

## PAPER DETAILS





TITLE: The Validity and Reliability Study of Mental Health Literacy in Young Adults (MHLq)

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PAGES: 219-227

ORIGINAL PDF URL: <https://dergipark.org.tr/tr/download/article-file/2795327>

RESEARCH  
ARTICLE

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Received: 25.11.2022

Acceptance: 05.05.2023

DOI: 10.18521/kt.1210310

**Konuralp Medical Journal**

e-ISSN1309-3878

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**The Validity and Reliability Study of Mental Health Literacy in Young Adults (MHLq)****ABSTRACT**

**Objective:** The validity and reliability of the Turkish version of the Mental Health Literacy Scale (MHLq) in young adults were examined in this study.

**Methods:** This methodological investigation was carried out throughout the 2018–2019 academic year at a public university. The MHLq, created by Dias et al. in 2018, and a sociodemographic data form were used to gather the data. 350 students between the ages of 18 and 25 participated in the study.

**Results:** A pilot study was done to translate the scale into Turkish once it had been translated from its original language and reviewed by experts. The scale validity as well as its construct validity, internal consistency, and time invariance were tested using the content validity index, confirmatory factor analysis, item analyses, reliability, Cronbach's alpha analysis, and test-retest scores. The scale is four-dimensional, as was found. Confirmatory factor analysis revealed that the scale's item loads varied between 0.40 and 0.73 while its content validity was 0.98. Its 0.91 Cronbach's alpha value was discovered. The participants' average mental health literacy scores were  $84.45 \pm 7.80$ .

**Conclusions:** The analyses made showed that the MHLq could be safely used as a measurement tool for young adults' mental health literacy.

**Keywords:** Young Adult, Mental Health, Mental Health Literacy, Validity, Reliability.

**Genç Yetişkinlerde Ruh Sağlığı Okuryazarlığının Geçerlilik ve Güvenilirlik Çalışması (MHLq)****ÖZET**

**Amaç:** Bu çalışma, Ruh Sağlığı Okuryazarlığı Ölçeği'nin (MHLq) genç erişkinlerde Türkçe geçerlilik ve güvenilirlik çalışması üzerine yapılmıştır.

**Gereç ve Yöntem:** Bu metodolojik araştırma, 2018–2019 akademik yılı boyunca bir devlet üniversitesinde gerçekleştirildi. Dias ve diğerleri tarafından oluşturulan MHLq 2018 yılında veri toplama aracı olarak sosyodemografik veri formu kullanılmıştır. Çalışmaya 18-25 yaş arası 350 öğrenci katılmıştır.

**Bulgular:** Ölçek orijinal dilinden Türkçe'ye çevrilmiş, profesyonel görüş alınmış ve Türkçe'ye çevrilmesi için pilot çalışma yapılmıştır. Ölçeğin geçerliliği, yapı geçerliliği, iç tutarlılığı ve zamanla değişmezliği test etmek için içerik geçerlik indeksi, doğrulayıcı faktör analizi, madde analizleri, güvenilirlik, Cronbach alfa analizi ve test-tekrar test puanları kullanılmıştır. Ölçek görüldüğü gibi dört boyutludur. Doğrulayıcı faktör analizi, ölçeğin madde yüklerinin 0.40 ile 0.73 arasında değiştiğini ve kapsam geçerliliğinin 0.98 olduğunu ortaya koymuştur. 0.91 Cronbach alfa değeri keşfedildi. Katılımcıların ortalama ruh sağlığı okuryazarlığı puanları  $84,45 \pm 7,80$ 'dir.

**Sonuç:** Yapılan analizler, MHLq'nin genç yetişkinlerin ruh sağlığı okuryazarlığı için bir ölçüm aracı olarak güvenle kullanılabileceğini göstermiştir.

