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Adaptation of the Mental Wellness and Illness Scale to Turkish: A Validity and Reliability Study

Ruh Sağlığı ve Hastalıkları Ölçeğinin Türkçe'ye Uyarlanması: Geçerlik ve Güvenirlik Çalışması

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ABSTRACT

Aim: This study aims to evaluate the reliability and validity of the Turkish version of the Mental Well-Being and Illness Scale.

Material and Method: This methodological study was conducted with n=233 participants. Participants were asked demographic questions, the World Health Organization-5 Well-being Index and the Mental Well-being and Illness Scale translated into Turkish. The validity of the instrument was confirmed by content validity index, explanatory and confirmatory factor analyses, and concurrent validity. Internal consistency was assessed by Cronbach Alpha, halving, and concurrent validity calculations.

Results: The Turkish version of the Mental Wellbeing and Illness Scale has 20 items as in the original scale. Confirmatory factor analysis confirmed the three-dimensional structure of the scale. Model fit indices showed excellent model-data fit.

Conclusion: The findings confirmed that the Mental Well-being and Illness Scale is valid and reliable. It is recommended to use the Mental Well-being and Illness Scale as an appropriate tool for monitoring the mental status of the Turkish population.

Keywords: Mental well-being, Mental illness, Validity, reliability

ÖZET

Amaç: Bu çalışma Mental İyiilik ve Hastalık Ölçeğinin Türkçe versiyonunun, geçerlilik ve güvenirliliğinin değerlendirilmesini amaçlamaktadır.

Gereç ve Yöntem: Metodolojik desendeki bu çalışma n=233 katılımcı ile gerçekleştirilmiştir. Katılımcılara demografik sorular, Dünya Sağlık Örgütü-5 İyiilik Hali Endeksi ve Türkçe'ye çevrilmiş Mental İyiilik ve Hastalık Ölçeği sorulmuştur. Ölçme aracının geçerliliği; kapsam geçerlilik indeksi, açıklayıcı ve doğrulayıcı faktör analizleri, eşzamanlı geçerlik ile doğrulanmıştır. İç tutarlılık ise; Cronbach Alpha, yarıya bölme, eşzamanlı geçerlik hesaplamaları ile yapılmıştır.

Bulgular: Mental İyiilik ve Hastalık Ölçeğinin Türkçe versiyonu da orijinal ölçekteki gibi 20 maddededir. Doğrulayıcı faktör analizi ölçeğin üç boyutlu yapısını doğrulamıştır. Model uyum indeksleri mükemmel model veri uyumu göstermiştir.

Sonuç: Bulgular Mental İyiilik ve Hastalık Ölçeğinin geçerli ve güvenilir olduğu doğruladı. Türk toplumunun mental durumunun izlenmesinde, Mental İyiilik ve Hastalık Ölçeğinin uygun bir araç olarak kullanılması önerilmektedir.

Anahtar kelimeler: Mental iyiilik, Mental hastalık, Geçerlilik, güvenirlilik



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INTRODUCTION

Mental health (MH) is an important issue for health care providers. According to a 2022 World Health Organization (WHO) report, 970 million people worldwide experienced a mental disorder in 2019 (World Health Organization, 2022). The concept of MH is commonly defined by the pathogenic or medical model and the psychological model. The medical model suggests that there is an association between MH and Mental illness (MI), absence of health, and dysfunction. On the other hand, the psychological model defines MH as positive affect, well-being, and quality of life (Keyes, 2002; Keyes et al., 2010). The psychological model of MH refers to individual well-being, which includes emotional, psychological, and social well-being. This model includes components such as happiness, life satisfaction, mental balance, self-esteem, personal capacity, positive human relations with the environment and environmental mastery (Keyes, 2002). None of the aforementioned models alone can sufficiently explain mental health. This means that not experiencing psychological distress does not necessarily mean having good MH (Abdel-Khalek, 2022). Although MI and MH are considered to be opposites, current approaches suggest that both concepts are too complex to be subject to such generalizations (Westerhof & Keyes, 2010). The concepts of MI and MH are distinct but related concepts (Westerhof & Keyes, 2010). Therefore, it is recommended to evaluate both positive and negative symptoms of the MH of individuals (Zhao & Tay, 2023).

