Original Article

Validity and reliability study for the Turkish version of the community integration scale for adults with psychiatric disorders

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Abstract

Objectives: This research was aimed to ensure the validity and reliability of the Turkish version of the "Community Integration Scale for Adults with Psychiatric Disorders."

Methods: This methodological study was conducted with 170 patients with psychiatric disorders. Data were collected between June 2019 and October 2019. Research data were analyzed with Kaiser-Meyer-Olkin (KMO) analysis, Barlett's sample size test, factor analysis, cronbach's α, correlation analysis, an independent t-test. Statistical analyses were made with IBM SPSS 22 and the Lisrel 8.8 program.

Results: This study was conducted with 170 individuals with any of the diagnoses of schizophrenia and bipolar disorder. The KMO value of the scale was 0.864, and the Chi-square value was found as χ^2: 5722.153. (p<0.001). As a result of explanatory factor analysis, it was determined that there was a five-factor structure. As a result of confirmatory factor analysis, fit indices (χ^2/df: 2.013, root mean square errors: 0.077, comparative goodness of fit index: 0.96, goodness of fit index: 0.84, p=0.000) were found to be significant. The scale's Cronbach α=0.92, test-retest correlation of 0.84, and item-total score correlation were found to be high.

Conclusion: The scale is a valid and reliable tool for measuring the community integration level of adults with psychiatric disorders in the Turkish community.

Keywords: Bipolar disorder; community integration; reability; schizophrenia; validity.

Psychiatric disorders are illnesses that are commonly encountered in the community, shorten the life expectancy or impair the quality of life, affect the person and his or her family in the illness process, and also influence both the medical and socioeconomic community in various areas in many ways.[1,2] Although individuals with psychiatric disorders are disadvantaged in almost every area of the community they live in, they want to manage their lives and participate in their families and the community they live in like individuals with different chronic diseases.[3] However, it is seen that they are unable to maintain their education, have a problem with beginning to work, are unable to take advantage of the social security right, have no regular income, and can join only in limited social activities. Thus, people with psychiatric disorders are apparently unable to fully integrate into the community.[4,5] The concept of community integration attracts a great attention in the rehabilitation of chronic illnesses, and it also contains how many people with chronic illnesses are included in their community, except for the recovery in physical, psychological, and social areas.[6] Community integration contains to the physical, psychological, and social existence of individuals in the community in which they live together but also includes an increase in these areas and quality of life.[7] It also includes the individual's sense of belonging to the com-

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munity they live in and their desire to participate in the community.[8] Community integration contributes to facilitating the recovery process by realizing the goals of the individual and determining the factors that prevent him from being integrated into the community. For this reason, it is considered the result component of regaining the individual.[9] Criteria of community integration: it also cover the different aspects of being an independent individual as a family member, spouse, parent, friend, student, or employee.[10,11]

Integration of individuals with psychiatric disorders into the community in which they live together contributes to the reduction of the symptoms of the disease they have, to gain independence, to feel valuable, and to increase their self-esteem, life satisfaction, and individual competencies.[12] At the same time, it is stated that every component of community integration is a whole and supports each other, reducing stigma.[13] For this reason, determining the integration level of individuals with psychiatric disorders into the community is of critical importance in terms of both the individual and the delivery of health services.[14]

Despite the advances in prioritizing and supporting individuals with psychiatric disorders for community integration, there is no measurement tool in our country to determine the level of integration of individuals with psychiatric disorders into the community in which they live. For this reason, it is thought that the materials and measurement tools to be used to evaluate the level of community integration will be useful. In this study, it was aimed to conduct a validity and reliability study for the Turkish community to introduce the "Community Integration Scale for Adults with Psychiatric Disorders (CIS-APP-34)."

Materials and Method

Study Design

This research was carried out in accordance with the methodological research type.

Population and Sample of the Study

The population of this research consists of adult individuals with a diagnosis of schizophrenia or bipolar disorder registered with the Community Mental Health Centers (CMHC). It is recommended to determine the sample size in scale adaptation studies as 5 or 10 times for each variable in the scale.[15,16] The research sample consisted of 170 adult individuals with a diagnosis of schizophrenia and bipolar disorder registered in the CMHC at the time of the research (June 2019–October 2019) and meeting the inclusion condition of the study, consisting of 5–10 individuals for each item used in determining the sample size in scale adaptation studies. The cognitive functions of the participants, such as memory, attention, and orientation, are sufficient. The questionnaire included in the research is a self-report scale and was answered by the participants.

What is presently known on this subject?
- Integration of individuals with psychiatric disorders into the community they live together contributes to the reduction of the symptoms of the disease they have, to gain independence, to feel valuable, to increase their self-esteem, life satisfaction and individual competencies.

What does this article add to the existing knowledge?
- There is no measurement form in Turkish community to determine the level of integration of individuals with psychiatric disorders into the community they live in. For this reason, it contributes to the care and practice of psychiatric nursing by adapting it to Turkish.

