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Research Article / Araştırma

Validation and reliability study of stigma scale in seeking psychiatric help*

Psikiyatrik yardım aramada damgalanma ölçeğinin geçerlik ve güvenirliği çalışması

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ABSTRACT

Aim: People are experiencing stigma while seeking for mental health in the community. Study was conducted to test the Turkish validity and reliability of the Military Stigma Scale (MSS) to determine employees' perceptions of stigma and barrier access to mental health services. **Materials and Methods**: A questionnaire containing introductory features and the MSS scale developed by Skopp et al. (2012) were adapted to public employees and used. Exploratory and confirmatory factor analyzes were performed for the validity of the scale through SPSS and AMOS programs. **Results**:The average age was 38.38±7.85. 33.5% were men, 55.6% of them were university graduates. The Cronbach's Alfa coefficient was found as .877. The ratio of chi-square statistics to degrees of freedom(X^2/df) .226; root mean square approximation error(RMSEA).052. **Conclusions**:Newly called "Stigma Scale in Seeking Psychiatric Help" is a valid and reliable measurement tool with strong internal consistency reliability. It could be used to evaluate public employees' perceptions of stigma in accessing mental health services.

ÖZ

Amaç: İnsanlar toplumda ruh sağlığı hizmeti ararken damgalanma yaşıyorlar. Çalışanların damgalanma algılarını ve ruh sağlığı hizmetlerine erişimdeki engelleri belirlemek amacıyla Askeri Damgalanma Ölçeği'nin (MSS) Türkçe geçerlilik ve güvenilirliğini test etmek için mevcut çalışma yapılmıştır. **Gereç-Yöntem**: Katılımcıların tanıtıcı özellikleri ve Skopp ve ark. (2012) tarafından geliştirilen Askeri Damgalanma Ölçeği kamu çalışanlarına uyarlanarak kullanılmıştır. Ölçeğin geçerliği için SPSS ve AMOS programları aracılığıyla açımlayıcı ve doğrulayıcı faktör analizleri yapılmıştır. **Bulgular**: Çalışmada yaş ortalaması 38,38±7,85 idi. Katılımcıların %33,5'i erkek, %55,6'sı üniversite mezunuydu. Cronbach's Alfa katsayısı .877 olarak bulundu. Ki-kare istatistiklerinin serbestlik derecelerine oranı(X^2/df) .226; kök ortalama kare yaklaşım hatası(RMSEA).052 idi. **Sonuç**: Yeni adı "Psikiyatrik Yardım Aramada Damgalanma Ölçeği", Türkiye'de kullanılabilecek geçerli ve güvenilir, iç tutarlılık güvenilirliği güçlü bir ölçme aracıdır. Kamu çalışanlarının ruh sağlığı hizmetlerine erişimde damgalanma algılarını değerlendirmek için kullanılabilir.

INTRODUCTION

Stigma is a potential deterrent to accessing mental health (1).The thought of being stigmatized by the society both causes individuals to stigmatize themselves and prevents them from seeking health behaviors (2,3). Stigma associated with mental health problems. The increasing rates of mental health problems reported by psychiatric services highlights the importance of access to mental health (3). The existence of barriers in accessing mental health services and the stigmatization associated with may hinder individuals' seeking mental health. It is important in business life as well as in daily life. Employees tend to have the perception which seeking psychiatric help will harm their careers and they may be subjected to different interventions by their supervisors. Employees not getting treated or using rehabilitation facilities despite having psychiatric diseases will threaten the mental and occupational health of the society. Although there are

studies indicating managers support the employees in accessing mental health services, the seeking for mental health is interrupted by concerns about labeling and career (4,5). On the contrary, there are studies conducted that there is less self-stigma in individuals who have previously consulted a therapist and have had a good experience (6). Stigmatization in psychiatric diseases prevents help-seeking behavior (3,7-9). Also stigmatization and discrimination negatively affect society's views on employment, income, resource allocation, and healthcare costs (10). Preventing the perception of stigmatization is important not only in terms of protecting the mental health of the employees but also in terms of ensuring their job orientation. So, it was necessary to have a scale which evaluates the subordinate and superior relations and the perceptions of stigmatization for employees on seeking mental health. This study was conducted to test the Validity and Reliability of the Military Stigma Scale (MSS) among Institution Civilian Employees in national also contribute to evaluate the stigmatization of the community and self-stigma when seeking psychiatric help for employees.