Machado and Bandeira (2015) conducted the reliability and validity of the Positive Mental Health (emotional, psychological and social well-being) Scale in the Portuguese population. (Machado & Bandeira, 2015). Velten, et al. (2022) completed the validity and reliability of the Positive Mental Health Scale in eight countries (i.e., France, Germany, Poland, Russia, Spain, Sweden, the United Kingdom, and the United States) (Velten et al., 2022). The validity and reliability of the Mental Health Continuum - Short Form, which measures the emotional, psychological and social well-being of individuals in the Canadian population (Heather et al., 2017). In the international literature, Web Screening Questionnaire to screen for mental disorders (Donker et al., 2009), Web-based Depression and Anxiety Test (Farvolden et al., 2003), Depression Anxiety Stress Scales (DASS)

(Zlomke, 2009), Internet obsessive-compulsive symptoms scale (Coles et al., 2007) includes. A systematic review assessing the validity of online psychometric instruments for common mental health disorders found that screening questionnaires have weak to adequate criterion validity for screening individual disorders (van Ballegooijen et al., 2016). On the other hand, MH assessment tools have limitations regarding the presentation of symptomatic experiences and create uncertainty, bias, and inconsistency in MH outcomes. As these tools focus on disorders and dysfunctions, they do not provide insight into MH and well-being (Newson & Thiagarajan, 2020). As a solution to this, Abdel-Khalek and Alansari (2022) developed the MWIS to measure both MH and well-being symptoms in Egyptian society.

MWIS consists of two sub-dimensions and 20 questions. Abdel-Khalek and Alansari (2022) based the mental well-being dimension on the Arabic Mental Health Scales (Abdel-Khalek, 2011, 2012a, 2012b). For the mental disability dimension, they took the World Health Organization's definition of health as a reference and prepared it in line with the literature (Abdel-Khalek, 2022; World Health Organization, 1948). Recent scales adapted or developed for the Turkish population focus only on MH or MI alone. For example, Toptaş Kılıç focused on sadness, spiritual impairment, and awareness while developing the Holistic Well-Being Scale (Toptaş Kılıç & Öz, 2019), and Fidan and Usta studied general well-being (Fidan & Usta, 2013) while Eser et al. validated a five-item spiritual well-being scale (Eser et al., 2019). Şahin et al. also developed the Brief Symptom Inventory (Şahin et al., 2002).

A review of the literature revealed that there is no valid and reliable scale that measures both mental well-being and mental illness together and at the same time in the Turkish population. Existing scales generally assess either only mental well-being or only mental illness. This limitation prevents a more holistic assessment of individuals' mental states with a single instrument. The aim of this study is to present a measurement tool that can assess individuals' mental states more comprehensively. The Mental Wellness and Illness Scale makes it possible to make a more balanced and comprehensive assessment by taking into account not only whether individuals have psychological disorders but also their mental well-being. This scale provides a broader perspective to better

understand the complex relationship between mental health and mental illness. This allows for a more effective assessment of community mental health. In addition, this scale will make it easier for public health and community mental health nurses and other health professionals to monitor and assess community mental health. The adaptation of the Mental Wellness and Illness Scale into Turkish will help health professionals assess the mental health of individuals with a more holistic and multifaceted approach, which will contribute to the development of more effective health interventions and policies in the future.

MATERIALS AND METHODS

Research Type

This study was designed as a methodological model.

Study Population and Sample

This study was conducted between November 1, 2023, and December 1, 2023, with 233 participants, a number more than ten times the number of scale items ($n=20$) (Esin, 2014). The study included individuals who volunteered to participate, used smartphones and social media, and were over the age of 18. Data were collected using the snowball sampling method with an online form. The online form was delivered to the participants via applications such as Facebook, Instagram and WhatsApp. The online form was prepared in such a way that the participants could answer all the questions and there was no missing data. The use of the online forum was closed after the sample size was reached. During the online data collection process, participants were informed about the study and a box was created for participation approval. Participants who approved to participate in the study completed the data collection form.

Data Collection Tools

Personal information form: This form included nine questions regarding the participant's age, gender, occupation, perception of income, and presence of MI (Abdel-Khalek, 2022; Eser et al., 2019; Newson & Thiagarajan, 2020).