**Anahtar Kelimeler:** Genç Yetişkin, Ruh Sağlığı, Ruh Sağlığı Okuryazarlığı, Geçerlilik, Güvenilirlik.

## INTRODUCTION

Understanding the concept of mental health, which cannot be characterized solely by the absence of psychopathology, requires examining the beliefs that influence and safeguard mental health (1). One of these is mental health literacy (MHL), a crucial idea. The development of MHL, which falls under the category of preventive mental health care and is viewed as a tool to support positive mental health, lessen harms brought on by mental illness, and improve mental health, is a focus in many countries and a study topic (2,3). The initial definition of mental health literacy, according to Jorm and colleagues, was "Knowledge and beliefs surrounding mental disorders that aid in their recognition, management, or prevention" (4). The low rates of help-seeking or help-to-receive behaviors for mental illnesses provide people with serious challenges to realize the problems that are related to their mental disorders and take action to find solutions for their problems, cause delays in seeking and receiving professional help, incomplete treatment, and an increase in the rates of hospitalization and the use of emergency care services (4-7). Individuals can only become aware of mental disorders and take action to address their issues if they are well-informed about the issue and have a high level of mental health literacy (5). In addition, it is stated that high-level mental health literacy (MHL) approaches and developed tools that comprehensively cover concepts related to mental health problems make a significant contribution to improving mental health and well-being worldwide (8). In this context, the World Health Organization (WHO) has developed a comprehensive definition of mental health literacy (4).

Before the definition developed by WHO, mental health literacy, knowledge and attitude (9,10), knowledge about mental disorders and stigma related to mental health. Various measuring instruments have been developed within the framework of (5,11-15). However, the majority of these tools have been developed for certain dimensions of mental health literacy or certain mental disorders, and their scope has been limited (3,10,16). The MHLQ-young adult form, on the other hand, is a scale that surpasses the limited structure of other scales and evaluates it from a broader perspective. It is also a more up-to-date form that examines the concept of mental health literacy from the perspective of the WHO. Besides few scales were adapted to Turkish, most of which measured the MHL level of young people (3,10).

Individuals can only become aware of mental disorders and take action to address their issues if they are well-informed about the issue and have a high level of mental health literacy (5).

Young people are among the risk groups for mental disorders and constitute a significant part of the disease burden globally (17,18). (In addition, young people who do not receive therapy have poor

levels of understanding about mental health and low rates of seeking treatment for mental diseases, not knowing the institutions or professionals they can apply to, and delays in seeking professional help (1,5,7,8,16,20). In this consideration, it is necessary to address MHL in the young population to discuss mental health needs and improve mental health (16). Mental Health Literacy Scale (MHLQ) MHLQ evaluates mental health literacy among young adults from a broader perspective. We think it's crucial to determine the scale's psychometric characteristics and adapt it to Turkish. This study incorporated self-reports of young adults' mental health literacy on a wider conceptual foundation and attempted to conduct a Turkish adaptation of the MHLQ in young adults, which was established by Dias et al. in 2018 (8).

## MATERIAL AND METHODS

This study used a systematic approach to conduct a Turkish validity and reliability study of the Mental Health Literacy Scale (MHLQ) in young adults.

**Sample Size and Study Design:** This methodological study aims to develop the MHLQ for usage in Turkey by conducting a validity and reliability analysis of the instrument. The sample size in methodological investigations is determined in a variety of ways. Comrey and Lee (1992) assigned the sample size ratings of 50 (very poor), 100 (weak), 200 (moderate), 300 (excellent), 500 (very good), and 1000 (amazing) for their scale validity and reliability research (21). Şencan (2005), on the other hand, considered the sample below 100 to be very low, the sample between 100 and 200 to be low, the sample between 200 and 300 to be medium, the sample between 300 and 500 to be good, the sample between 500 and 1000 to be very good, and the sample above 1000 to be excellent has accomplished (22). In this study, 350 people who were considered good to very good sample size were included in the study between April and June 2019 (23). The participants were verbally briefed about the goal of the study in their classroom before being handed written informed consent forms to sign. The data collection materials were given to the students who signed the consent form and consented to participate. It took roughly 13 minutes to complete the research forms. Ordu University ethics committee gave its clearance for this study (25/04/2019-KAEK-58-2019-68) and permission was obtained from the Ordu University (No:17/04/2019-81515450-663.08).

The scale's responsible author, Pedro Dias, who created it via email, gave his consent in writing before it could be translated into Turkish. The participants gave their written agreement after being informed of the study's objectives and that participation was completely optional. Following a thorough examination of the forms and the exclusion of any that were incomplete or wrongly

completed, 350 forms were utilized to gauge the tool's validity and reliability. Participants in the study ranged in age from 18 to 25 and were voluntarily enrolled and did not have any communication problems.

