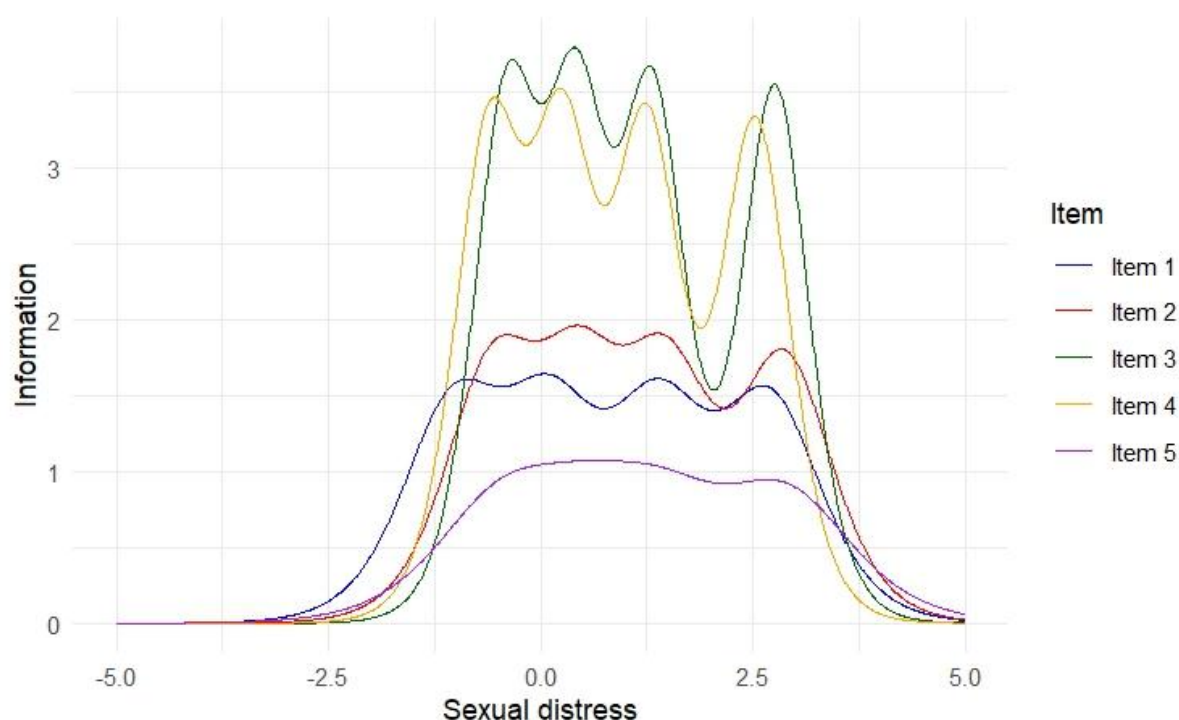
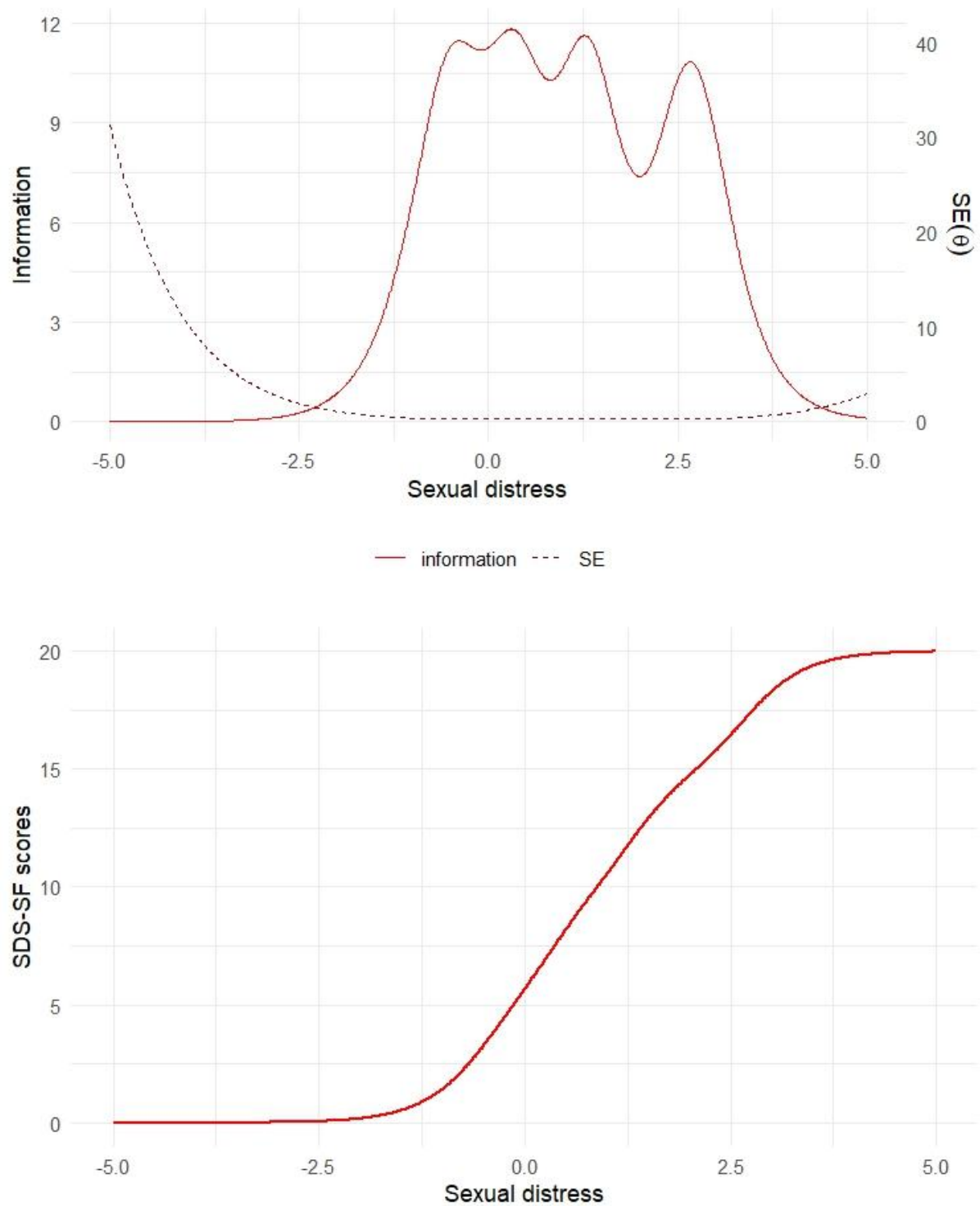


