RESEARCH ARTICLE

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Turkish Adaptation of the Mental Health Literacy Scale for Healthcare Students: A Study of Validity and Reliability

ABSTRACT

Objective: This study has aimed to investigate the validity and reliability of the Turkish version of the Mental Health Literacy in Healthcare Students (MHLS-HS).

Methods: The study sample comprises 275 students at Istanbul Medical Faculty between the ages of 18 and 27. Data were collected using the MHLS-HS, the Beliefs about Mental Illness Scale (BMI), and the Positive Mental Health Scale (PMS). For language adaptation, translation, back translation, expert comments, and a trial application were conducted. Validity was determined using the content validity index and confirmatory factor analysis, while reliability was determined using Cronbach's alpha analysis and the test-retest method.

Results: The content validity index of the scale was found to be 0.99 and the item loads were found to be 0.38-0.94 according to confirmatory factor analysis. The Cronbach's alpha coefficient was found to be 0.79 for the whole scale and between 0.60-0.89 for the five sub-dimensions. In equivalent criterion validity, it was determined that BMI had a weak negative correlation ($r=-0.360$, $p<0.001$) and a weak positive correlation ($r=0.327$, $p<0.001$) with PMS. A statistically significant difference was found in the sub-dimensions of Maintaining Positive Mental Health, Stigmatizing Mental Illnesses, and Seeking Help Effectiveness between those with and without mental illness in the discrimination analysis of the RSS-SS scale ($p<0.001$, $p=0.029$, $p=0.034$, respectively).

Conclusions: The Mental Health Literacy Scale in Healthcare Students was found to be valid and reliable. It can be used to assess and improve the educational experience of medical school students.

Keywords: Mental Health Literacy, Validity, Reliability, Healthcare Students, Scale.

Sağlık Öğrencileri İçin Ruh Sağlığı Okuryazarlık Ölçeğinin Türkçeye Uyarlanması: Geçerlik ve Güvenirlik Çalışması

ÖZET

Amaç: Bu çalışmada, Sağlık Öğrencileri için Ruh Sağlığı Okuryazarlık Ölçeğinin (RSOÖ-SÖ) Türkçe uyarlaması için geçerlilik ve güvenilirlik yapılması amaçlanmıştır.

Gereç ve Yöntem: Çalışma örneklemi 18-27 yaş arasında İstanbul Tıp Fakültesinde öğrenim gören 275 kişiden oluşmaktadır. RSOÖ-SÖ ölçeği, Ruhsal Hastalıklara Yönelik İnanç Ölçeği (RHYİÖ) ve Pozitif Mental Sağlık Ölçeğini (PMSÖ) veri toplamada kullanılmıştır. Dil uyarlaması için çeviri, geri çeviri, uzman görüşleri ve pilot uygulama yapılmıştır. Geçerlik için kapsam geçerlilik indeksi, doğrulayıcı faktör analizi ve güvenilirliği test etmek için Cronbach alfa analizi, test-tekrar test yöntemi kullanılmıştır.

Bulgular: Ölçeğin kapsam geçerlilik indeksi 0.99 ve doğrulayıcı faktör analizine göre madde yükleri 0.38-0.94 olduğu bulunmuştur. Cronbach alfa katsayısı tüm ölçek için 0.79, beş alt boyutu için ise 0.60-0.89 arasında olduğu belirlenmiştir. Eşdeğer ölçüt geçerliliğinde RHYİÖ ile negatif yönlü zayıf korelasyon ($r=-0.360$, $p<0.001$), PMSÖ ile ise pozitif yönlü zayıf korelasyon ($r=0.327$, $p<0.001$) gösterdiği saptanmıştır. RSOÖ-SÖ ölçeğinin ayırt edicilik analizinde ruhsal hastalığı olan ve olmayanlar arasında Pozitif Ruh Sağlığını Sürdürme, Ruhsal Hastalıkları Damgalama ve Yardım arama etkinliği alt boyutlarında istatistiksel olarak anlamlı fark saptanmıştır (Sırasıyla $p<0.001$, $p=0.029$,$p=0.034$).

