Original Research / Özgün Araştırma

The validity and reliability study of the Turkish version of the Sexual Satisfaction Scale for Men (SSS-M)

Erkekler için Cinsel Memnuniyet Ölçeği'nin (CMÖ-E) Türkçe formunun geçerlik güvenirlik çalışması

Serpil Çetin[1], Gürkan Karadağ[2]

[1] İzmir Bakırçay University, Faculty of Health Siceence, Department of Women's Health and Diseases Nursing, İzmir, Turkey

[2] Ege University, Faculty of Medicine, Department of Pediatric Intensive Care Unit İzmir, Turkey

Yazışma / Correspondence

Serpil ÇETİN

Gazi Mustafa Kemal Mah, Kaynaklar Cd, Seyrek, Menemen 35665, Izmir / Türkiye

E-mail: serpilabali@gmail.com

Tel: +90 232 493 00 00/11257

Faks: +90 232 844 71 22

ORCID

S.Ç.   0000-0003-0922-7060

G.K.   0000-0003-2542-657X

Özet

Amaç: Bu çalışma, Meston ve arkadaşları tarafından geliştirilen Kadın Cinsel Memnuniyet Ölçeği'nin (CMÖ-K) değiştirilmiş versiyonunu olan Erkekler İçin Cinsel Memnuniyet Ölçeği (CMÖ-E) Türkçe formunun geçerli güvenilir bir araç olup olmadığını belirlemek amacıyla yapıldı. **Gereç ve Yöntemler:** Metodolojik bir çalışma olup, Mart – Temmuz 2021 tarihleri arasında gerçekleştirildi. 30 maddeli, beş alt boyutlu ve likert tipindeki ölçeğin, dil çeviri ve kapsam geçerliliği çalışmalarından sonra 30 kişilik bir gruba ön uygulaması yapıldı. Veriler, etik onay alındıktan sonra çevrimiçi ortamda 193 erkek bireyden elde edildi. Ölçeğin kapsam/içerik geçerliliği için Content Validity Index, geçerliliğini test etmek için Confirmatory Factor Analysis yapıldı. Güvenirliğini test etmek için, Cronbach Alfa ve madde-toplam puan korelasyonu test edildi. Ölçeğin zamana göre değişmezliğini test-retest ile değerlendirildi. **Bulgular:** Ölçek, kapsam geçerliliği sekiz uzman tarafından gözden geçirildi. Ölçeğin yapı geçerliği, doğrulayıcı ve açımlayıcı faktör analizi kullanılarak yapıldı. Doğrulayıcı faktör yükleri .55 ile .87 ve açımlayıcı faktör yükleri 0.34 ile .83 arasında bulundu. Her bir maddenin puanı ile ölçek puanı arasındaki korelasyon katsayısı r=.35-.80 olarak belirlendi (p<.001). Cronbach Alfa iç tutarlık ve güvenirlik katsayısı ölçeğin toplamında .95 ve alt boyutlarının ise

Abstract

Objective: This study was carried out to determine whether the Turkish version of the Sexual Satisfaction Scale for Men (SSS-M), a modified version of the Women Sexual Satisfaction Scale (SSS-W) developed by Meston and his friends is a valid and reliable tool or not.

Material and Methods: This is a methodological study and was conducted between March and July 2021. After the language translation and content validity studies of the 30-item of which Likert-type scale and five sub-dimensions a preliminary application was carried out on a group of 30 people. Data were obtained from 193 male individuals on an online platform after ethical approval. Whereas for the scope\content validity of the scale Content Validity was used, to test for validity Confirmatory Factor Analysis was performed. To verify its dependableness, the Cronbach Alpha score and item-total correlation score were tested. The time invariance of the scale was evaluated with a test-retest.

Results: The scale and content validity was reviewed by eight experts. The construct validity of the scale was performed by using confirmatory and exploratory factor analyses. Confirmatory factor loads were determined between .55 and .87, and exploratory factor loads were determined between 0.34 and .83. The correlation coefficient between the score of each

.82- .95'i olarak bulundu. Test-tekrar test güvenirlik analizinde anlamlı bir fark bulunmadı (p>.05). Maddelerin test-tekrar test korelasyonu ağırlıklı kappa değerleri 0.79-0.90.idi. **Sonuç:** Bu çalışmanın sonucunda, beş alt boyutlu "Erkekler İçin Cinsel Memnuniyet Ölçeği (CMÖ-E)" nin Türkçe versiyonunun dört boyutlu olarak geçerli ve güvenilir bir araç olduğu, araştırmalarda ve klinikte kullanılabileceğini belirlendi.