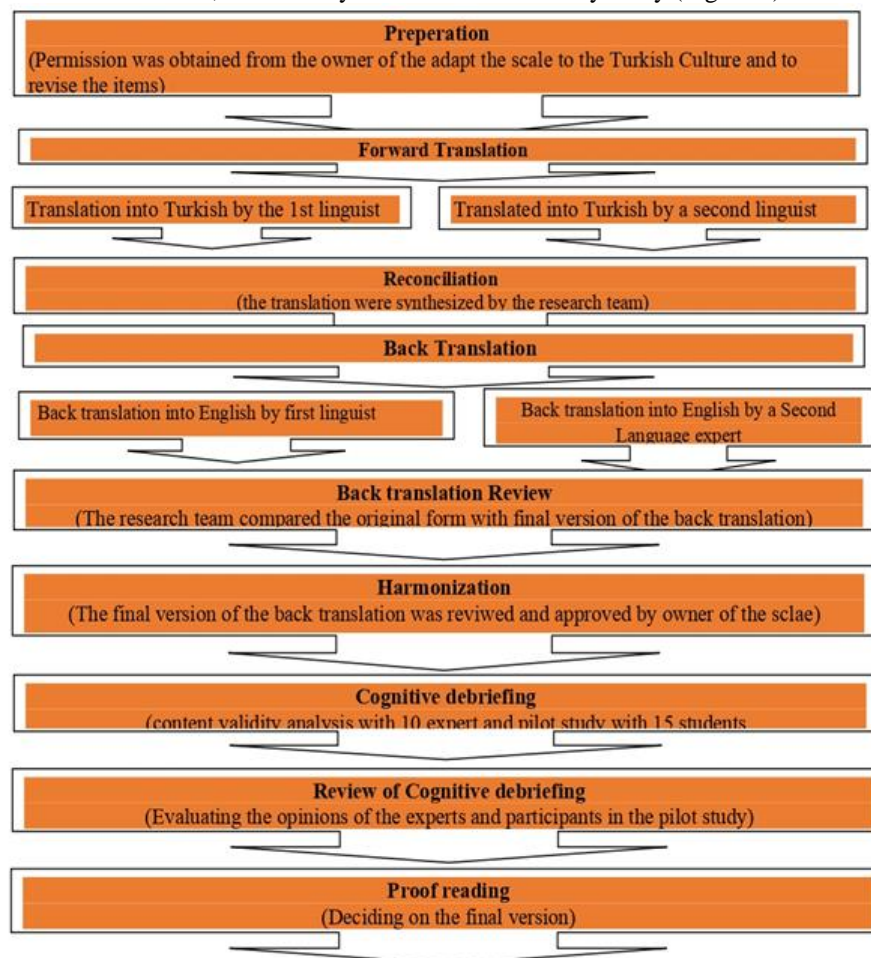
**Data Collection Tools:** The data was gathered using the MHL and a two-part personal information form. Age, gender, income status, department, and class level were sociodemographic factors covered in the first section. Disease information covered in the second section included the presence of diseases and educational status for mental health issues.

**MHLq in Young Adults Scale:** This scale was developed by Dias et al. in 2018 and contains 29 items using a 5-point Likert scale (1 = severely disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, and 5 = strongly agree). It is broken down into 4 dimensions: understanding of mental health issues (11 items; = 0.74), false beliefs/stereotypes (8 items; = 0.72), and first aid and help-seeking abilities (6 items). The total score range for the MHLq was 29 to 145. Overall, Cronbach's alpha was estimated to be 0.84. (4)

#### Process

**Adaptation of MHLq to Turkish and Content Validity:** In this study, the adaptation of MHLq-young adult into Turkish, its validity and

reliability process was structured by taking ISIPOR as a guide (24). Two Turkish language experts who work at the school of foreign languages at a public university's basic English department initially translated the scale's original items into Turkish. The items were then evaluated by nine academics who work in the young adult field using the Turkish version of the scale. The original scale was judged to be appropriate after the experts evaluated the scale components' suitability for translation to their original form and the intended audience. The scale's elements were reorganized after taking the experts' comments into account. One point was given for "strongly disagree," two for "disagree," three for "neither agree nor disagree," four for "agree," and five for "strongly agree" in the evaluation of each item's comprehensibility. To assure correctness and language scope, three professors translated the Turkish version into English in the next step. Additionally, a lecturer of Turkish language and literature examined the final scale items that were translated into Turkish before they were finalized for use. A preliminary application was submitted to a group of 15 students to test the scale's Turkish readability once all of its checks were finished. The data obtained from the preliminary application group were not included in the Turkish validity and reliability study (Figure 1).