Mental Wellness and Illness Scale (MWIS): The validity and reliability of this scale was confirmed by Abdel-Khalek. The original version of the scale consists of two subscales (mental well-being and mental illness) and 20 questions. The

Cronbach Alpha of the mental well-being subscale was 0.87 for women and 0.89 for men, the Cronbach Alpha of the mental illness subscale was 0.78 for women and 0.79 for men, and the total Cronbach Alpha of the scale was 0.87 for women and 0.89 for men (Abdel-Khalek, 2022). The scale is a four-point Likert-type instrument consisting of 20 items. In this study, unlike the original version of the scale, three sub-dimensions were formed. These subdimensions are mental well-being (items w1-w10), neuroticism (items il1, il2, il3, and il7), and psychotic illness (items il4, il5, il6, il8, il9, and il10). There is no single score on the scale. The mental well-being subdimension of the scale has a score range of 10-40. The mental well-being sub-dimension consists of items consisting of judgments aimed at defining the participants' mental well-being. Higher scores on the mental well-being subscale mean that the higher the scores obtained, the higher the level of mental well-being. Mental illness; neurotic and psychotic sub-dimensions are summed and a score is obtained. The total score that can be obtained from the neurotic and psychotic sub-dimensions is between 10-40. The neuroticism subdimension has a score range of 4-16, while the psychotic illness subdimension has a score range of 6-24. The neurotic illness sub-dimension questions the general mood of individuals (sleep, irritability, anxiety, etc.). The psychotic illness sub-dimension questions psychotic symptoms (delusions of reality, delusions of harm, etc.). The higher the neurotic and psychotic illness scores, the higher the level of mental illness. The Cronbach alpha value of this study was calculated as 0.743. Cronbach Alpha values for the total and sub-dimensions of the scale in this study are shown in Table 2.

Five-Item World Health Organization Well-Being Index (WHO-5): This index was developed by the MH Department of the WHO and consists of 5 items that assess well-being. The score range of the index is 0-25. A score of 0 indicates low quality of life, while a score of 25 indicates optimum quality of life. The original alpha value of the scale is 0.81 (Eser et al., 2019). This instrument was used for simultaneous measurement.

Translation English to Turkish and Cultural Adaptation

The MWIS scale was adapted to Turkish through translation, back translation, and a pilot implementation. The scale was translated from

English to Turkish by three different academic translation companies. The conformity of the English-Turkish and Turkish-English translations was confirmed by three faculty members who are experts in English language and literature. Expert opinions were obtained from six faculty members who completed their doctoral education in the field of psychiatry and public health nursing in terms of language, structure and field application. The Davis technique was used to evaluate this conformity (0.80-1.00) (Davis, 1992).

Ethical Considerations

Written permissions were obtained from the participants, the original author of the scale, and the ethics committee of a university (Date: 13.10.2023 and Approval Number: 2023/344) before conducting this study. The Declaration of Helsinki was followed at all stages of this study.

Statistical Analysis

The data obtained were analyzed using IBM SPSS and AMOS 22 software. The validity of the scale was tested using the content validity index (0.80-1.00). Construct validity was evaluated using exploratory factor analysis and confirmatory factor analysis. Prior to factor analysis, the adequacy and fit of the scale content and sample size were verified by the Kaiser-Meyer-Olkin (KMO) test and Bartlett's test of sphericity (Kaiser, 1974). The criterion validity of the scale was tested using the concurrent validity method. For this purpose, the participants were asked to fill out both the WHO-5 Well-Being Index, whose validity and reliability was already confirmed, and the Mental Wellness and Illness Scale. The internal consistency of the scale was analyzed using Cronbach's alpha, concurrent validity, and split-half reliability methods. Spearman-Brown and Guttman split-half coefficients were used in the split-half internal consistency analysis. Statistical significance was accepted at a level of $p < 0.05$. In addition, convergent and divergent validities were tested by calculating average variance extracted (AVE) and composite reliability (CR) values.

RESULTS

From among the total participants, 37.8% were female, 42.5% were married. While 36.1% of the participants were civil servants, 33.5% were students and 6.9% were retired. Furthermore, 47.2% of the participants had income equivalent to their expenses, 8.6% had a psychiatric illness

(anxiety, depression, etc.), 19.3% had a physical illness, and 22.3% used addictive substances (cigarettes, alcohol, etc.) (Table 1).