Anahtar Kelimeler: cinsel memnuniyet, erkekler, geçerlik, güvenirlik

item and the scale score was determined as r=.35-.80 (p<.001). The Cronbach Alpha internal consistency and reliability coefficients were found as .95 in the total of the scale and were found as.82-.95 in its sub-dimensions. No significant difference was found in the test-retest reliability analysis (p>.05). The weighted kappa values of test-retest correlation values of the items were 0.79-0.90.

Conclusion: As a result of this study, it was determined that the Turkish version of the five-dimension " SSS-M" is a valid and reliable four-dimensional instrument and can be used in research and clinic.

Keywords: Sexual satisfaction, men, validity, reliability

INTRODUCTION

Sexual satisfaction, a component of human sexuality, is considered the final stage of the sexual response cycle (1) and it's also an important factor that affects the quality of the individual's life. Thus, better physical and psychological health conditions (2,3), general well-being (1) and quality of life (4) are associated with high sexual satisfaction.

There are several definitions of sexual pleasure. One of the most accepted definitions is recommended by Lawrence and Byers (1995), who describe it as "an emotional response due to the subjective evaluation of positive and negative dimensions related to the person's sexual relationship" (5). Another sexual satisfaction is defined as the emotional response resulting from one's evaluation of one's sexual relationship, including the perception that one's sexual needs are met, fulfilment of self and partner's expectations, and a positive evaluation of the overall sexual relationship (1-4,6).

Despite the fact that satisfaction is defined as an emotional state that occurs when the expectations are met and/or exceeded (6), sexual satisfaction is defined as a situation that occurs with the fulfilment of individual wishes during sexual intercourse. Sexual satisfaction should not be confused with orgasm. It is associated with important variables such as relationship satisfaction and self-esteem and is indispensable for the continuity of the relationship for both men and women. Therefore, it is not surprising that sexual satisfaction is an important component of well-being for most individuals. Hence measuring sexual satisfaction for the individual is a very pivotal situation (3-6).

Although there are many male sexual satisfaction scales in the literature (4-7), there is no valid and reliable scale in Turkiye. Therefore, it is necessary to be developed or tailored suitable instruments for Turkish men. SSS-M is a modified version of SSS-W (8) for use in a male population. The Accurate Factor Analysis shows the consistency of the internal structure between the sexes. SSS-M can be considered a valid and reliable psychometric tool for measuring sexual satisfaction in men (9).

However, this is specific to the culture in which the scale is developed (9). Psychometric validation of the questionnaires related to sexual satisfaction, which is so culturally dependent, is required to be implemented in order to be applied in other cultures or languages. Therefore, in this study, it is determined whether the Sex Satisfaction Scale for Men (SSS-M) (9) Turkish version which is a modified version of SSS-W that is developed by Meston and her friends, is a valid and countable tool or not.

MATERIAL AND METHODS

This research was conducted online between March and July 2021 as a methodological study, since it examines whether the Turkish version of the Male Sexual Satisfaction Scale (SSS-M) is a valid and reliable tool. For this purpose, the universe of research was created by men over 18. To be able to analyse in reliability and validity of the scale, it is recommended that the number of scale items ought to be 5-10 times (10) and it is also stated that there must be at least 30 pairs of data to be performed of assessment (9). Therefore, in our planned research, the number of

substances (30 items) of the scale was based on the number of substances. The sample of study 18-65 consisted of 193 men who were members of social media groups and agreed to participate in the study, who were sexually active in the last four weeks, who had no chronic disease, who did not take continuous medication, who filled out the questionnaire form and provided a full return.

The application of the study was carried out in accordance with the steps mentioned in the international norms (10,11) to ensure the quality of an adapted scale as the adjustment is performed. For this, permission was attained via e-mail from Cindy Meston and Bridget Freihart, who first developed the scale. Accordingly, the following steps were followed to establish the scale for the Turkish version, to establish the content validity and to focus on pilot tests:

- The SSS-M was translated into Turkish and culturally adapted in accordance with stages recommended by Beaton et al. (2000)(12). Translation involved four steps: two native Turkish speakers-an English lecturer and nursing lecturer specializing in women's sexuality-independently translated the scales; the translated instrument was modified into a format better suited to the structure of the Turkish language; the translated scale was then back-translated into English by a bilingual native-English speaker who was not involved in the initial translation; subsequently, the equivalence of the back-translated and original scale was assessed by all translators and the primary investigator to ensure that the conceptual meaning of each item had been maintained.