Sonuç: Sağlık Öğrencileri için Ruh Sağlığı Okuryazarlığı Ölçeğinin geçerli ve güvenilir olduğu saptanmıştır. Tıp fakültesi öğrencilerinde eğitimin değerlendirilmesi ve iyileştirilmesi için kullanılabilir.

Anahtar Kelimeler: Ruh Sağlığı Okuryazarlığı, Geçerlik, Güvenirlik, Sağlık Öğrencileri, Ölçek.

INTRODUCTION

The World Health Organization (WHO) describes mental health as "a condition of well-being that an individual recognizes his or her strengths, can handle the usual demands of life, might work effectively, and also can make a significant contribution to his or her society"(1). Worldwide, an approximated 322 million individuals suffer from depression, 264 million from anxiety, 45 million from bipolar illness, 20 million from schizophrenia, and 50 million from dementia (2,3). More than 70% of these people are unable to get help from health professionals as they avoid and delay treatment due to a lack of knowledge to define mental illness, being unaware of how to access treatment, prejudice towards those with mental illness and fear of stigmatization (4,5).

Mental health literacy is a significant factor in mental health and has the order to enhance public mental health. (6). Studies have reported that knowing mental health and diseases increases one's awareness in seeking help and treatment, benefiting from health services and early diagnosis and reducing mental illness stigma in society (7,8) Several scales such as the Vignette Interview, the Mental Health Literacy Scale (MHLS), and the Mental Health Literacy Scale for Youth and Young Adults (MHLq) have been developed to determine one's mental health literacy (9-12). These scales were created to measure and examine the literacy levels of the public, but various studies have shown that mental health literacy should also be improved in healthcare professionals and students (medical school students, nursing students, health vocational school students, etc.) (13). Healthcare professionals and students have high levels of stress, burnout, anxiety and depression (14,15). Healthcare professionals and students exhibit a pervasive stigma, as well as unfavourable attitudes and beliefs, toward those with mental illness. Therefore, healthcare professionals and students may refuse to explain and ignore their mental problems and avoid seeking help and treatment (16,17). In addition, studies have reported that mental illnesses can be overlooked in primary care centres, whereby their diagnosis rates are low (18,19).

Previous studies have suggested identifying and improving mental health literacy among healthcare professionals and students. However, there is no Turkish scale to determine mental health literacy for healthcare students. Mental Health Literacy Scale for Healthcare Students, which covers five essential components of health literacy (maintaining healthy mental health, recognizing mental illness, a stigma attitude, help-seeking efficacy, and help-seeking attitude), may fill this gap (13). This study aimed to adapt the Mental Health Literacy Scale for Healthcare Students into Turkish and to determine its Turkish validity and reliability.

MATERIAL AND METHODS

Study Design and Sample Size: This methodological study was undertaken with healthcare students aged 18 to 27 who studied at the Istanbul University Faculty of Medicine during the educational year 2021-2022 and volunteered to participate. The data were collected online between November 2021 and March 2022. Filling out the questionnaire lasted around 20 minutes. The sample size in scale adaptation studies should be at least 5-10 times the number of scale items. Therefore, a total of 275 people were reached in this study (the number of scale items = 26) (20). Two weeks after the first phase of data collection, the questionnaire was sent again for re-testing to health students who already filled out it, and a total of 104 healthcare students responded. Ethical approval was received by the Social and Humane Ethics Committee (Dated: 30/03/2021 E-155284) at Istanbul University, and permission from Yin-Ju Lien, the co-author of the article, via e-mail, to use and verify the validity and reliability of the scale in Turkish (February 26, 2021).