**Figure 1.** According to ISIPOR, the process of adapting the MHLq-young adult scale to Turkish culture.

**Data Analysis:** The data was analyzed using the programs SPSS (Statistical Package for Social Sciences) 21 and AMOS 23. The descriptive statistics of the scale scores and participant characteristics were calculated using the variables number, percentage, mean, and standard deviation. To determine whether the factor analysis was appropriate for the sample size and concept validity, the KMO (Kaiser-Meyer-Olkin) and Bartlett chi-square tests were utilized. The Bartlett Test of Sphericity was determined to be  $2=3365.776$  ( $p<0.05$ ), while the KMO sample adequacy criterion was found to be 0.921. The scale's internal consistency and reliability were assessed using test retesting and Cronbach's alpha, and item-total score correlation analysis. Construct validity was used to assess the measure's validity. An expert reviewed the Confirmatory Factor Analysis (CFA), which was used to test the concept validity. The scale/sub-dimension scores obtained after CFA were examined using the Kolmogorov-Smirnov test to see if they had a normal distribution. Because the data were not normally distributed, the Mann-Whitney U test was used to compare the mean scale scores and descriptive features. The significance level was set at 0.05.

## RESULTS

**Participants' Distribution Based On Demographic Characteristics:** Participants in the study ranged in age from 18 to 25, with a mean age of  $20.51\pm1.98$ . Male participants made up 50.9% of the group, and 97.1% were by themselves. Of them, 23.7% were enrolled in technical sciences, 19.4% were nursing students and almost half of them (47.1%) were first-grade students. There was no chronic disease in 92.9% of them, no physical disorder in 96%, and no mental disorder in 94.9%. In general, the students scored their general health status between 1 and 10 and the standard deviation of the general health mean score was  $7.85\pm1.79$ . Of the students, 43.7% knew someone with mental disorders. Considering the degree of proximity, almost half of them (45.2%) knew someone with a mental disorder, 24.9% had a friend with a mental disorder and 19% had a relative with a mental disorder (Table 1).

**Validity Analysis Explanatory and Confirmatory Factor Analyses:** The validity of the scale was analyzed through construct validity.

**Content Validity:** Turkish-speaking experts in the relevant field translated the MHLQ. For content validity, nine experts' opinions were gathered. The scoring and text both received the appropriate modifications from the experts. The scale's content validity index was discovered to be 0.98.

**Construct Validity:** The suitability of the scale for the sample size and construct validity was tested using KMO and Bartlett Sphericity test. The KMO sample adequacy criterion was found to be 0.921 and the Bartlett Test of Sphericity was  $\chi^2=3365.776$  ( $p<0.05$ ).

**Table 1.** Descriptive Information of the Participants

	Min-Max	Mean $\pm$ SD
<b>Age</b>	18-28	20.51 $\pm$ 1.98
<b>General health status</b>	1-10	7.85 $\pm$ 1.79
<b>Attributes</b>		
<b>Gender</b>	<b>n</b>	<b>%</b>
Female	172	49.1
Male	178	50.9
<b>Marital status</b>		
Married	10	2.9
Single	340	97.1
<b>Department</b>		
Technical sciences	83	23.7
Faculty of health sciences-Nursing	68	19.4
Faculty of medicine	63	18.0
Faculty of science and literature	15	4.4
Education faculty	61	17.4
Faculty of theology	60	17.1
<b>Grade</b>		
1st grade	165	47.1
2nd grade	119	34.0
3rd grade	12	3.5
4th grade	54	15.4
<b>Chronic disease</b>		
Yes	25	7.1
No	325	92.9
<b>Physical disease</b>		
Yes	14	4.0
No	336	96.0
<b>Mental illness</b>		
Yes	18	5.1
No	332	94.9
<b>Knowing someone with mental disorder</b>		
Yes	153	43.7
No	129	36.9
Not sure	68	19.4
<b>Total</b>	350	100.0
<b>Degree of proximity of the individual with mental disorder</b>		
Self	24	10.9
A friend	55	24.9
A relative	42	19.0
A simple acquainted	100	45.2
<b>Total</b>	221	100.0

To test the four-dimensional validity of the MHLQ, CFA was conducted. Thus, the significance of the scale model was tested using CFA. Seven items (4th, 10th, 11th, 18th, 21st, 23<sup>rd</sup>, and 27th items) were excluded from the scale because they did not have adequate coherence. Repeated CFA revealed that the four-dimensional scale's fit indices were within acceptable bounds (Table 2). Dimension 1: Knowledge of mental health issues (10 items), Dimension 2: False Beliefs/Stereotypes (4 items), Dimension 3: Help-Seeking and First Aid Skills (4 things), and Dimension 4: Self-Help Strategies (4 items).