- Six experts evaluated the translated instrument's content validity: four doctors and two nursing faculty members specializing in men's sexuality. They were asked to evaluate and rank the wording of each item as follows: 1 = not suitable; 2 = item needs revision; 3 = suitable, but requires minor changes; 4 = perfectly suitable. The content validity index (CVI) was calculated based on the experts' ratings. A CVI score of ≥ .85 indicates good content validity (13).

- The translated scale was first tested with 30 men

with similar characteristics to the intended final sample. Participants were asked to comment on the items and make suggestions for the improvement of the tools. Since the pilot test results showed no perceptible language problem, the final version of the scale was created.

- For the validity and reliability of the scale, psychometric evaluation (factor analysis, reliability analysis; internal consistency, and test-retest) was performed.

- Test-retest analysis was performed to evaluate the test's invariance over time. In this test, it is recommended that there should be at least two weeks and a maximum of four weeks (10,11) between the first measurement and the second measurement, and the test should be carried out with at least 30 people (10).

Data Collection

In order to collect data, a 13-question survey form was prepared by the researchers in accordance with the literature (14,15) and the (SSS-M) form was used. The variables measured by the questionnaire form are age, education level, employment status, obtained income level, marital/relationship status, marriage/relationship duration and frequency of sexual intercourse.

Sexual Satisfaction Scale – Male consists of 30 subject scales and it was developed by Meston and Trampnell in 2005 (8). While the 29 items [5] of the scale are put in order as the five types of liquert: strongly disagree, [4] slightly disagree, [3] neither agree nor disagree [2] agree a little bit and [1] agree, another substance is put in order as [5] is completely satisfying, [4] very satisfying, [3] reasonably satisfying, [2] agree slightly and [1] absolutely agree. The five sub-dimensions of the scale include satisfaction, communication, accordance, personal concern and relational concern. The interpretation of the scale without a cut-off point is the higher the score obtained, the more sexual satisfaction. Taken scores from this measurement indicate that the individual has more sexual satisfaction. Average scores are calculated

for each lower scale. SSS-M reliably distinguishes men with or without sexual dysfunction. SSS-M measurement shows that among men with sexual dysfunction (r =0.62–.79) and men without sexual dysfunction (r =0.58–.79) can be accepted in terms of internal consistency (Cronbach's α ≥0.74) (9).

Statistical Analysis

For analysis of data SSPP dat. 20.0 (SPSS, Chicago, III) and LISREL programs were used. Descriptive statistics, averages, median, frequencies and percentages are used to demonstrate the distribution of male sociographic characteristics. Pearson multiplication moment correlation at α = 0.01 and two-way Paired Samples t-test at α = 0.01 were used to test the reliability and validity of the scale. Content validity refers to the extent to which a measure represents all aspects of a particular social construct (16). CVI was used to measure content validity with 8 experts evaluating the meaning of the substances. The adequacy of the SSS-M's five-factor model (satisfaction, communication, accordance, self-interest, and relational concern) was tested with confirmatory factor analysis and various indices of the model were estimated. (10,11,16,17) Reliability and Pearson Product Moments Correlation Coefficient was evaluated by using item-total correlation. In addition, Cronbach's alpha coefficients were determined and the internal consistency of the SSS-M was evaluated. The time invariance of the scale and its sub-dimensions was evaluated with the t-test (Paired-Samples t-test) and Pearson Product-Moment Multiplication Correlation Coefficient in dependent groups. (10,11)

RESULTS

Characteristics of Participants

In the study, a total of 193 men completed the survey. It was determined that the average age of men was 33.4±7.6 (Min:20, Max:58) and that they were married for an average of 10.4±9.05 years. It was determined that nearly half of the men (48%) were in the 30-39-year-old group, 34% were bachelors, more than half were employees (66.3%), most of them (77%) considered income states as 'medium', 40.7% were in

0-5 years of marriage and that the sex relationship frequency was once a week (32.3%) or 2-3 times a week (38.3%). The arithmetic means of the items in the 5-point Likert structure of the Sexual Satisfaction Scale for Men of the study participants ranged between X =3.13±1.01 and 3.84±0.84.

Internal Consistency; Analysis of Substances

In Table 1, the contribution of the scale items to the scale was given, and the contribution of the current item to the overall scale was shown in each row. Accordingly, the total correlation value of the scale of substance scale was found between 0.35 and 0.79 (Table 1).