Figure 4

Test Information Curve (Above) and Test Characteristic Curve (Below)



Assumption 4

The correlations between the SDS-SF items and score and other related and unrelated constructs can be seen in Table 6. All the correlations were consistent with our expectations. The SDS-SF items and score correlated strongly with sexual satisfaction and moderately with sexual function, psychological distress and relationship satisfaction. However, some of the correlations between the SDS-SF items and sexual function were weak rather than moderate.

Table 6

Correlations Between the SDS-SF Items and Score and Other Related and Unrelated Constructs

	SDS-SF					
	Item 1	Item 2	Item 3	Item 4	Item 5	Total score
GMSEX	-.44***	-.41***	-.37***	-.31***	-.36***	-.45***
ASEX	.22***	.29***	.19***	.18***	.29***	.28***
Drive	.09**	.19***	.10**	.10**	.20***	.17***
Arousal	.15***	.23***	.14***	.12***	.21***	.20***
Erection/lubrication	.15***	.25***	.16***	.13***	.22***	.22***
Orgasm	.17***	.21***	.14***	.13***	.20***	.21***
Satisfaction w/ orgasm	.25***	.24***	.17***	.17***	.26***	.26***
BSI-18	.26***	.29***	.31***	.30***	.34***	.36***
Somatization	.13***	.17***	.23***	.20***	.22***	.23***
Depression	.31***	.29***	.29***	.29***	.33***	.37***
Anxiety	.23***	.29***	.29***	.28***	.32***	.34***
CSI-4	-.32***	-.22***	-.27***	-.19***	-.12***	-.26***

Note. GMSEX: Global Measure of Sexual Satisfaction; ASEX: Arizona Sexual Experiences Scale; BSI-18: Brief Symptom Inventory–18; CSI-4: Couples Satisfaction Index–4.