MATERIAL AND METHODS

Study was carried out methodologically to test the validity and reliability of the Military Stigma Scale (MSS) among Institution Civilian Employees developed by Skopp et al. (2012) (11). Studies in the literature stated that the sample size should be 5 or 10 times the number of items for scale validity (12-14). In this context, the number of items of the tested scale was taken into account to determine the number of participants to be included in the study in order to determine internal consistency and criterion-based validity (26 items in total). 275 volunteer participants from a factory in an eastern city of Turkey were included in the study. The data were collected in June 2021.

Data Collection Tools

The data of the study were collected using the Military Stigma Scale (MSS) and a questionnaire containing the introductory features of the participants.

Introductory Features Form: It contains questions about age, gender, education.

Military Stigma Scale (MSS): It was developed by Skopp et al. in 2012 in the USA. It consists of two factors that measure the constructs of public and self-stigma. The 16 public stigma items focus on the participants' concerns about their public image, confidentiality concerns and ramifications on their career if they were to seek mental health services. The self-stigma items were adapted from the previously developed Self-Stigma of Seeking

Help (SSOSH) scale, which focuses on concerns about the loss of self-esteem associated with seeking mental health treatment (Vogel, 2006) (15). It is a 4-point Likert-type scale and the items were scored from 1 to 4, where a higher score indicates greater perceptions of stigma for seeking mental health services (1= definitely disagree, 2= somewhat disagree, 3= somewhat agree, 4= definitely agree). Scoring is reversed for several items just as 4,10,26,28 (4 = definitely disagree, 1 = definitely agree).

Data Collection and Evaluation

275 working individuals participated in the study voluntarily. It was planned to reach all employees without making a sample selection. Study participation rate was 70%. The data were collected via social media with their informed consent. Data were evaluated using SPSS and AMOS programs. Exploratory and confirmatory factor analysis were used for the validity of the scale. Also, the SPSS Program was used to determine the underlying factor structure based on the data we collected. Cronbach's Alpha coefficient was calculated to test the reliability of the scale. The degrees of freedom (X^2 / df), the root mean square approximation error (RMSEA), the Tucker-Lewis index (TLI), and the comparative fit index (CFI), which are the fit index analyzes of the Scale, were calculated in the AMOS program.

Structure and Scope Validity of the Scale

First of all, two authors translated the scale from English to Turkish, and later, recommendations were taken from two freelance language experts whose second language was English. Four panelists evaluated the scale according to the Davis technique. The scale items were rearranged in line with the recommendations from the panel of nurses who evaluated the scale. The term "commander" was modified to "manager", the term "military record" to "professional record", the phrase "commanding command to hierarchy chain", and the name of the scale to "Stigma Scale in Seeking Psychiatric Help" and the term "military" to the "public sector employees" in the current study.

Factor Analysis of The Scale

The exploratory factor analysis was conducted for Turkish validity of the MSS. Before the factor analysis, the suitability of the data set was examined according to the KMO coefficient being close to 1 (0.912) and the Bartlett's Sphericity test being <0.05. The factor structure obtained by exploratory factor analysis was tested by confirmatory factor analysis in the study. Lowest score was available 26, highest was 104 in the

scale. Higher scores indicated greater perceptions of stigma for seeking mental health services.

Ethical Considerations

Ethical approval (decision no: 2021-06/52) and was obtained from Ataturk University Clinical Research Ethics Committee and written permission form the institution was obtained. The research was carried out according to the Helsinki Declaration Principles. The participants who volunteered to participate in the study were informed about the subject and purpose of the study and their informed consent was obtained.

RESULTS

In the study, 66.5% were women and 33.5% were men. 5.8% were high school graduates, 55.6% were university graduates, and 38.5% were post graduate (Table-1). The exploratory factor analysis was conducted to examine the Turkish validity of the MSS. Before the factor analysis, the suitability of the data set was examined according to the KMO coefficient being close to 1 (0.862) and the Bartlett's Sphericity test being <0.05, and data set was suitable for factor analysis.