Factor Analysis

The measurement of Keiser-Meyer-Olkin (KMO) sampling competency was used in the factor analysis of the scale. In this study, the value obtained for KMO was calculated as 0,928. In addition, Bartlett's sphericity test p-value, which is the measure of the significance of the correlation matrix of the items in the factor analysis, was found as <0.001.

The SSS-M of which consists 30 items, of the participants participating in the research was evaluated in terms of satisfaction (6 items), sub-dimension, Communication (6 items), sub-dimension of agreeableness (6 items) and anxiety (12 items). In this framework, a descriptive factor analysis was performed to reveal the factor pattern of the tool. For the purpose of revealing the factor pattern of SSS-M, principal component analysis as the factorization method and varimax which is one of the vertical rotation methods, as rotation was chosen. The numbers of the items in the satisfaction sub-dimension (6 items) of SSS-M are items 1, 2, 3, 4, 5 and 6.

Substance numbers are 7, 8, 9, 10,11, and 12 for the subdimensions of communication (6. substance). Substance numbers are 13, 14, 15, 16,17, and 18 for the coherance subdimensions (6.substance). Substance numbers are 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, and 30 for subdimension of concern. The factors analysis was collected under a total of 4 factors as a result of the varimax rotation. The 4-factor structure which is consisted of 30 substances, describes 64.707% of the total variance. As it is seen in Table 2, 4 factors were

Table 1. Reliability: Total Correlation of matter

			Substance Analysis		
	Scale Average when the item is removed	Scale variant when the item is removed	Material Scale Total Correlation	Multiple Annotation Coefficient ()	Scale Alpha when item is removed
M1	104.8342	405.285	0.350	0.507	0.956
M2	105.2073	395.457	0.538	0.544	0.954
M3	104.9223	390.791	0.697	0.707	0.953
M4	104.9171	401.233	0.454	0.448	0.955
M5	104.7772	397.966	0.528	0.448	0.954
M6	105.3109	397.195	0.527	0.533	0.955
M7	104.8964	395.687	0.642	0.625	0.954
M8	105.1036	395.343	0.555	0.550	0.954
M9	104.7409	403.183	0.392	0.690	0.956
M10	104.8705	400.363	0.464	0.710	0.955
M11	104.6010	404.272	0.429	0.731	0.955
M12	104.7876	402.908	0.456	0.694	0.955
M13	104.9896	387.292	0.697	0.661	0.953
M14	104.7617	391.943	0.668	0.586	0.953
M15	104.8756	387.630	0.703	0.610	0.953
M16	104.9119	388.695	0.744	0.733	0.953
M17	104.6373	395.170	0.619	0.586	0.954
M18	104.7617	389.557	0.682	0.636	0.953
M19	104.6477	390.511	0.706	0.653	0.953
M20	104.9585	386.915	0.712	0.643	0.953
M21	104.6062	391.115	0.597	0.634	0.954
M22	104.7513	386.782	0.796	0.778	0.952
M23	104.8135	386.653	0.720	0.709	0.953
M24	104.7565	386.841	0.746	0.749	0.953
M25	104.7409	387.620	0.718	0.779	0.953
M26	104.7927	385.738	0.728	0.780	0.953
M27	104.6062	389.917	0.644	0.635	0.954
M28	104.8031	384.680	0.765	0.832	0.952
M29	104.8497	383.358	0.753	0.853	0.953
M30	104.6891	383.924	0.748	0.785	0.953

Table 2. Factors Analysis Results for Size of Satisfaction Scale for Men]