The MHLq had 22 components and four sub-dimensions at the conclusion of CFA. The "knowledge of mental health problems" sub-dimension had 10 items (2, 3, 8, 9, 13, 16, 17, 18, 19, and 21), four items (5 (reverse), ten (reverse), eleven, and twelve (reverse), four items for "help-seeking and first aid skills," four items for "self-help strategies," and four items for "erroneous beliefs/stereotypes" (1, 6, 15, and 20). The range of the scale's possible scores is 22 to 110. The range of possible results for each sub-dimension is as follows: awareness of mental health issues (10–50), false assumptions/stereotypes (4–20), help-seeking, first aid, and self-help strategies (4–20). (4–20). The CFA standards are given in Table 2.

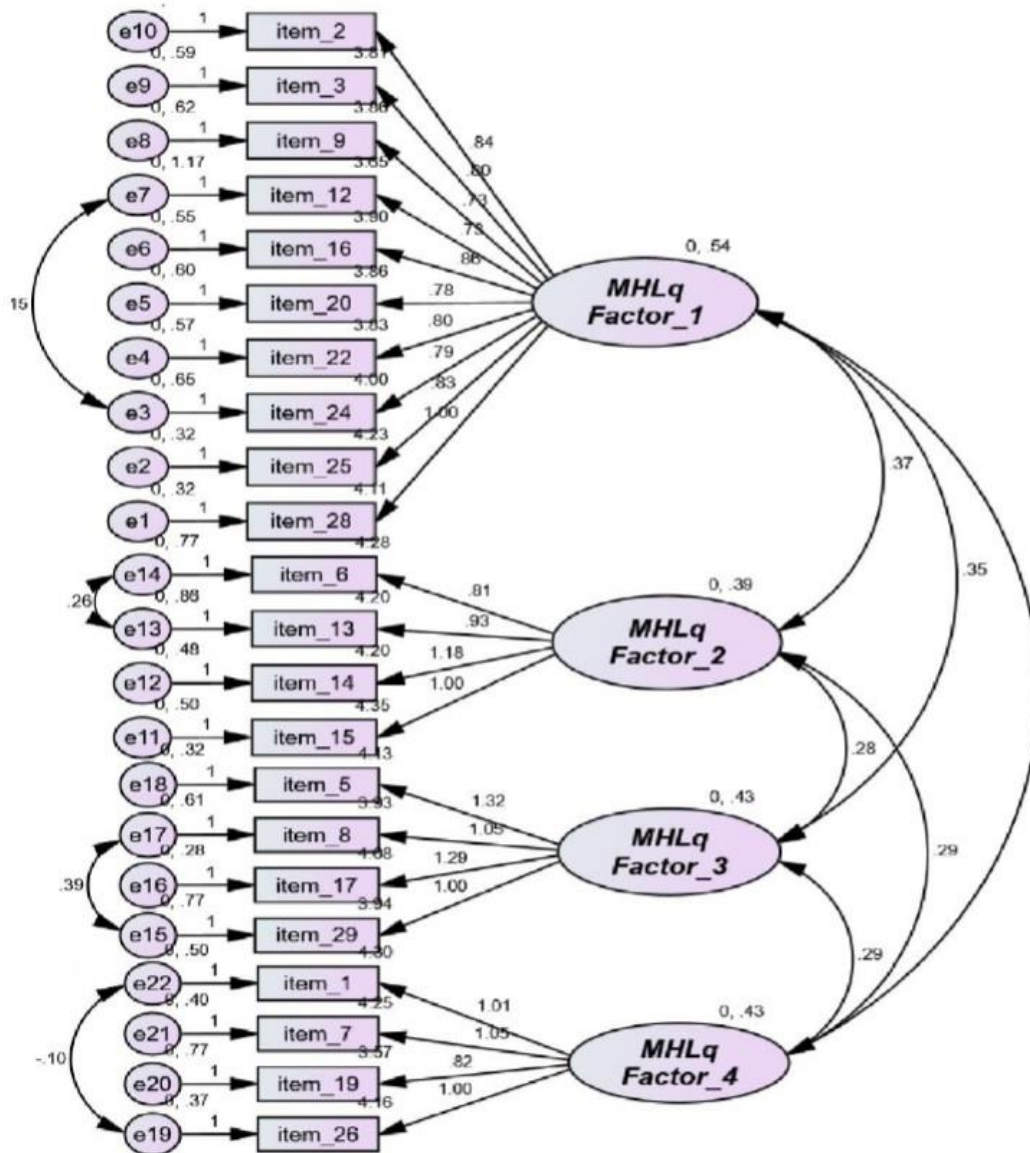
The results of the MHLq chi-square model test were ( $2=427.955$ ;  $p=0.000$ );  $2/df=2.15$ ). These figures demonstrate the significance of CFA. Tucker-Lewis index (TLI) = 0.92, normed fit index (NFI) = 0.88, adjusted goodness of fit index (AGFI) = 0.88, comparative goodness of fit index (CFI) =