** $p < .01$. *** $p < .001$.

Assumption 5

Tests of DIF and DTF revealed no substantial concerns across the groups examined (see Table 7). For sex and sexual orientation/gender identity, no items exhibited DIF. The sDTF statistic was nonsignificant and trivial in magnitude, indicating that, after equating for sexual distress, males and cisheterosexual participants did not differ meaningfully in their SDS-SF score compared to females and LGBT participants. Similarly, the uDTF statistic was very small, suggesting minimal divergence between the expected test score functions of the groups. For sexual distressing problems, three items (1, 2, and 5) showed DIF. However, the effect at the test level was negligible, as reflected in the nonsignificant and small sDTF statistic. Taken together, these findings indicate that the SDS-SF scores can be compared across sex, sexual orientation/gender identity, and the presence of sexual distressing problems.

Table 7

Items Flagged for DIF and DTF Statistics by Sex (Male vs. Female), Sexual Orientation/Gender Identity (Cisheterosexual vs. LGBT), and Sexual Distressing Problems (With vs. Without)

Group variable	Items flagged for DIF	sDTF [95% CI]	uDTF [95% CI]
Sex	None	0.14 [-0.06 – 0.35]	0.19 [0.06 – 0.47]
Sexual orientation / gender identity	None	0.06 [-0.11 – 0.29]	0.06 [0.04 – 0.30]
Sexual distressing problems	1, 2, 5	-0.07 [-0.29 – 0.14]	0.32 [0.17 – 0.61]

Assumption 6

Receiver operating characteristic (ROC) analysis demonstrated that SDS-SF score effectively discriminated between participants with and without sexual distressing problems (see Table 8). A cut-off value of 6.5 discriminated these two groups with balanced sensitivity and specificity (see Figure 5). As expected, direct comparison of the AUCs indicated that the SDS-SF score distinguished sexual distressing problems significantly better than sexual difficulties alone ($D = 2.70$, $p = .006$). In contrast, SDS-SF scores did not discriminate relationship status, and the AUC for sexual distressing problems was significantly higher than that for relationship status ($D = 10.58$, $p < .001$) (see Figure 5).