	Gender Satisfaction Scale for Men Subdimensions	Frozen Factor loads *	Described as Variants
	Contentment (α=0.817)		
M1	I'm generally satisfied with my current sexual life.	0.816	
M2	I feel like something is missing in my sex life.	0.668	
M3	I feel like I haven't been emotionally close enough to my wife in my sex life.	0.350	
M4	I am satisfied with the frequency of sexual intimacy. such as kissing and having sexual intercourse.	0.551	4.515%
M5	I am not experiencing any major issues or concerns about stimulation. orgasms. frequency of sexual intercourse. harmony with my partner and communication.	0.617	
M6	How satisfying is your current sexual life for you?	0.655	
	Communication (α=0.866)		
M7	When I want to talk about our sex life. my partner often has a defensive attitude.	0.337	
M8	My partner and I don't talk and share sufficiently our sexual lives.	0.435	
M9	When my partner wants to talk about our sex life. I speak freely.	0.824	
M10	When I want to talk about our sex life. my partner talks to me freely.	0.834	6.646%
M11	When my partner wants it. I can easily explain my deepest feelings and emotions to her.	0.826	
M12	When I want it. my partner can easily explain to me her deepest feelings and emotions	0.787	
	Compatibility (α=0.881)		
M13	I don't think my partner is aware of or care sufficiently about my sexual desires and desires.	0.686	
M14	I don't think my partner and I are sexually compatible in general.	0.636	
M15	I think my partner's sexual beliefs and attitudes are very different from mine.	0.581	9.160%
M16	I think my partner and I are different in terms of need and desire for sexual intimacy.	0.649	
M17	I don't think we find each other physically attractive enough.	0.548	
M18	I don't think my partner and I have the same sexual style and preferences.	0.696	
	Concern (α=0.951)		
M19	I'm worried that my sexual problems upset my partner.	0.556	
M20	I'm worried that my sexual problems adversely affect our relationship.	0.635	
M21	I'm worried about my partner can have an affair with someone else because of my sexual problems.	0.724	
M22	I'm worried my partner isn't sexually satisfied.	0.742	
M23	I'm worried that my wife might see me as a deficient man because of my sexual problems.	0.697	44.386%
M24	I think I let my wife down because of my sexual problems.	0.769	
M25	My sexual problems bother me.	0.778	
M26	My sexual problems are causing me have sexual dissatisfaction.	0.825	
M27	I'm worried about ı can have an affair with someone other than my wife because of my sexual problems.	0.717	
M28	My self-perception is affected by my sexual concerns.	0.721	
M29	I feel bad about because of my sexual concerns.	0.830	
M30	I feel uncomfortable with my sexual problems and ı am angry about them.	0.796	

Rotation Method: Varimax   **Total described variance:** 64.707%
KMO = 0.928 $\chi 2(435)$ = 4337.492; **Bartlett Sphericity Test (p)** <0.001; α=0.954

explained respectively: the first-factor "Concern" was a subdimension of 44.386% of the variance, the second-factor "Compatibility" was a subdimension of 9.160%, the third-factor "Communication" was subdimension of 6.646%, and the fourth factor "Contentment" was subdimension of 4.515% (Table 2).

SSS-M which is consist of 30 substances was evaluated in terms of satisfaction, communication, Compatibility and concern. In this framework, to disclose the tool's factor pattern explanatory factor analysis (EFA) was performed. After EFA it was found that factorization consisted of 4 sub-dimension and a structural equation model (SEM) of the experimental data was created. According to structural equation model tests, it was determined that ($p<0.001$) acceptivity of Compatibility was of ($p<0.05$, X2/SD =2.42). According to the results of the secondary level multi-factor model verification factor analysis, it was determined that other scale acceptivity of Compatibility indices were RMSEA 0.086, and GFI 0.866 (Figure I).
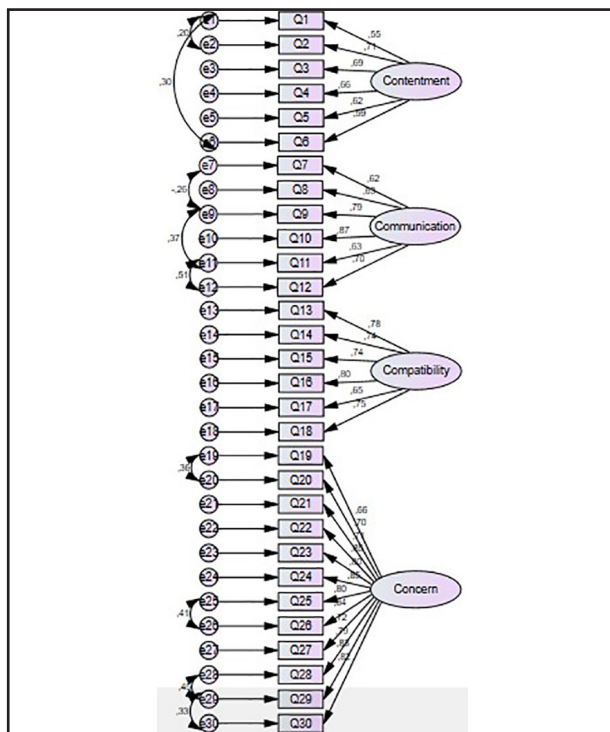

Figure 1. Scale's Structural Equalization Model for Secondary Level Multifactor Validation Factor Analysis

Internal consistency; Cronbach Alpha

Reliability was evaluated by using the Cronbach Alpha coefficient, which measures the internal consistency of measurements obtained with a tool. It was determined that the reliability coefficients of the SSS-M and its sub-dimensions of the participants in the questionnaire were: Satisfaction (0.817), Communication (0.866), Compatibility (0.881), Concern (0.951) and Total (0.954), which had very good reliability.