0.93, root mean square error of approximation (RMSEA) = 0.05, and root mean square error (RMR) = 0.05 were found to be the fit indices. The model is congruent with the data, and the MHLq

**Table 2.** CFA Fit Indices of the MHLq

Fit Indices	Values	Acceptable Fit Values
$\chi^2/df$	2.15	$\leq 5$
RMSEA	0.05	$\leq 0.08$
RMR	0.05	$\leq 0.08$
CFI	0.93	$\geq 0.90$
GFI	0.91	$\geq 0.90$
AGFI	0.88	$\geq 0.90$
NFI	0.88	$\geq 0.90$
IFI	0.93	$\geq 0.90$
TLI	0.92	$\geq 0.90$

The coherence of the model with the PATH diagram was tested according to CFA and the four-dimensional structure was found to have adequate coherence (Figure 2).



**Figure 2.** Path diagram for the MHLq scale Turkish version.

**Distribution Properties and Reliability Analysis of the Scale:** Using test-retest reliability studies, Cronbach's alpha internal consistency coefficient, and total item correlation, the MHLq's reliability was investigated. The range of item correlations was 0.402 to 0.738 overall. For the

entire scale, 0.919 was the Cronbach's alpha internal consistency coefficient. The internal consistency coefficients of the sub-dimensions for Factors 1, 2, 3, and 4 are, respectively, 0.885, 0.744, 0.852, and 0.746 (Table 3).

**Table 3.** The correlation of MHLq scale/sub-dimensions and total scale scores and the Cronbach's alpha reliability coefficients

MHLq and its sub-dimensions	Mean±SD	Sub-dimension/Scale total correlation coefficients		Cronbach's alpha
		r	p	
<b>F1:</b> Knowledge of mental health problems	39.36±6.51	0.933	< .01	0.855
<b>F2:</b> Erroneous beliefs/stereotypes	17.03±3.06	0.730	< .01	0.744
<b>F3:</b> Help-seeking and first aid skills	16.08±3.46	0.771	< .01	0.852
<b>F4:</b> Self-help strategies	16.28±2.90	0.819	< .01	0.746
<b>MHL Scale (Total)</b>	88.75±13.37	-	-	0.919

**Test-retest:** 86 participants underwent test-retest procedures two weeks apart to ascertain whether the MHLq was time-invariant. The pre-and post-test measurements had a significant positive and sluggish linear association ( $r=0.384$ ,  $p=0.001$ ).

Furthermore, other dimensions of the scale except for the first sub-dimension and the total mean scores did not differ between the first and second applications ( $p>0.05$ ) (Table 4).

**Table 4.** Comparison of the test-retest mean scores of the MHLq and its sub-dimensions

MHLq and its sub-dimensions	Pre-test Mean±SD	Post-test Mean±SD	t	p
<b>F1:</b> Knowledge of mental health problems	42.29±3.68	41.23±5.09	2.088	0.040
<b>F2:</b> Erroneous beliefs/stereotypes	9.02±1.82	9.34±1.93	-1.234	0.221
<b>F3:</b> Help-seeking and first aid skills	17.18±2.59	16.88±2.64	1.083	0.282
<b>F4:</b> Self-help strategies	17.51±1.87	16.98±2.28	1.955	0.054
<b>MHLq Scale (Total)</b>	86.03±6.73	84.45±7.80	1.807	0.074

The Kolmogorov-Smirnov test indicated that the scale and its sub-dimensions did not have a normal distribution, so the Mann-Whitney U test was used in its place. Scores on the scale and its subdimensions were compared by gender. Scores on the scale/sub-dimension did not significantly

differ based on gender ( $p=0.05$ ). The scale/sub-dimension results showed that women fared better (Table 5). Chronic, physical, or mental diseases were not statistically significantly associated with the scale/sub-dimension scores ( $p>0.05$ ).