Data Collection Tools: The data were gathered using a personal information form that included questions on healthcare students' sociodemographic characteristics of healthcare students and the Mental Health Literacy Scale for Healthcare Students (MHLS-HS). The data collection form included two additional scales, namely Positive Mental Health Scale (PMSÖ) and the Beliefs toward Mental Illness Scale (RHYİÖ), to examine the equivalent criterion validity of the scale.

The Mental Health Literacy Scale for Healthcare Students (MHLS-HS): The MHLS-HS was designed by Chao et al. utilizing a total of 1294 medical and public health undergraduate students from 11 universities to assess mental health literacy among healthcare students (13). It consists of 26 items and five 5 subscales (M = Maintenance of positive mental health 10 items; R = Recognition of mental illness 4 items; S = Mental illness stigma attitude 6 items; HE = Help-seeking efficacy 3 items; HA = Help-seeking attitude 3 items). This is a 5-point Likert type scale, scoring from 1 (strongly disagree) to 5 (strongly agree). The scale is interpreted through total and subscale scores, where the subscale of "S= Mental illness stigma attitude" is scored in reverse. A higher score indicates better mental health literacy. The MHLS-HS has good reliability. The Cronbach's alpha coefficient for the whole scale was 0.81 and varied from 0.70 to 0.87 for its subscales. The correlation of the MHL-HS with the Social Distance Scale and the Positive Mental Health Scale, which were used to achieve similar scale validity, supported the convergent validity of the MHL-HS, and higher MHL-HS total scores were significantly associated with lower social distance toward people with

mental illness (r = -0.26, respectively; $p < 0.001$, r = 0.35; $p < 0.001$) (13).

Positive Mental Health Scale (PMSÖ): Positive Mental Health Scale (PMHS) was developed by Lukat et al. (2016) and adapted into Turkish by Yılmaz-Akbaba and Eldeleklioğlu (2019) (21,22). It consists of nine items, scoring from "Not True (1) to "True (4)". The internal consistency coefficient of the PMSÖ was determined to be 0.85, and substantial positive connections were established between the PMSÖ and the scales used for similar scale validity.

Beliefs toward Mental Illness Scale (RHYİÖ): The Beliefs towards Mental Illness Scale (BMI) was created by Hirai and Clum (2000) and adapted into Turkish by Bilge and Çam (2008) (23,24). This is a 6-point Likert-type scale, scoring from "Totally Disagree (0)" to "Totally Agree (5)". It consists of 21 items and three subscales, involving danger, lack of social and interpersonal skills, and incurability. The Cronbach's alpha coefficient was 0.82 for the entire scale and ranged from 0.69 to 0.80 for the subscales.

Translation of the Scale and a Pilot Application: The steps of translation, back-translation and pilot application were followed sequentially to create the Turkish form of the scale. A professional translator who graduated in English language literature (C.B.) translated the scale from English to Turkish. A foreign citizen whose mother tongue is English and who speaks Turkish (K.Y.) translated it back from Turkish to English.

Upon the consensus of the researchers, the scale items were evaluated and scored by a total of seven experts, including six physicians and one psychiatric nurse, in terms of their accuracy, suitability and intelligibility for health students (M.Ç., A.M., L.B.A, S.U.U., E.Ç.K., Ü.Z., G.A.M.). Davis method was used to assess items on the scale, scoring "inappropriate (1)", "should be seriously reviewed (2)", "should be slightly revised (3)", and "appropriate (4)" (25). The content validity ratio (CVR) of the scale items ranged from 0.86 to 1.00, and the content validity index (CGI) was calculated to be 0.99.

A pilot application was conducted with a group of 30 healthcare students to evaluate the intelligibility of the scale. The data obtained from the pilot application were not used in the study.