Test-Retest

In order to evaluate the scale of SSS-M and its sub-dimensions invariance over time scores averages taken from the reliability analysis test and test-retest were compared with t-test (Paired-Samples) in dependent groups and it was found that there was no statistically significant difference between the average scores of the two measurements performed with a two-week interval ($p>0.05$). The weighted kappa values of test-retest correlation values of the items were 0.79-0.90.

When the relationship between the points obtained from the first and second application was examined, it was determined that ($p<0.001$) the Pearson Moments Multiplication Correlation Coefficient was between r=0.91 and 0.96; there was a very strong, positive and statistically very significant correlation between the total score and the scores of two repeated measurements of all factors.

DISCUSSION

The most important result of this study is that the Turkish version of SSS-M shows acceptable reliability and validity for four sub-dimensions.

Content/scope validity and construct validity are the most preferred ones in assessing the validity of a scale (10). In the preparation of the Turkish version of the SSS-M, the language validity of the scale was tried to be ensured with translation and back translation method with experts in the subject and language field. Opinions of 8 experts were taken to evaluate the language and cultural compatibility of the items of the SSS-M, translated into Turkish. According to the experts' evaluations, a KGI score of ≥0.92 was

calculated as good content validity because a KGI score of >0.80 is recommended (18). In accordance with these results, it can be said that the expressions of SSS-M are suitable for Turkish culture and represent the area wanted to be measured. The scale, which was rearranged with expert opinions, was tested with a pre-test on 30 people, and the scale was given its final form (11,19,20).

In order to determine the contribution of the substances in the scale to the scale, the Item Scale Total Correlation values are the most explanatory criterion. For the total correlation of matter and factor load values, Çokluk et al.(2012) stated that the total correlation of substances 0.30 and higher distinguished well the individuals (21). No substance of the individual's ECM Scale is below 0.30 and the lowest value is M1 to 0.350. Therefore, it can be said that the contribution of substances to the scale is sufficient.

The suitability of the sample to be investigated in factor analysis to factor analysis can be realized with many different methodologies. The Kaiser-Meyer-Olkin sample adequacy measure is one of these methodologies. While KMO is changing between 0 and 1, taking a value around 1 shows that it is sufficient for the sample. The KMO value was determined as 0.928, and it was reasoned that this value for the size of the sample was '' excellent''(21). It is also necessary to measure the meaning of the correlation matrix of the substances involved in the factor analysis (21). Bartlett's globalization test, which measures whether the correlation matrix is a unit matrix or not, the p-value was calculated as <0.001, which measures whether the correlation matrix is a unit matrix.

In our study, the 4-factor consisting of 30 substances explains 64.707% of the total variance. In multi-factor patterns, it is considered that explained variance of more than 50% is sufficient (10,21). In this framework, it is seen that contribution which is done by a defined factor is enough.

The structural equation model tests provide evaluation measures (Compatibility indices) about which how suitable the model is for collected data

for that model (20). The various compliance indexes formed as a result of the test of a model's compatibility or incompatibility with the data can be evaluated. The most common and sort of initial harmonization index is the statistic Chi-squared. The Chi-square test result is tested for consistency between data and model. With the developed model, the hypothesis is tested whether the model that emerges in the variance-covariance structure of the observation variables is different or not. As long as the calculated Chi-square statistical value is small, it is decided that the match is fine. In literature, the generally accepted level of the chi-square test degree of freedom is less than 5, however, when this level is less than 3, it indicates good Compatibility. According to the work, the obtained chi-squared value was calculated as 2.420, however, the proper value is p-value <0.001. Good compliance testing is tested by nonmeaningful Chi-squared analysis. However, the only valid statistical measurement for compliance measurement is not Chi-square testing. When the literature was examined (16,17,23,24), the validity of the model was tested by giving the Compatibility indices, RMSEA, k-squared/sd, CFI, GFI, IFI, and TLI, which are the most reported indices.

Based on the results of the secondary level multi-factor model verification factor analysis, it can be said that the consistency index of the scale; RMSEA 0.086, GFI 0.753, and CFI 0.866 are acceptable level and coherent. In addition, the regression coefficients in the model are each p-value < 0.05 small. Moreover, the correlation/covariance coefficients established between the variables, p-value<0.05 are small and significant.