**Table 5.** Comparison of MHLq scale/sub-dimensions scores according to gender and departments

MHLq and its sub-dimensions	Number	Mean±SD	Median	Min	Max	Order	Test	p
<b>F1: Knowledge of mental health problems</b>								
Female	172	40.51±5.84	41	13	50	194.51	- 3.462	0.001
Male	178	38.24±6.93	39	10	50	157.13		
<b>F2:Erroneous beliefs/stereotype</b>								
Female	172	17.56±2.75	18	4	20	192.24	-3.090	0.002
Male	178	16.51±3.26	17	4	20	159.33		
<b>F3: Help-seeking and first aid skills</b>								
Female	172	16.77±3.00	17	4	20	195.79	-3.727	0.000
Male	178	15.41±3.75	16	4	20	155.90		
<b>F4: Self-help strategies</b>								
Female	172	16.89±2.57	17	4	20	197.05	-3.950	0.000
Male	178	15.68±3.09	16	4	20	154.68		
<b>MHLq Scale (Total)</b>								
Female	172	91.75±12.10	92	26	110	201.23	-4.678	0.000
Male	178	85.86±13.92	88	34	110	150.64		
<b>Total</b>	350							

## DISCUSSION

Although MHLq is an important topic in the literature, it is known that scale-based measurements of MHLq are insufficient and limited psychometrically and methodologically (6). In this study, MHLq was adapted to the Turkish community. It was discovered that MHLq is a viable and accurate measurement method to assess mental health literacy.

### Validity and Reliability Discussion Findings from MHLq

**Constructional Accuracy:** The construct validity of the MHLq was investigated using CFA, and the findings revealed that the scale contained four dimensions and 22 items. It was discovered that the sub-dimensions resembled the original scale (7). According to CFA findings, the scale's chi-square fit score was 2.15, which is within the acceptable range for the goodness of fit. The KMO (0.921) and Barlett test results ( $\chi^2=3365.776$  and  $p=0.000$ ) were used to assess whether the data. The data are regarded as perfect when the KMO value is at least 0.90, and as having a normal distribution when the Pearson Chi-square test is significant ( $p<0.05$ ) (25). Our study's findings are supported by other developmental studies for MHLq in the literature (3,5,26). The model obtained from the CFA analysis performed for the construct validity of the scale below 5, the 2/df value of the model acquired from the CFA analysis, and the RMSEA and RMR less than 0.08 show that the model is compatible with the CFA data. The CFI, GFI, IFI, and TLI values are over 0.90. The AGFI and NFI values are close to 0.90. (27). If the RMSEA and RMSR scores are less than five and the GFI, NFI, RFI, CFI, and IFI indices are 0.95 and higher, a match is said to be perfect (9,27,28). There were found to be the following fit indices: normed fit index (NFI) = 0.88, goodness of fit index (GFI) = 0.91, adjusted goodness of fit index (AGFI) = 0.88, comparative goodness of fit index (CFI) = 0.93, and root mean square error of approximation (RMSEA) = 0.05 and root mean square error (RMR)=0.05. This outcome is consistent with the original scale by Dias et al (4). Additionally, we can state that the scale is well-coherent with existing research on the MHLq scale (3,5,26).

**Discussion of Reliability Results:** The scale item score correlations in this study ranged from 0.402 to 0.738. This demonstrates that the correlation coefficients between the scale items and the overall and subscale scores are suitable and reliable. Item correlations as a whole must be higher than 0.30. (22,25).

Cronbach's alpha reliability coefficient was found to be 0.919 for the complete scale. The scale is regarded as very reliable when its Cronbach's alpha coefficient exceeds 0.80. (29). Cronbach's alpha for the initial scale was 0.84. (4). These results show that the scale's Cronbach's alpha

coefficient is higher than that of previous MHLq studies and comparable to other scales (3,7,8,30).

86 participants underwent test-retest procedures two weeks apart to ascertain whether the MHLq was time-invariant. The pre-and post-test measurements had a significant positive and sluggish linear association ( $r=0.384$ ,  $p<0.001$ ). It was also found that other dimensions of the scale except for the first sub-dimension and the total mean scores did not differ between the first and second applications ( $p>0.05$ ). This result shows that the scale is consistent and reliable (31).