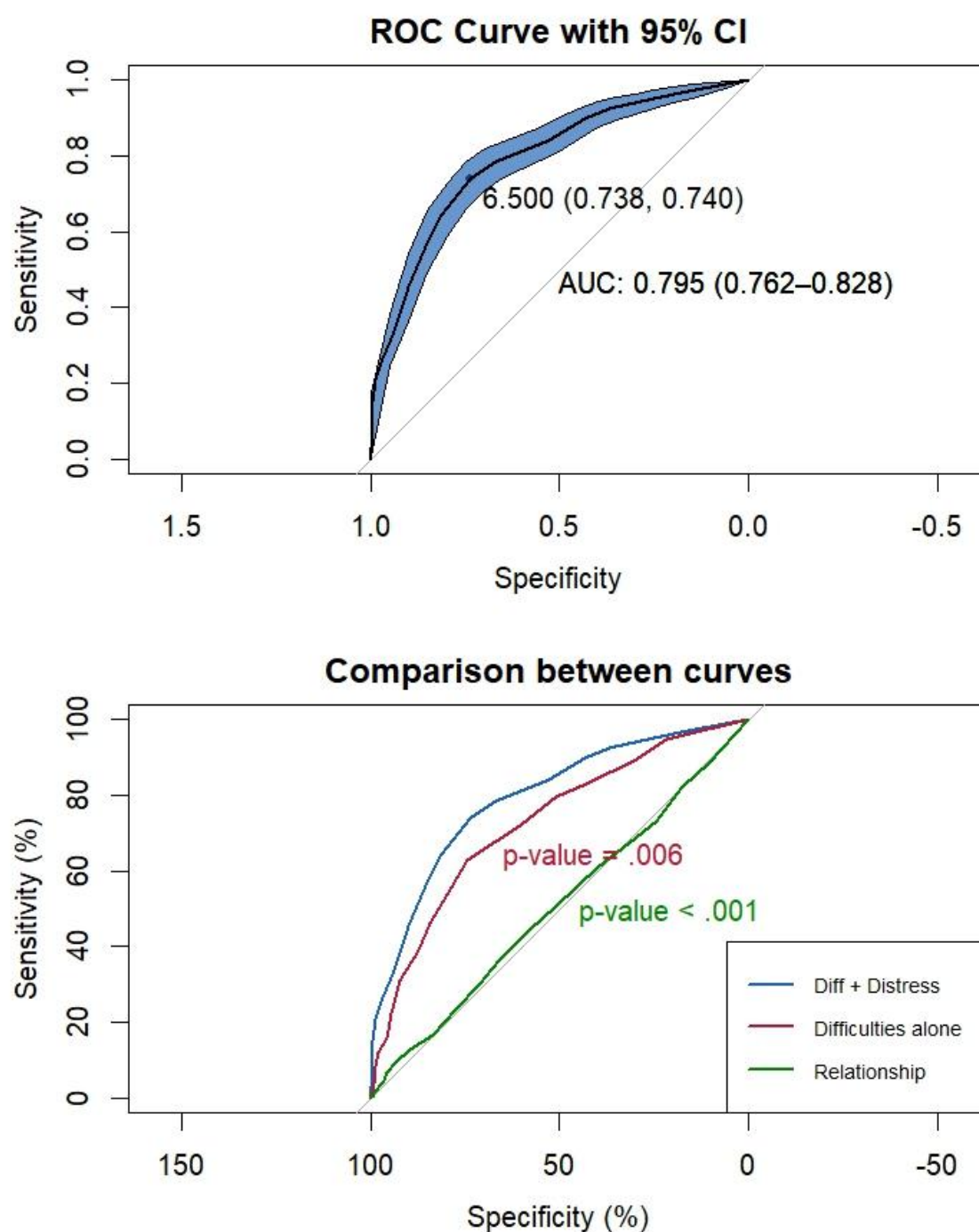
Table 8*Results of ROC Curves for the SDS-SF*

	AUC [95% CI]	Specificity	Sensitivity	D ^a
Sexual distressing problems	.79 [.76 – .83]	.74	.74	
Sexual difficulties	.73 [.69 – .76]	.75	.63	2.70**
Relationship status	.51 [.46 – .55]	.94	.09	10.58***

^aCompared to the AUC of the sexual distressing problems.** $p < .01$. *** $p < .001$.

Figure 5

ROC Curve for Sexual Distressing Problems (Above) and Comparison of the ROC Curves for Sexual Distressing Problems, Sexual Difficulties Alone, and Relationship Status (Below)



Discussion

The SDS/SDS-R, as well as their short version, the SDS-SF, are the most widely used instruments to assess sexual distress, such that they allow for the assessment of sexual distress in different countries and populations. This study validated the SDS-SF for the Portuguese context, considering that the short forms of the scales increase response rates and the probability of obtaining optimal answers from the respondents (Burisch, 1984; Edwards et al., 2004; Krosnick, 1999). As in several other previous studies, the scale demonstrated excellent psychometric properties. The results obtained offer confidence for the wide use of the SDS-SF in samples with different sexes and sexual health status, as well as with different sexual orientations and gender identities.

We proposed four interpretations/uses of the SDS-SF in Portuguese-language samples. The data collected support both the interpretation that the SDS-SF scores indicate levels of sexual distress and allow for the comparison of the frequency of sexual distress between females and males, individuals with and without sexual distressing problems, and cisheterosexuals and LGBT individuals. The six assumptions we proposed based on qualitative and statistical inferences were also supported and thus corroborated (Bardin, 2011; Hayes, 1997; Kane, 1992, 2013).

Content-based validity evidence revealed that participants, regardless of their sexual orientation or gender identity, considered the SDS-SF items to be clear, sufficient, and necessary to assess the construct of sexual distress. In addition, they showed that the Portuguese inclusive language (“a/o/e”) can be used without reservation, ensuring the inclusion and representation of all people. Although additional items were suggested, the participants themselves recognized that the five items of the scale already comprehensively captured the construct, so these suggestions were not applied. As Wanous and colleagues (1997) note, the brevity of a scale increases its facial validity, since a short scale is composed of a small number of items that best represent the construct assessed. Hence, the content validity results attest that the items in the Portuguese version of the SDS-SF are relevant and representative of the sexual distress of cisheterosexual and LGBT people.