Since two factors had an eigenvalue greater than one, it can be said that 26 items are weighted under the two factors. The first factor alone explains 33.9% of the total variance, while the second factor alone explains 12.8% of the total variance. Together, the two factors explain 45.9% of the total variance. Item analyses were presented in Table-2. The factor structure obtained by exploratory factor analysis was tested by confirmatory factor analysis. The ratio of the chi-square statistics obtained as a result of the analysis to the degrees of freedom (X^2 / df) was 2.226, the root mean square approximation error (RMSEA) was 0.052, the Tucker-Lewis index (TLI) value was 0.918, and the comparative fit index (CFI) value was 0.91. A model's comparative fit index (CFI) and Tucker-Lewis index (TLI) values of 0.90 or above means that it is a good fit (Table-3). Cronbach's Alpha coefficient for the whole scale was found as .877 , .933 for public stigma, and .689 for self-stigma in our study. Final version of the scale was presented below (Table-4).

DISCUSSION

This study aimed to adapt the MSS scale developed by Skopp et al. to all public institution employees in Turkey. It was found that the scale consisted of two factors as in the original and the factor loads were sufficiently weighted. These results were similar to those of Skopp et al., which showed that public stigma and self-stigma were both present in society. These findings indicate that the place where the research was conducted in the USA and the research society in Turkey are similar. Similar to this study, Vogel et al. revealed that self-stigma is perceived in their studies that cover six countries, including Turkey. According to these results, the perceived stigma in mental health disorders can be considered to be a universal reality. Although Skopp et al. performed the MSS scale in soldiers, we adapted the scale in public employees. The results showed that the stigma scale in mental health disorders is valid not only for soldiers but also for public employees. This article contains the statement "I would feel worse about myself if I could not solve my own problems". It is thought that this result is specific to Turkish society. In our study, the Mental Health Stigma scale showed strong internal consistency and reliability. Cronbach's Alpha coefficient was found to be .689 for self-stigma and .933 for public stigma.

With these findings, it can be said that the reliability of public stigma is better than self-stigma. The reason for the lower Cronbach's Alpha value of self-stigma may be that the items translated backwards are the majority. Skopp et al. obtained a higher Cronbach's Alpha value then our study for self-stigma. This result can be interpreted as "Self-stigmatization is perceived less in Turkish society". Finally, the fit index analyses had acceptable fit values. This result proves that the scale has validity even though the factor loadings are low.

Strength and limitation

The restrictions during pandemic for accessing the working individuals could be the limitation of the study.

Relevance to nursing practice, implication for future research and practice

By testing the validity and reliability of the scale in Turkish, the perception of stigma faced by public employees in receiving psychological help will be determined and nursing interventions just as planning sessions for employees with psychiatric diagnosis and therapeutic interview techniques can be made accordingly. Thus, it can be ensured that employees can express themselves comfortably in the pursuit of mental health and come to the conclusion that they are not viewed with prejudice. It is encouraged that future studies should include different county based validity and reliabilities for all working individuals in all over the world to access mental health.

CONCLUSION

The Turkish version of the MSS—newly called "Stigma Scale in Seeking Psychiatric Help"— and adapted to

Table 1. Distribution of introductory features (n=275)

Age		Mean±SD	
		38,38±7,85	
		n	**%**
Gender	Female	183	66,5
	Male	92	33,5
Education	High School	16	5.8
	University	153	55.6
	Post Graduate	106	38.5
	Total	**275**	**100,0**

Table 2. The results of item analyses (n=275)

	Factor Loadings Results	Eigenvalue	Variance Description Ratio (%)
Factor 1			
Item 9	.636		
Item 25	.821		
Item 3	.635		
Item 20	.776		
Item 24	.663		
Item 18	.833		
Item 11	.719		
Item 5	.781		
Item 15	.804	9.32	33.9
Item 21	.598		
Item 7	.788		
Item 12	.840		
Item 6	.747		
Item 22	.672		
Item 13	.697		
Item 4(Reverse)	.164		
Factor 2			
Item 19	.660		
Item 16	.732		
Item 10 (Reverse)	.321		
Item 23	.725		
Item 17	.688	2.61	12.8
Item 26 (Reverse)	.447		
Item 2	.756		
Item 8	.376		
Item 28 (Reverse)	.174		
Item 14	.050		