The MHLq level of the participants (*Total scale score*:  $88.75\pm13.37$ ) was found to be similar to other studies (3,10). The study results are similar and can be attributed to their similarity due to including Turkish samples and the similar cultural characteristics of the individuals included in the sample. MHLq levels of the students were found to be lower in this study compared to the original scale and other studies (4,5,32). Mental health literacy (MHLq) includes knowing how to achieve and maintain good mental health, comprehending mental diseases and their treatments, reducing stigma associated with mental disorders, and developing help-seeking behavior for mental disorders when necessary (1). Additionally, it plays a significant role in the development of behaviors that involve requesting assistance for oneself and others when necessary, as well as positive attitudes toward people with mental health conditions (10). The greatest barriers regarding mental problems in young people are knowing the symptoms, preference for self-confidence, perceived stigma, and shame (33). Therefore, young adults have difficulty taking action regarding mental health problems and they mostly may ignore these problems (34). (People are more equipped to seek assistance and receive treatment for their issues when they are knowledgeable about mental health and mental health illnesses (35).

**Discussion of MHLq and Sociodemographic Attributes:** The MHLq score depends on gender in all sub-dimensions. Female students were found to have greater MHLq levels than male students. The original scale and other studies support our study results (4,32,36). The reasons that women have higher MHLq levels than men can be attributed to women's positive attitudes towards solving their mental problems, their help-seeking behaviors to solve their problems, and their use of counseling services more than the opposite sex (37). However, several investigations came to different conclusions. Males are more likely to commit suicide than women are, according to research by Eisenberg et al. Mackenzie et al. found that men were more likely to seek mental health treatment as they aged and as their education level grew (36).

The research scale was administered to university students. The results from this study and other studies conducted with similar sample groups show parallelism. This may have resulted from the participants being in their young adulthood period. In addition, we can say that the fear of being stigmatized is a major problem in seeking help, and mental problems are not recognized or are concealed by individuals. The fear of families about mental problems can prevent the appearance of mental problems, which may be regarded as a huge embarrassment.

## CONCLUSION

The high prevalence of mental disorders, the inadequacy of mental health professionals, the insufficient number of health professionals to provide low quality mental health services, and the stigma associated with mental disorders make it difficult to deal with mental health problems effectively. The concept of mental health literacy defined by Jorms et al. (1997) and the scales developed accordingly, (a) the ability to recognize and distinguish various mental illnesses and disorders; (b) knowledge of how and where to seek information about risk factors, intervention strategies and professional help; and (c) attitudes and beliefs that affect a person's ability to identify their mental illness and seek appropriate help. On the other hand, the World Health Organization (WHO) states that, in line with the health literacy framework, this structure should be developed to include skills and strategies, emphasizing its essential nature for promotion, prevention and care, and demonstrating the importance of its impact on improving outcomes at both the individual and population level. This scale, which was adapted into Turkish, was developed to measure the level of skills and helping strategies to prevent or reduce mental disorders, as well as knowledge about mental health issues, within the framework of this definition of the World Health Organization (WHO). It is of great importance that the concept of

mental health literacy be developed comprehensively as handled by WHO and addressed in the young population, which is one of the at-risk groups. With these features, it is a scale that cares about the individual's potential to improve mental health. It saves time for mental health professionals and allows them to recognize the patient faster and intervene more quickly.

This study provided psychometric characteristics of the MHLq. The results have shown that MHLq levels of Turkish young adults are at a moderate level. Eight experts determined that the scale's content validity index was 0.98. The MHLq's dependability coefficient according to Cronbach's alpha was 0.91. This result shows how extremely dependable the scale is. Based on the results, it is safe to use the MHLq to estimate the mental health literacy levels of the Turkish population. Additionally, lower MHLq levels among pupils indicate that these need to be raised. So, within the context of multidisciplinary collaboration, intervention programs should be developed, and these programs should be disseminated.

**Acknowledgment** We would like to express our gratitude to the study participants for contributing insightful information and their personal experiences.

**Author Contributions** All authors contributed to the study's conception and design. All authors commented on previous versions of the manuscript. All authors read and approved the final manuscript.

**Data Availability Statement** The data that support the findings of this study are available from the corresponding author upon request. And will be provided if the manuscript is accepted for publication.

**Funding.** The author(s) received no financial support for the research.

## Declarations

**Conflict of Interest:** The authors report no conflicts of interest..

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