The evidence based on the internal structure supported the unidimensional structure of the SDS-SF, in line with its original factorial structure (Santos-Iglesias et al., 2020). The results revealed a model with excellent fit to the data, with all factor loadings being substantial, except for item 5 (“Sexually inadequate”), which had the lowest loading and the highest residual variance. These results are consistent with what Santos-Iglesias and colleagues (2020) describe

about the nature of item 5 in a prior preliminary validation of the scale, as being “somewhat unique [given that it] refers to an evaluative statement that respondents may make about themselves, rather than to how they feel about their sexuality” (p. 17), and, therefore, their experience of sexual distress itself. The residual correlation matrix indicated negligible values, reinforcing that the items measure a single construct – sexual distress. In terms of reliability, the instrument demonstrated excellent internal consistency, as indicated by McDonald’s coefficient of .89, in line with its original preliminary validation study (Santos-Iglesias et al., 2020). Thus, the results indicate that the SDS-SF assesses a single, general domain (i.e., sexual distress), which reflects negative feelings of distress related to an individual’s sex life and sexual function.

Results of our study revealed that all items have moderate to very high discrimination capacity between individuals with different levels of the latent construct (i.e., sexual distress). Items 3 (“Stressed about sex”) and 4 (“Worried about sex”) were the most informative, while item 5 (“Sexually inadequate”) stood out as the least discriminative. The results also indicated that individuals need to experience higher levels of sexual distress to endorse higher responses on the items. As expected, the SDS-SF is more sensitive in identifying individuals with moderate to high levels of the construct, although there is some redundancy in this range. In other words, the items cover sexual distress well, especially at medium to high levels, such that the scale is more sensitive in identifying people with moderate to high sexual distress. Hence, the SDS-SF performed well in identifying individuals with different levels of sexual distress, as it distinguishes individuals with different scores.

In line with our predictions, the SDS-SF also showed good validity indices based on relations with other constructs and the results were consistent with theoretical expectations. As expected, SDS-SF scores showed strong negative correlations with sexual satisfaction. This link was expected, since sexual satisfaction encompasses positive feelings about one’s own sex life, which contrast with the experience of sexual distress, as supported by previous research (Santos-Iglesias & Walker, 2018; Santos-Iglesias et al., 2020; Tavares et al., 2022). The current results also reveal that sexual distress is associated with higher scores on all dimensions of sexual function. Of these dimensions, difficulties related to orgasm and erectile function showed the strongest correlations with sexual distress, which is consistent with previous research (Sánchez-Fuentes et al., 2014; Stephenson et al., 2018). The results also indicated that higher SDS-SF scores were moderately linked to greater psychological distress, which is also in line with previous evidence (Azimi Nekoo et al., 2014; Dennerstein et al., 2008; Ter Kuile et al. 2006) and reinforces the idea that experience of sexual distress is an important marker of

poorer sexual and psychological well-being. In fact, participants who scored higher on sexual distress also scored higher on symptoms of somatization, depression, and anxiety, with these associations being of moderate magnitude.

In addition, the results revealed a moderately negative correlation with relationship satisfaction for individuals who were in a relationship. This moderate correlation supports the idea that the experience of sexual distress may reflect some aspects of current sexual relationships, encompassing more than just distress related to sexual function. This result is consistent with the study by Tavares and colleagues (2022), in which sexual distress also showed moderate negative associations with dyadic adjustment for individuals who were in a relationship. Among the dimensions of dyadic adjustment measured in the study of Tavares and colleagues (2022), the strongest association was found for the dimension of dyadic consensus, which comprises areas of agreement or disagreement between partners, including sexual relations. Thus, these results emphasize the importance of assessing sexual distress comprehensively, and going beyond the mere assessment of distress related to sexual dysfunction, as is done by the SDS-SF.