Table 1. Some Personal Data of the Participants

Demographic	n	%
Age mean \pm standard deviation (minimum-maximum)	35.76 \pm 14.05 (18-75yaş)	
Gender		
Female	145	62.2
Male	88	37.8
Marital status		
Married	131	56.2
Single	99	42.5
Other	3	1.3
Profession		
Officer	84	36.1
Worker	17	7.3
Self-employment	38	16.3
Student	78	33.5
Retired	16	6.8
Income status		
My income is less than my expenses	73	31.3
My income is equal to my expenses	110	47.2
My income is more than my expenses	50	21.5
Psychiatric illness status *		
Yes	20	8.6
No	213	91.4
Physical illness status		
Yes	45	19.3
No	188	80.7
Addictive substance use status**		
Yes	52	22.3
No	181	77.7

*anxiety, depression, etc. ** cigarettes, alcohol, etc.

Exploratory Factor Analysis (EFA) Results

The KMO value was found to be appropriate for factorability and the sample size was sufficient (KMO = 0.899). However, when the results of Bartlett's sphericity test were analyzed, it was concluded that the scale items were not sufficiently correlated ($\chi^2(190) = 2342.364$; Bartlett's sphericity test ($p = 0.000$) (Table 2).

After confirming the suitability of the data for factor analysis, EFA was conducted using principal component analysis and varimax rotation to examine the factor structure of the scale. There were no overlapping items (factor loading differences between two items of >10) or items with factor loadings below the cutoff value (>0.32). Therefore, it was confirmed that the

measurement tool had 20 items and three subdimensions, which were in accordance with the theoretical structure, and the factor design was found to be acceptable. According to EFA results, the scale explained 58.962% of the total variance. In addition, the subdimension of mental well-being (items w1- w10) explained 20.572% of the total variance, the subdimension of psychotic illness (items il4, il5, il6, il8, il9, and il10) explained 18.102% of the total variance, and the subdimension of neuroticism (items il1, il2, il3, and il7) explained 11.289% of the total variance (Table 2).

Table 2. Mental Wellness and Illness Scale exploratory factor analysis results

Factors	Factors		
	Mental well-being	Psychotic illness	Neuroticism
w4	0.836		
w2	0.835		
w1	0.800		
w6	0.799		
w8	0.799		
w5	0.732		
w9	0.705		
w3	0.664		
w10	0.658		
w7	0.609		
i8		0.832	
i10		0.788	
i4		0.781	
i9		0.768	
i6		0.693	
i5		0.609	
i7			0.762
i2			0.664
i1			0.638
i3			0.579
Eigenvalue	6.772	3.684	1.337
Explained variance ratio	29.751	18.102	11.289
KMO* = 0.899, $\chi^2(190) = 2342.364$; Bartlett's test (p) = 0.0001			
Total explained = 58.962			
Scale and subdimensions	Cronbach's Alpha		
F1: Mental well-being	0.918		
F2: Psychotic illness	0.837		
F3: Neuroticism	0.704		
Mental Wellness and Illness Scale	0.743		
* Kaiser-Meyer-Olkin			

Internal reliability of the instrument and its subdimensions: The overall alpha value for the MWIS was 0.743, while alpha values for the subdimensions were calculated to be within the range of 0.704-0.918 (Table 2).

Confirmatory Factor Analysis Results

Table 3 shows the item-total correlations for all items (between 0.385-0.621) (>0.30) (Alpar, 2010). The CFA results indicated that the CR values were significant (Figure 1) (Table 3).

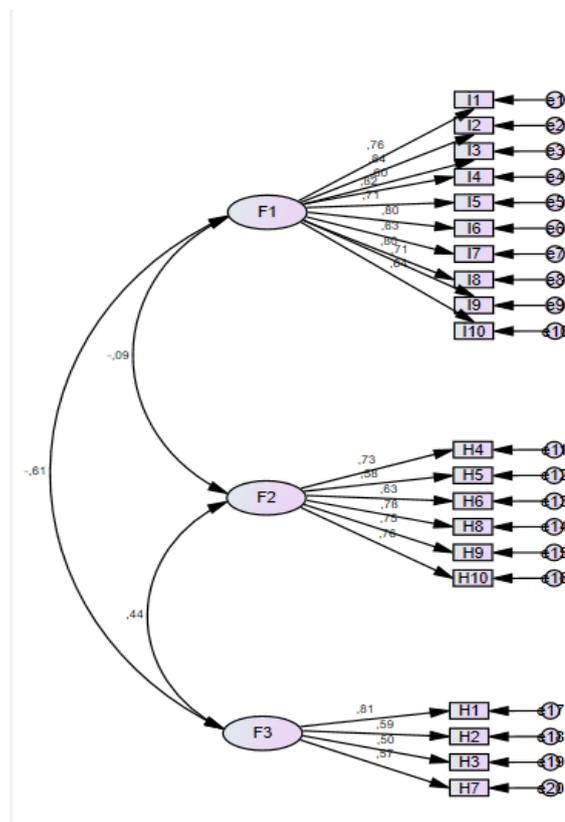


Figure 1. First-Level Multifactor Model Confirmatory Factor Analysis for the Mental Wellness and Illness Scale (standardized)