Data Analysis: Before the analysis, the presence of missing data in the data set was checked (even though the scale was set in a way that respondents could not answer the next question without answering the previous one, thus the possibility of missing data was eliminated). The Kolmogorov-Smirnov test was utilized to determine whether or not the data has a normal distribution. The distribution of the data was not normal. As the data lacked a normal distribution, the Mann Whitney U test and Spearman's correlation analysis were applied for statistical analysis. The internal consistency and reliability of the scale and its subscales were evaluated using Cronbach's alpha. Correlation analysis and Interclass Correlation (ICC) analysis were used to compare the test-retest scale scores for time invariance. The construct validity of the scale was determined using confirmatory factor analysis (CFA). Davis method was used to calculate the CGI and CVR values, where the limit values for CVR and CGI should be above 0.80 and 0.67, respectively (25). PMSÖ and RHYİÖ were used for the convergent and discriminant validity of the scale. A p-value less than 0.05 was considered statistically significant. On the scale, items with reverse scores were scored in reverse. The IBM SPSS (Social Sciences Statistical Package) 20 package program, AMOS and Lisrel program were used to examine the data.

RESULTS

Characteristics of the Participants: The mean age of 275 healthcare students who agreed to participate in the study was 20.9±2.1 years (range, 18-27), 59.3% of them were women. In addition, 26.5% of them (n=73) were 1st graders, 19.6% (n=54) 2nd graders, 12.4% (n=34) 3rd graders, 7.6% (n=21) were 4th graders, 16.4% (n=45) were 5th graders and 17.5% (n=48) were 6th graders, 9.5% (n=26) they had chronic health issues, and 14.9% (n=41) had mental illness in the past.

Validity Analysis of the Mental Health Literacy Scale for Healthcare Students (RSOÖ-SÖ):

Content Validity: The scale was evaluated for content validity by seven field experts (M.Ç., A.M., L.B.A, S.U.U., E.Ç.K., Ü.Z., G.A.M.). The content validity ratio (CVR) of the scale items ranged between 0.86 and 1.00, and the content validity index (CGI) of the scale was determined as 0.99.

Construct Validity: A confirmatory factor analysis (CFA) was performed for the construct validity of the RSOÖ-SÖ. As a result, an item (numbered 4) in the subscale of "Maintenance of Positive Mental Health (M)", stating "*having religious or spiritual beliefs*", had a factor loading as 0.07, and an item (numbered 3) in the subscale of "Recognition of Mental Illness (R)", stating "*if one needs higher doses of a drug to achieve the same effect; to what extent do you think he/she is likely to have a substance-related addiction?*", had factor loading as 0.20. These two items were excluded from the scale due to low factor loadings. The CFA was conducted over 24 items and 5 subscales. CFA fit indices of the scale were as follows: χ^2/df 1.46, Root mean square error of approximation (RMSEA) = 0.041, Comparative fit index (CFI) = 0.96, Incremental fit index (IFI) = 0.96, Non-normed fit index (NNFI) = 0.95, Goodness-of-fit index (GFI) = 0.90, Standardized root mean square residual (SRMR)= 0.056, and Critical N (CN) = 219.37. Factor loadings of the scale items ranged between 0.38 and 0.94. Figure 1 shows the confirmatory factor analysis of the scale.