Another aim of our study was to assess whether the SDS-SF worked differently considering diverse groups. The results indicated that the SDS-SF did not show differential functioning between any of the study's target groups – females and males, individuals with and without sexual distressing problems, and cisheterosexuals and LGBT individuals. The results indicated that the SDS-SF allows for the comparison of scores between these groups without concern for relevant statistical bias, even though three items showed small differences for people with and without sexual distressing problems. Thus, the present validation of the SDS-SF facilitates the comparison between individuals with and without sexual distressing problems, overcoming the limitation observed by Tavares and colleagues (2022) in the validation of the SDS/SDS-R for the Portuguese population. In this sense, the SDS-SF demonstrated strong discriminatory power between individuals with and without sexual distressing problems. A cutoff point of 6.5 allows for accurate screening in distinguishing between these groups, proving effective in correctly identifying the presence or absence of sexual distressing problems. This result is very relevant, as it shows that the SDS-SF allows for the identification of a typically neglected group, namely, the population with sexual distressing problems, both in clinical and research settings.

Finally, the SDS-SF demonstrated greater accuracy in identifying individuals experiencing sexual distress compared to assessments based solely on sexual difficulties. This finding highlights the scale's specificity and effectiveness in capturing the intended construct

of sexual distress. On the other hand, the scale did not discriminate against relational status, confirming that the SDS-SF measures sexual distress independently of being in a relationship or not. These results support the validity of the SDS-SF as an effective tool for assessing sexual distress in clinical and research settings.

However, the results should be interpreted considering some methodological limitations. The generalization of the data may be compromised, given that the sample was obtained through non-random sampling procedures, which may have introduced a selection bias, especially considering the voluntary nature of participation and the study's framework as an investigation into psychological and sexual well-being (Trivedi & Sabini, 1998). In addition, no assessment of the temporal stability of the SDS-SF was carried out, as this has been extensively supported by other validations of the scale (e.g., Santos-Iglesias et al., 2018b; Santos-Iglesias et al., 2020; Tavares et al., 2022), yet we recommend that future studies explore its test-retest reliability. The results also indicate that the scale reveals less discriminatory capacity at lower levels of sexual distress, so its application and interpretation should take this aspect into account. Finally, although the SDS-SF has demonstrated psychometric robustness in diverse samples, the individuals with sexual distressing complaints included in this study presented a variety of difficulties. Thus, future research should further analyze the psychometric properties of the SDS-SF in more clinically homogeneous samples to better understand the scale's performance in individuals with different sexual problems.

Conclusion

This study presents the first validation of the SDS-SF for the Portuguese context and offers several broad contributions to the field of sexual health assessment. The findings underscore the practical utility of the SDS-SF in clinical and research settings, where time-efficient and inclusive screening tools are essential. By incorporating inclusive language (“a/o/e”), the scale promotes equitable representation of gender diverse identities and sexual orientations, offering a validated psychometric scale for use in LGBT individuals in the domain of their sexual health and well-being, as proposed by previous studies (Mattawanon et al., 2021; Stark et al., 2021). Furthermore, the psychometric robustness of the SDS-SF supports its integration into broader protocols assessing sexual and relational well-being, and its potential use in cross-cultural research enhances its relevance for international comparative studies. These insights may inform public health initiatives and educational programs aimed at fostering

sexual well-being across diverse populations, especially people with sexual distressing problems.

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Appendix A

Table A1

Portuguese Version of the Sexual Distress Scale–Short Form (SDS-SF)

Encontra abaixo uma lista de sentimentos e problemas que as pessoas por vezes demonstram em relação à sua sexualidade. Após ler cada item cuidadosamente, por favor assinale a resposta que melhor descreve quão frequentemente cada problema a/o/e incomodou ou lhe causou sofrimento durante as últimas 4 semanas . Por favor, escolha uma opção por questão.		Nunca	Raramente	Ocasionalmente	Frequentemente	Sempre
1.	Com que frequência se sentiu angustiada/o/e com a sua vida sexual?	0	1	2	3	4
2.	Com que frequência se sentiu frustrada/o/e pelos seus problemas sexuais?	0	1	2	3	4
3.	Com que frequência se sentiu stressada/o/e por causa de sexo?	0	1	2	3	4
4.	Com que frequência se sentiu preocupada/o/e com sexo?	0	1	2	3	4
5.	Com que frequência se sentiu inadequada/o/e sexualmente?	0	1	2	3	4

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