According to the results of CFA conducted in line with the EFA results, the scale had a structural equation modeling result of $p = 0.000$, which indicated that the scale fit the structure of 20 items and 3 subdimensions. In the model, covariance was created between errors of the same factors. Results of the first-level multifactor analysis indicated that the scale had acceptable fit according to its RMSEA value of 0.073, while it had perfect fit according to its χ^2 (Cmin/df) value of 2.249. As a result, it was concluded that the scale achieved construct validity (Table 4).

Table 3. Mental Wellness and Illness Scale Item Analysis Results

Items	İtem-total score correlation	Standardized factor loadings	SE ⁺	CR ⁺⁺	p
F1: Mental well-being					
w1	I am satisfied with myself.	0.512	0.762		
w2	I am happy.	0.600	0.842	0.073	13.649 p < 0.001**
w3	I have high self-confidence.	0.445	0.601	0.086	9.271 p < 0.001**
w4	Life feels good to me.	0.611	0.819	0.087	13.201 p < 0.001**
w5	I feel safe.	0.509	0.708	0.091	11.142 p < 0.001**
w6	I have high morale.	0.621	0.801	0.074	12.865 p < 0.001**
w7	I feel rested.	0.480	0.627	0.089	9.721 p < 0.001**
w8	I love life.	0.552	0.801	0.089	12.865 p < 0.001**
w9	My life has meaning.	0.437	0.711	0.094	11.197 p < 0.001**
w10	I'm optimistic.	0.425	0.639	0.091	9.931 p < 0.001**
F2: Neuroticism					
il1	I feel depressed.	0.526	0.809		
il2	My sleep is irregular and of poor quality.	0.385	0.590	0.102	8.007 p < 0.001**
il3	I'm an obsessive person.	0.462	0.501	0.108	6.845 p < 0.001**
il7	I'm nervous and angry.	0.435	0.567	0.089	7.715 p < 0.001**
F3: Psychotic illness					
il4	I see ghosts in the dark.	0.550	0.728		
il5	I have enemies who want to harm me.	0.519	0.583	0.124	8.295 p < 0.001**
il6	I feel that some things are not real.	0.515	0.628	0.154	8.932 p < 0.001**
il8	I hear sounds that others don't hear.	0.503	0.779	0.097	11.007 p < 0.001**
il9	I have suicidal thoughts.	0.589	0.746	0.099	10.564 p < 0.001**
il10	There is a conspiracy against me.	0.561	0.760	0.093	10.752 p < 0.001**

n = 233; **p < 0.05. + Approximate standard error, ++ Consistency Ratio

Table 4. Confirmatory Factor Analysis Results

Index	Post-modification	Excellent Fit Criterion	Acceptable Fit Criterion
χ^2/SD^*	2.249	$0 \leq \chi^2/df \leq 3$	$3 \leq \chi^2/df \leq 5$
RMSEA**	0.073	$0.00 \leq RMSEA \leq 0.05$	$0.05 \leq RMSEA \leq 0.08$
SRMR***	0.031	$0.00 \leq SRMR \leq 0.05$	$0.05 \leq SRMR \leq 0.08$
GFI****	0.862	$0.90 \leq GFI$	$0.85 \leq GFI$
CFI ⁺	0.907	$0.95 \leq CFI$	$0.85 \leq CFI$
TLI ⁺⁺	0.883	$0.90 \leq TLI$	$0.80 \leq TLI$

* Chi square/ degrees of freedom, **Root mean square error of approximation, *** Root mean square residual,**** Goodness of fit index, +Comparative fit index,++ Tucker-Lewis index (non-normed fit index)

Table 5. Data Regarding Concurrent Validity and Split-Half Methods

	WHO-5 Well-Being Index*
F1: Mental well-being	0.709**
F2: Neuroticism	-0.431**
F3: Psychotic illness	-0.231**
Mental Wellness and Illness Scale	0.556**
*Spearman's correlation, **p < 0.01	
Cronbach's alpha	
Component 1 = w1, w3, w5, w7, w9, il1, il3, il5, il7, i9	0.842
Component 2 = w4, w6, w8, w10, il2, il4, il6, il8, il10, w2	0.872