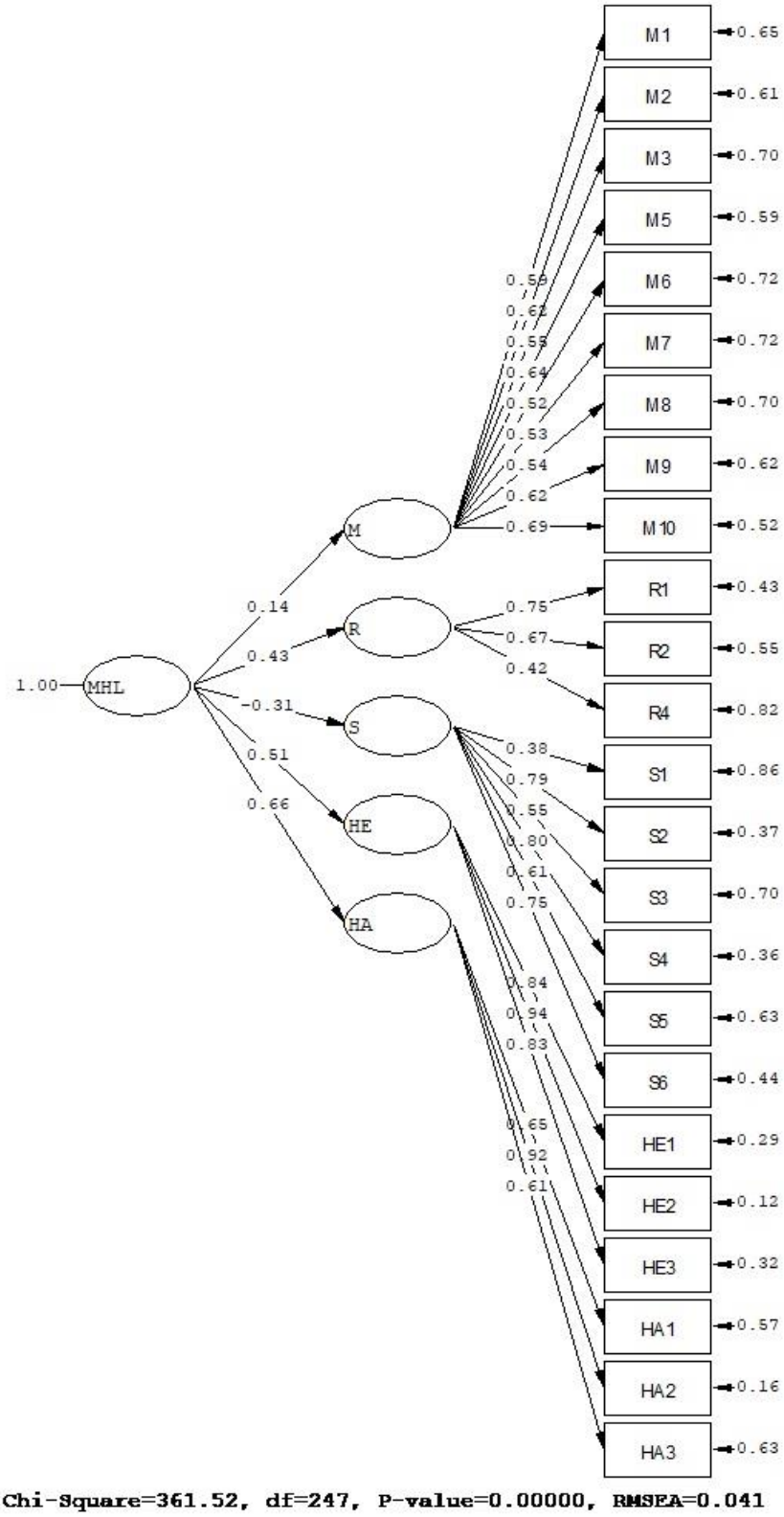

Figure 1. Confirmatory factor analysis diagram of the Mental Health Literacy scale for Healthcare Students

Equivalence Validity of the RSOÖ-SÖ: For the equivalence validity of the Mental Health Literacy Scale for Healthcare Students, its correlation with RHYİÖ and PMSÖ was evaluated, whereby the RSOÖ-SÖ had a weak negative correlation with RHYİÖ (r=-0.360, p<0.001) and a weak positive correlation with PMSÖ (r=0.327, p<0.001) (Table 1).

Differential Validity of the RSOÖ-SÖ: Table 2 compares the RSOÖ-SÖ and subscales scores of healthcare students according to the presence of mental illness.