One of the recommended methods for assessing internal consistency in Likert-type scales is the Cronbach Alpha reliability coefficient. If the Cronbach Alpha coefficient is less than 0.40, the measuring tool is not reliable. If it is between 0.80 and 1.00, it is considered highly reliable (10). Besides, the Cronbach Alpha coefficient is considered to be highly reliable, if it ranges from 80 to 1.00 (10,11). While In the analysis for internal consistency in the reliability study of the SSS-M, which was adapted into Turkish, the Cronbach

Alpha reliability coefficient was found as =0.95, the research carried out by Çetin and Aslan (2018) it was found as 96 and it was determined that internal consistency was highly reliable (25). The Cronbach Alpha reliability coefficients of the sub-dimensions of SSS-M were found between =0.81 and 0.95. It was determined that the Cronbach Alpha coefficients of the English and Turkish versions of the scale were similar. These results show that the Turkish version of the scale has a high level of internal consistency like the English version.

When the average scores obtained from the test and retest as a reliability analysis were compared with the t-test in the dependent groups, it was determined that there was no statistically significant difference between the average scores of the two measurements carried out with an interval of 2 weeks (p>0.05). That No difference indicate that the scale measures similar results in measurements made at certain intervals, and that there is consistency/validity between measurements (10). When the relationship between the points obtained from the first and second performances was examined, it was found that the Pearson Moment Multiplication Correlation coefficient was between r=0.91 and 0.96, and there was not much difference between the two performances and the stability of measurements obtained from the test (10).

CONCLUSION

In this study, in which the validity and reliability of the Male Sexual Satisfaction Scale (SSS-M) were tested for Turkish men, the adaptation studies were carried out in accordance with international scientific methods and it was determined that the Turkish version of the scale met the validity and reliability criteria. It was determined that the factor structure of the original was compatible with the factor structure of the Turkish form and the reliability values of the Turkish form were similar to the original scale and ultimately, it was concluded that the scale could be used for determining Turkish men's sexual satisfaction.

Conflict of Interest

The authors declare to have no conflicts of interest.

Informed Consent

Informed consent was obtained from all individual participants included in the study

Ethical Approval

The study was approved by İzmir Bakırçay University Non-Interventional Clinical Research and Publication Ethics Committee Board (approval date and number: 2021/236). Men were informed as to the study. And their verbal and written consent was taken. Plus, Permission was taken from Cind Mston and Bridget Freeihart, who are the first developers of scale, via e-mail.

Author Contributions

Conception and design; SÇ,GK Data acquisition; SÇ,GK, Data analysis and interpretation; SÇ,GK, Drafting the manuscript; SÇ, Critical revision of the manuscript for scientific and factual content; SÇ,GK, Statistical analysis; SÇ, Supervision; SÇ.

REFERENCES

1. Yoobin P, MacDonald G. Single and Partnered Individuals' Sexual Satisfaction as a Function of Sexual Desire and Activities: Results Using a Sexual Satisfaction Scale Demonstrating Measurement Invariance Across Partnership Status. Archives of sexual behavior. 2022; 51(1): 547-564. https://doi.org/10.1007/s10508-021-02153-y

2. Scott V.C, Sandberg J.G, Harper J.M, Miller R. B. The impact of depressive symptoms and health on sexual satisfaction for older couples: implications for clinicians. Contemporary Family Therapy. 2012;34,376-390. https://doi.org/10.1007/s10591-012-9198-2

3. Çetin S, Aslan E. The analysis of female sexual functions, sexual satisfaction and depressive symptoms according to menstrual cycle phases, Sexual and Relationship Therapy. 2022;37:2, 253-271. DOI: 10.1080/14681994.2020.1792875

4. Štulhofer A, Jurin T, Graham C, Enzlin P, Træen B. Sexual well-being in older men and

women: Construction and validation of a multi-dimensional measure in four European countries." Journal of Happiness Studies. (2019): 20(7) 2329-2350. https://doi.org/10.1007/s10902-018-0049-1

5. Lawrance K.A, Byers E S. Sexual satisfaction in long-term heterosexual relationships: The interpersonal exchange model of sexual satisfaction. Personal Relationships. 1995;2(4),267–285. https://doi.org/10.1111/j.1475-6811.1995.tb00092.x

6. Offman A, Matheson K. Sexual compatibility and sexual functioning in intimate relationships. Canadian Journal of Human Sexuality. 2015;1(2):31-39.