Table 3. The results of fit indexes

Acceptable Fit Indexes	Calculated Fit Indexes
$\chi^2/sd < 5$	2.226
GFI >0.90	0.922
AGFI >0.90	0.909
CFI >0.90	0.910
TLI >0.90	0.918
RMSEA <0.08	0.052
RMR <0.08	0.041

Table 4. Stigma scale in seeking psychiatric help

		ITEMS	Definitely Disagree	Somewhat Disagree	Somewhat Agree	Definitely Agree
9		My chances of promotion would be harmed if I sought mental health services.	1	2	3	4
25		My peers would think I was unreliable if they knew I was receiving mental health treatment.	1	2	3	4
3		I would be given less responsibility, if supervisor knew I was seeing a mental health provider.	1	2	3	4
20		I'd lose the respect of my subordinates if they found out I was receiving mental help.	1	2	3	4
24		I am afraid that my supervisor would find out what I told a mental health provider.	1	2	3	4
18		My peers would think less of me if they knew I was getting help from a mental health provider.	1	2	3	4
11	Public Stigma	I am open to seeking services, but I worry about how it could hurt my career.	1	2	3	4
5		People would judge me poorly if they knew that I received mental health services.	1	2	3	4
15		It would make my problems worse if my peers knew I was seeing a mental health provider	1	2	3	4
21		There are things I am afraid to talk about because of what others will think.	1	2	3	4
7		People I respect would think less of me if they knew I had mental health problems	1	2	3	4
12		My reputation in my community would be harmed if people knew that I had seen a mental health provider.	1	2	3	4
6		I would worry about my personal problems being part of my records	1	2	3	4
22		A person seeking mental health treatment is seen as weak	1	2	3	4
13		I would be afraid that my peers would find out what I tell my mental health provider	1	2	3	4
4		If my chain of command discovered I was seeing a mental health provider, I would NOT lose their respect	1	2	3	4
19		If I went to a therapist, I would be less satisfied with myself	1	2	3	4
16		I would feel inadequate if I went to a therapist for psychological help	1	2	3	4
10		I would feel okay about myself if I made the choice to seek professional help	1	2	3	4
23		It would make me feel inferior to ask a therapist for help.	1	2	3	4
17	Self Stigma	Seeking psychological help would make me feel less intelligent	1	2	3	4
26		My self-confidence would NOT be threatened if I sought professional help	1	2	3	4
8		My view of myself would change if I made the choice to see a therapist	1	2	3	4
28		My self-esteem would increase if I talked to a therapist.	1	2	3	4
2		My self-confidence would be harmed if I got help from a mental health provider.	1	2	3	4
14		I would feel worse about myself if I could not solve my own problems.	1	2	3	4

Table 5. The results of item analyses (n=275)

	Scale Mean if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Factor Loadings Results	Eigenvalue	Variance Description Ratio (%)
Factor 1						
Item 9	55.05	.559	.905	.636		
Item 25	54.95	.733	.901	.821		
Item 3	54.74	.581	.904	.635		
Item 20	54.83	.669	.903	.776		
Item 24	55.20	.602	.904	.663		
Item 18	55.04	.760	.901	.833		
Item 11	55.05	.632	.903	.719		
Item 5	54.94	.708	.902	.781	9.32	33.9
Item 15	55.13	.794	.900	.804		
Item 21	54.89	.546	.905	.598		
Item 7	55.01	.757	.901	.788		
Item 12	54.95	.771	.901	.840		
Item 6	54.75	.622	.904	.747		
Item 22	55.03	.661	.903	.672		
Item 13	55.13	.657	.903	.697		
Item 4(Reverse)	54.68	.079	.913	.164		
Factor 2						
Item 19	55.38	.410	.908	.660		
Item 16	55.41	.398	.908	.732		
Item10(Reverse)	55.31	.027	.914	.321		
Item 23	55.68	.463	.907	.725		
Item 17	55.59	.502	.906	.688	2.61	12.8
Item 26(Reverse)	55.44	.290	.910	.447		
Item 2	55.52	.493	.906	.756		
Item 8	55.04	.126	.914	.376		
Item 28(Reverse)	55.08	.002	.914	.174		
Item 14	54.44	.183	.912	-.050		

public employees is a valid and reliable measurement tool. The scale is recommended to be used in examining the behaviors of public employees seeking help in mental health. Also, retesting the validity and reliability of the scale is recommended for different working areas.

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