The WHO-5 Well-Being Index was used to test concurrent validity. The correlation between WHO-5 Well-Being Index scores and MWIS scores ranged from r = 0.23 to r = 0.70 (p < 0.01). The items of the scale were split into two halves, each consisting of

either odd-numbered or even-numbered items. The split-half correlation coefficient of the scale was calculated to be above 0.70 (split-half correlation: 0.700, Guttman split-half coefficient: 0.819, Spearman-Brown coefficient: 0.821) (Table 5)

DISCUSSION

This study aimed to evaluate the reliability and validity of the Turkish adaptation of the Mental Wellness and Illness Scale. The MWIS has been previously studied in the Egyptian population, but not the Turkish population. In this respect, the current study contributes to the scientific literature by filling that gap. This study validated the factor structure of the MWIS for the Turkish population and found that it can be used to measure both the mental wellness and illness of adults living in Turkey.

The KMO value of this study was calculated as 0.899 (Table 2). KMO value was calculated in the original version of the scale. However, the scale development process was carried out with $n=1418$ participants (Abdel-Khalek, 2022). The KMO value of the "Five-Item World Health Organization Well-Being Index", which was used as a parallel scale in this study, was calculated as 0.83 (Eser et al., 2019). Since this value is above 0.50, it means that the sample size is sufficient (Alpar, 2010). In addition, Bartlett's sphericity test value was calculated as significant ($p<0.001$). Bartlett's sphericity test value was not calculated in the original version of the scale. However, the Five-Item World Health Organization Well-Being Index was calculated to be significant. Accordingly, it was concluded that the items have multivariate normal distribution (Özdamar, 2017). In the light of these results, it is seen that our sample is sufficient and our data are normally distributed.

Yaşlıoğlu (2017) recommended performing EFA in the first stage of scale development and then CFA to evaluate the determined factor structure (Yaşlıoğlu, 2017). As a result of EFA, the explained variance ratio of the scale was calculated as 59% (Table 2). The variance explained as a result of EFA should be above 50%. (Linacre, 2006; Yaşlıoğlu, 2017). EFA was conducted in the first stage of adapting the MWIS to Turkish and CFA was conducted in the second stage. As a result of EFA analysis, there is no overlapping (factor loading differences between two items of >10) or any value below the cut-off point (>0.32). (Tabachnick & Fidell, 2015). As a result, it was found that the MWIS consists of three subdimensions (F1: Mental well-being, F2: Neuroticism, F3: Psychotic illness) (Table 2). While the original measurement tool consisted of two subdimensions, the Turkish adaptation consists of three subdimensions (Abdel-Khalek,

2022). The study of the original measurement tool was conducted in Alexandria, Egypt, with 1418 participants. All participants included in the original study were over 18 years of age, similar to the current study (Abdel-Khalek, 2022).

In this study, the total scale and subscale alpha values were calculated between 0.704-0.918 (Table 2). In this respect, the scale is compatible with the original scale. In the original version of the scale, gender factor was taken into consideration when calculating alpha values (Abdel-Khalek, 2022). The alpha value of the Five-Item World Health Organization Well-Being Index was calculated as 0.81. The alpha value of the Holistic Well-Being Scale in individuals with cancer disease was calculated as 0.73 (Toptaş Kılıç & Öz, 2019). These results were interpreted as indicating that this measurement tool is highly reliable (Tavşancıl, 2005).

CFA is an extension of EFA and measures the underlying structure of a measurement instrument. CFA is used to calculate the adequacy of the correlation between factors and whether the factors sufficiently explain the model (Erkorkmaz et al., 2013). The results of CFA conducted while adapting the MWIS to Turkish showed that the 20 items and 3 subdimensions of the scale were correlated with the structure of the scale (Özdamar, 2017). It was also found that the scale had acceptable fit according to its RMSEA value of 0.073, while it had perfect fit according its χ^2 (Cmin/df) value of 2.249 (Table 4) (Simon et al., 2010; Wong & Carlbäck, 2018). The alpha coefficients of the measurement tool and its subdimensions were calculated to be ≥ 0.70 . These results suggest that the measurement tool and its subdimensions are highly reliable (Kline, 2000; Tavşancıl, 2005) (Table 2). The adapted MWIS has reliability similar to that of the original scale (Abdel-Khalek, 2022).