7. Nimbi, F. M., Tripodi, F., Rossi, R., & Simonelli, C. Expanding the analysis of psychosocial factors of sexual desire in men. The Journal of Sexual Medicine. 2018;15(2): 230-244. https://doi.org/10.1016/j.jsxm.2017.11.227

8. Meston C, Trapnell P. Development and validation of a five-factor sexual satisfaction and distress scale for women: the Sexual Satisfaction Scale for Women (SSS-W). Journal of Sexual Medicine. 2005;2,66-81. https://doi.org/10.1111/j.1743-6109.2005.20107.x

9. Freihart BK, Stephenson K, Crosby CL, Meston CM. The Sexual Satisfaction Scale for Men (SSS-M). https://labs.la.utexas.edu/mestonlab/the-sexual-satisfaction-scale-for-men-sss-m/ (Erişim Tarihi: 13.09.2022).

10. Çapık C, Gözüm S, Aksayan S. Kültürlerarası ölçek uyarlama aşamaları, dil ve kültür uyarlaması: Güncellenmiş rehber. Florence Nightingale Journal of Nursing. 2018;26(3):199-210. https://doi.org/10.26650/FNJN397481

11. Tavşancıl E. Tutumların ölçülmesi ve spss ile veri analizi. 2002, Ankara: Nobel Yayıncılık.

12. Beaton D.E, Bombardier C, Guillemin F, Ferraz M. B. Guidelines for the process of crosscultural adaptation of self-report measures. SPINE. 2000; 25, 3186–3191.

13. Erkut S, Alarcon O, Garcia Coll C, Troop L.R, Vazquez Garcia H. A. The dual-focus approach to creating bilingual measures. Journal of Cross Cultural Psychology. 1999; 30, 206–218.

14. Ghobadzadeh S, Hasani J, Mohammadkhani S, Akbari M. A Multidimensional Model of Sexual Health Scale for Men; Design and Psychometrically Evaluation of Iranian Version. Iranian Journal of Psychiatric Nursing. 2019; 7(2): 13-21. https://doi.org/10.21859/ijpn-07203

15. Sanders S.A, Herbenick D, Reece M, et al. The development and validation of a brief quality of sexual experience (QSE) scale: Results from a nationally representative sample of men and women in the United States. J Sex Med. 2013;10:2409–2417. https://doi.org/10.1111/jsm.12198

16. Viren S, Barron D. Translation and validation of body image instruments: Challenges, good practice guidelines, and reporting recommendations for test adaptation. Body image . 2019;3(1): 204-220. https://doi.org/10.1016/j.bodyim.2018.08.014

17. Şimşek Ö.F. Yapısal eşitlik modellemesine giriş: Temel ilkeler ve LISREL uygulamaları. 2007; Cem Web Ofset, Ankara.

18. Orçan F. Exploratory and confirmatory factor analysis: Which one to use first?. Journal of Measurement and Evaluation in Education and Psychology. 2018;9(4): 414-421. https://doi.org/10.21031/epod.394323

19. Ron D, Norton B. Investment and motivation in language learning: What's the difference?. Language Teaching. 2021:1-12. https://doi.org/10.1017/S0261444821000057

20. Goyal A.K, Bakshi J, Panda N.K., et al. A hybrid method for the cross-cultural adaptation of self-report measures. International Journal of Applied Positive Psychology. 2021;6(1): 45-54. https://doi.org/10.1007/s41042-020-00039-3

21. Çokluk Ö, Şekercioğlu G, Büyüköztürk Ş. Sosyal Bilimler İçin Çok Değişkenli İstatistik: SPSS ve Lisrel Uygulamaları. Pegem Akademi Yayıncılık. 2012; Ankara.

22. Şahin M, Eren A. Jamovi: an easy to use statistical software for the social scientists. International Journal of Assessment Tools in Education.

2019;6(4):670-692.	https://doi.org/10.21449/ijate.661803

23. Mueller R. O, Hancock G.R. Structural equation modeling. The reviewer's guide to quantitative methods in the social sciences. Routledge. 2018; 445-456.(e-book)

24. Tabachnick BG, Fidell LS. Çok değişkenli istatistiklerin kullanımı. (Çev. Ed. Mustafa Baloğlu). Nobel Akademik Yayıncılık. 2015;Ankara.

25. Çetin SA, Aslan E. Validity and Reliability of the Turkish Version of the Sexual Satisfaction Scale for Women. Sexuality & Culture. 2018;22(3), 881-893. https://doi.org/10.1007/s12119-018-9499-1