Table 1. The correlation coefficients of the Beliefs towards Mental Illness Scale and the Positive Mental Health Scale of the RSOÖ-SÖ Scale and its sub-dimensions

	RHYİÖ	PMSÖ
MHLS-HS	-0.360**	0.327**
M	-0.028	0.125
R	-0.102	0.395**
S	-0.620**	-0.404**
HE	-0.114	0.651**
HA	-0.200**	0.523**

M = Maintenance of positive mental health R = Recognition of mental illness; Mental illness stigma attitude; HE = Help-seeking efficacy; HA = Help-seeking attitude; RHYİÖ= Beliefs towards Mental Illness Scale; PMSÖ = Positive Mental Health Scale ** p<0.001.

Table 2. Comparison of the RSOÖ-SÖ Scale and sub-dimension scores of the students according to the presence of mental illness

	Mental illness		
	None (n=234)	**Yes (n=41)**	**p**
M, median (1Q-3Q)	33(29-36)	28(24-32)	**<0.001**
R, median (1Q-3Q)	12(11-14)	13(12-14)	0.371
S, median (1Q-3Q)	21(19-24)	23(20-26.5)	**0.029**
HE, median (1Q-3Q)	12(9-14)	12(10.5-15)	**0.034**
HA, median (1Q-3Q)	10(8-12)	12(9-14)	0.070
MHLS-HS, mean±sd	88(80-94.3)	88(79-94)	0.837

M = Maintenance of positive mental health R = Recognition of mental illness; Mental illness stigma attitude; HE = Help-seeking efficacy; HA = Help-seeking attitude

Reliability Analysis of the RSOÖ-SÖ:

Internal Consistency Analysis of the RSOÖ-SÖ: The Cronbach's alpha reliability coefficient was found to be 0.796 for the total scale and ranged between 0.608 and 0.899 for its five subscales (Table 3). The item-total correlations were weak, moderate and positive (r=0.241-0.517). The correlation between the total scale and subscales scores ranged between 0.348 and 0.676 (p<0.001) (Table 4).

Table 3. The item score averages, factor loadings and internal consistency reliability

Sub-Dimensions	**Items**	**Median (1Q-3Q)**	**Factor Loadings**	**Cronbach's alpha**
M	M1	4(3-4)	0.59	0.826
	M2	4(3-4)	0.62	
	M3	4(3-4)	0.55	
	M5	4(3-5)	0.64	
	M6	4(2-5)	0.52	
	M7	4(3-4)	0.53	
	M8	4(3-4)	0.54	
	M9	3(2-4)	0.62	
	M10	3(2-4)	0.69	
R	R1	3(3-4)	0.75	0.608
	R2	4(4-5)	0.67	
	R4	4(4-5)	0.42	
S	S1	4(3-5)	0.38	0.810
	S2	1(1-2)	0.79	
	S3	2(1-3)	0.55	
	S4	3(3-4)	0.80	
	S5	2(2-3)	0.61	
	S6	3(2-4)	0.75	
HE	HE1	2(1-2)	0.84	0.899
	HE2	4(3-4)	0.94	
	HE3	4(3-5)	0.83	
HA	HA1	4(3-5)	0.65	0.758
	HA2	4(3-5)	0.92	
	HA3	3(3-4)	0.61	
RSOÖ-SÖ score		88(80-94)		0.796

Table 4. Correlation coefficients of the scores of the RSOÖ-SÖ Scale and its sub-dimensions

Sub- dimensions	M	R	S	HE	HA
R	0.081	-	-	-	-
S	0.043	0.130*	-	-	-
HE	0.114	0.233**	0.085	-	-
HA	0.088	0.226**	0.211**	0.326**	-
MHLS-HS	0.676**	0.348**	0.504**	0.532**	0.548**

M = Maintenance of positive mental health R = Recognition of mental illness; Mental illness stigma attitude; HE = Help-seeking efficacy; HA = Help-seeking attitude; p<0.05, ** p<0.001.