According to principal components analysis and varimax rotation analysis results, there were no items in the measurement tool that did not fit the theoretical dimensions or that overlapped with each other. The main purpose of factor rotation is to obtain namable and interpretable sub-factors. Axis rotation results in a balanced distribution of factor loadings. Some factor loadings increase while others decrease. In this way, the related items among the scale items come together. One of the most frequently used rotation methods is varimax. In varimax rotation, rotation is

performed to maximize factor variances with fewer variables (Jackson, 2005). The overlap value was accepted to be 0.10 (Seçer, 2018). The discrimination values of the items of the MWİS were also calculated. The item-total correlation and CR values of the adapted scale were calculated to be above 0.30. This suggests that the items were correlated with each other and fit the construct (Table 3; Figure 1) (Seçer, 2018).

Correlation analysis was performed between the MWİS and the WHO-5 Well-Being Index (Eser et al., 2019). A strong, positive, and significant relationship was observed between the mental well-being subscale of the MWİS and the WHO-5 Well-Being Index (Table 5). During the development of the original version of the scale, the WHO-5 Well-Being Index and the Mental Illness Scale were used as parallel forms (Abdel-Khalek, 2022). Parallel forms are constructed from measurement instruments with different antecedents to represent the same behavioral pattern. The equivalence of two forms is based on the similarity of their scope and instructions. The equivalent forms should be administered at the same time. The collinearity between the equivalent forms indicates the reliability of the developed scale (Öncü, 1994).

In addition, the split-half correlation coefficient of the items was calculated as 0.70 (Table 5). The split-half correlation value was not calculated in the original version of the scale (Abdel-Khalek, 2022). The split-half correlation value of the holistic well-being scale was 0.561 and above. (Toptaş Kılıç & Öz, 2019). The halving method is a method used when the test can be divided into two halves and a score can be obtained. The method is based on the fact that if the measurement instrument is reliable, the scores obtained from both halves of the sample should be similar. The method of splitting into two halves can be done as single items-double items or in random order (Baykul, 2015). The correlation between the two halves obtained shows whether it is a reliable measurement tool. A correlation coefficient above 0.70, i.e. close to 1, indicates that the instrument is reliable (Field, 2009). Thus, it was determined that the measurement tool was reliable (Baykul, 2015; Field, 2009).

Limitations

The sampling method may pose a limitation as the snowball sampling method was used. Only individuals who had social media accounts, used smart phones, and used e-mail could be included

in the study. This method of sample selection may have affected the generalizability of the results. In addition, although the concurrent validity method was used to assess the reliability of the scale, the lack of a test-retest method is considered a limitation of the study.

CONCLUSIONS

The MWIS was found to be a valid and reliable tool that can be used for the Turkish population. This measurement tool can be used to measure the mental well-being and illness of Turkish individuals over the age of 18. This measurement tool is a valid and reliable tool that offers and facilitates a holistic mental health approach to public health and community mental health nurses in community mental health screenings, as it is short and easy to apply. With this measurement tool, public health and community mental health nurses have the opportunity to evaluate individuals in terms of mental well-being, neurotic and psychotic illness at the same time. In the mental well-being dimension, individuals' perceptions of mental well-being about themselves are determined, while the neurotic illness sub-dimension examines the general emotional state of individuals (sleep, irritability, anxiety, etc.) and the psychotic illness sub-dimension questions psychotic symptoms (delusions of reality, being harmed, etc.). In this respect, the measurement tool provides an opportunity for a holistic and multidimensional assessment of the patient. The use of this measurement tool in determining the mental well-being and illness levels of individuals, groups and populations is recommended for all health professionals as well as public health and community mental health nurses.

Ethics Committee Approval

Ethics committee approval was received for this study from the Bolu Abant İzzet Baysal University Ethics Committee (Date: 13.10.2023, Approval Number: 2023/344).

Author Contributions

Idea/Concept: H.H.T., L.N.U., M.T.K.; Design: H.H.T., L.N.U.; Supervision/Consulting: H.H.T.; Analysis and/or Interpretation: H.H.T.; Literature Search: H.H.T., L.N.U.; Writing the Article: H.H.T., L.N.U., M.T.K.; Critical Review: H.H.T., L.N.U., M.T.K.

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Conflict of Interest

The authors have no conflict of interest to declare.

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