Test-Retest Reliability of the RSOÖ-SÖ: Two weeks later, the scale was reapplied to a total of 104 participants (50.5% (n=52) male) and the intragroup correlation coefficient (ICC) was calculated. The ICC was 0.894 for the total scale score (CI: 0.844-0.929). The total score correlation was found to be positive and very strong (r=0.875, p<0.001).

DISCUSSION

Mental health literacy is crucial to understanding how to improve and sustain positive mental health, identifying mental illnesses and treatment options, minimizing the drip of various psychiatric, increasing help-seeking efficacy and developing self-management skills, and is associated with the events frequently encountered in the course of a lifetime. This study examined the validity and reliability of the Mental Health Literacy Scale for Healthcare Students (MHLS-HS) in Turkish culture.

Discussion of Validity Analysis: A confirmatory factor analysis, which is an effective tool in assessing whether the factor model in the original scale is compatible with the data of the study was conducted to measure the construct validity of the scale (26). As a result, an item (numbered 4) in the subscale of "Maintenance of Positive Mental Health (M)" and an item (numbered 3) in the subscale of "Recognition of Mental Illness (R)" was excluded from the scale due to low factor loadings (0.07 and 0.20, respectively). Therefore, the subscale of Maintenance of Positive Mental Health included nine items, the subscale of Recognition of Mental Illness included three items, and the number of items in other subscales did not change. The factor loadings of the scale's last 24 items varied from 0.38 to 0.94. The factor loadings of scale items may vary by study. The factor loadings of the items in the scale were determined as 0.45 and above by Büyüköztürk et al. (27) and between 0.32-0.44 by Dede and Yaman (28). In our research, just two scale items had factor loadings of 0.38 and 0.42, while the remaining items had acceptable, very good, and excellent factor loading fit. Chao et al. found that the factor loadings ranged from 0.41 to 0.95(13). The CFA analysis revealed $\chi 2/df = 1.46$, RMSEA=0.041, IFI=0.96, CFI=0.96, GFI= 0.90, and SRMR=0.056, where $\chi 2/df \leq 3$, RMSEA $\leq$ 0.05, IFI $\geq$ 0.95 and GFI $\geq$ 0.90 indicated good fit of the scale and CFI $\geq$ 0.95 and SRMR $\leq$ 0.08 indicated acceptable fit of the scale (29). Therefore, the CFA and goodness-of-fit statistics of the scale items in our study were good and at the desired level.

For equivalent criterion validity of the scale, its correlation with RHYİÖ was analyzed and a weak negative correlation was identified between them (r=-0.360, p<0.001). A high score on the RHYİÖ indicates a negative belief (24). Therefore, we can conclude that as the mental health literacy of health students increases, their negative attitudes towards mental illness decrease. In addition, for the equivalent criterion validity of the scale, its correlation with PMSÖ was also evaluated and a weak positive correlation was identified between them (r=0.327, p<0.001). A high PMSÖ score suggests great positive mental health. (22). Help-seeking efficacy and help-seeking attitude, two subscales of the RSOÖ-SÖ, showed higher correlations with the PMSÖ (0.651 p<0.001 and 0.523 p<0.001, respectively). Chao et al. (13) found a low positive correlation between the scale and the PMSÖ (r=0.35 p < 0.001).

Discussion of Reliability Analysis: The item-total score correlations of 24 items were positive, weak and moderate (r=0.241-0.517). The correlation coefficient between the overall scale and the five subscales ranged from 0.348 to 0.676. Positively significant relationships between the whole scale and subscale scores were obtained (p<0.001). This consequence theoretically coincides with the fact that as the mental health literacy level of healthcare students increases, they are willing to expand their knowledge about achieving and sustaining excellent mental health, their awareness of mental disorders and treatments, and their attitudes toward stigma reduction and help-seeking effectiveness.

The overall scale's Cronbach's alpha reliability coefficient (α) was determined to be 0.79 and ranged between 0.60 and 0.89 for its subscales, where $0.60 \leq \alpha \leq 0.80$ indicates that the scale is quite reliable (30). According to Chao et al., Cronbach's alpha coefficient was 0.81 for the entire scale and 0.70-0.87 for its subscales (13). Accordingly, our results comply with those reported by Chao et al.(14). In the adaptation study of the Mental Health Literacy Scale (MHL) to young adults (MHL-q), Cronbach's alpha was found to be 0.84 for the overall scale and 0.60 to 0.74 for the subscales. However, the items (29 items) and subscales (4

subscales) of the MHL-q are quite different from those in our scale (12).

The scale was re-applied two weeks later to assess its time consistency, and its first and second application scores were found to have a strong and positive correlation (r=0.875, p<0.001). An ICC analysis was performed to evaluate the agreement between test and retest scores of the scale, which was determined to have statistical significance (p<0.001). Thus, the scale was found to have test-retest reliability.

Discussion on the Relationship between Descriptive Characteristics and Subscales of the Scale: The healthcare students with mental illness had lower scores on the subscales of maintaining psychological wellbeing, mental disease stigma attitude, and higher scores on the subscale of help-seeking efficacy than those without mental illness, and the difference between them was statistically significant (respectively <0.001, 0.029, 0.034). Studies have indicated that persons with greater mental health literacy have better mental health and a less social distance from those with mental illness (30,31).

Items on the subscale of Maintenance Positive Mental Health subscale (M) of the RSOÖ-SÖ include items to positively affect competence, autonomy and mental health. Studies have reported that meeting these basic psychological needs leads to a better quality of life and mental health (32). Therefore, healthcare students, who will become health professionals in the future, should be provided with better mental health and better patient care (33).

The subscale of Recognition of Mental Illnesses (R) of the RSOÖ-SÖ includes items to identify mental illnesses such as schizophrenia, anxiety disorders, depression etc. Several mental disorders are common both in Turkey (34) and across the world (18). Increasing the knowledge of healthcare students on recognition of mental illness is important for early diagnosis and treatment when they graduate and start providing health services.

Another subscale of the RSOÖ-SÖ is the mental illness stigma attitude. Jorm and Kitchener have found that mental health literacy interventions and knowledge about mental illnesses reduce stigma (35). Link and Phelan explained that recognition of mental illness and labelling can have both positive and negative aspects, where labelling other persons can be stigmatizing and labelling oneself can be a facilitator in treatment (36). If healthcare students can easily recognize mental illnesses and avoid labelling and stigmatization, they can accelerate patients' recovery. Discriminating tendencies of healthcare students can be detected using the scale and relevant educational interventions can be applied to them (13).

Strengths and Limitations: According to our knowledge, the RSO-S is the first instrument particularly created to measure mental health literacy among students in the healthcare field. Public healthcare students participated in the study of the original scale, but this study was conducted only with medical faculty students. However, there are no public healthcare students in undergraduate education in Turkey as the public health speciality is considered a separate branch after medical school. Therefore, we did not include public health assistants to avoid bias in the sample selection. In addition, our study does not represent all healthcare students in Turkey as it was conducted in a single faculty. Further studies can use different healthcare student groups and can be performed in multi-centred faculties. This is a self-report scale, therefore, even though invisibility and clandestinity are ensured during the study, the measurement of stigmatization towards mental health may not be completely independent of social desirability bias.

CONCLUSION

Our research suggests that the Turkish version of the RSOÖ-SÖ is a valid and reliable instrument with an adequate model fit. The RSOÖ-SÖ captured the multidimensionality appropriately, and the analysis confirmed the suitability of its five-factor structure. This scale encompasses both mental health promotion and many dimensions of mental health, including stigma and awareness of the mental illness. It allows rapid and comprehensive evaluation of mental health literacy among healthcare students and to conduct remedial curriculum studies in medical schools.

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