What are the implications for practice?
- This scale is a scale with high validity and reliability that can be used to determine the level of integration of individuals with different psychiatric disorders into the community they live in.

Data Collection Tools

We were used to collect the data for this research, "Individual Information Form" and "Community Integration Scale for Adults with Psychiatric Disorders."

Individual Information Form

Developed by the researchers, this form includes questions about the descriptive characteristics of patients, such as illness name, gender, age, occupation, educational background, marital status, and economic condition.

CIS-APP-34

Cabral et al.[17] (2014) measured the integration level of individuals with psychiatric disorders into the community they live in, and Cabral et al.[17] (2018) again conducted a validity and reliability study. The scale has 34 items and 5 sub-dimensions. For each item of the Likert-type scale, it is evaluated by scoring "0 points" as "I do not know," "1 point" I strongly disagree, "2 points" I do not agree, "3 points" I agree, and "4 points" I strongly agree. The scale does not have any cutoff points, and a total score of 0–136 is taken. An increase in the total score obtained from the scale indicates that the level of community integration has increased. The Cronbach α coefficient of the original form of the scale is 0.90.

Data Analysis and Evaluation

The first stage of adapting the scale to Turkish was carried out by the translation-back translation method.[18,19] The original form of the scale was translated into Turkish by two independent English and Turkish language professionals. After being examined by the researchers, the Turkish form was created and translated back into English by two different independent English and Turkish language professionals. As a result of the translation-back translation evaluation, it was reviewed and edited by the researchers, and the content validity was evaluated. For content validity, it was sent to 10 professionals in the field of mental health and psychiatric nursing by e-mail. The final form of the form, which was revised with expert suggestions, was a pre-application with 30 individuals registered in the CMHC. After the preliminary application, no negative feedback was received from the patients regarding the clarity of the questions. The research was then conducted with 170 individuals.

The Kaiser-Meyer-Olkin (KMO) test was used to evaluate the adequacy of the sample size, and the Barlett's test was used to determine the scale's suitability for factor analysis. Then, explanatory factor analysis (EFA) was used to evaluate the factor structure of the scale, and confirmatory factor analysis (CFA) was used to confirm the factor structure as a result of EFA.

Cronbach's alpha coefficient of internal consistency of the scale was used for reliability analysis; item-total correlation analysis was used to determine item loads in the scale; and test-retest was used to determine the scale's invariance over time.

Different statistical analyses were applied, such as the Kolmogorov–Smirnov and Shapiro–Wilks tests, in accordance with the normal distribution of the research data, and the Independent Sample t-test to determine the difference between the community integration level of psychiatric diseases. Statistical analyses were performed with IBM SPSS 22.0 New York and the Lisrel 8.8 package program.

Ethical Considerations

The first step in Turkish validity and reliability studies is to obtain permission from the person who developed the scale. The necessary written permission was obtained from the owner of the scale used in the study. Later, approval was obtained from the Gaziantep University Clinical Research Ethics Committee (2019–138). Institutional permission was obtained from the Provincial Health Directorate. The purpose of the study was explained to the patients who accepted to participate in the study, and their verbal and written consents were obtained. This study is conducted in accordance with the principles of the Declaration of Helsinki.

Results

In the study, the average age of individuals was 41.5: 77.6% of them are male, 52.4% of them are primary school graduates, 56.5% are single, 54.1% have no children, 98.2% live in the city center; and 83.5% did not work. It was determined that 70.6% of them had less income than their expenses. It was determined that 64.7% of the individuals had a diagnosis of schizophrenia, 65.9% of them were hospitalized 3 times or less, 51.8% of them were diagnosed with the disease at the age of 21–30, 90.6% of them had regular drug use, 54.1% did not smoke, and 54.1% did not attempt suicide. 89.4% received

family support; 68.2% did not receive any institutional support. It was determined that 29.4% of them came to TRSM only for drug prescription or control purposes.

Validity Analyses

As a result of the translation of the scale into Turkish with the translation-back translation method, it was reviewed by the researchers, and its content validity was evaluated. According to the evaluations, the content validity index value was found to be 0.98.

The KMO value was 0.864, which was used to evaluate the adequacy of the sample size, and the Barlett's Test of Sphericity result was $X^2=5722.153$ to evaluate the scale's suitability for factor analysis (p<0.01).

First, EFA was performed for factor analysis. Six sub-dimensions of the scale were obtained, which explained 77% of the total variance with an eigenvalue over 1.00 with EFA. However, as a result of EFA, there should be three or more items belonging to each sub-dimension.[15] It is also stated that the Scree Plot test is used to determine the factor structure.[18] Therefore, since the scale had five sub-dimensions as a result of the Scree Plot test and only two items were found in the sixth sub-dimension as a result of the EFA, it was limited to five sub-dimensions with an eigenvalue above 1.5. EFA was performed with varimax rotation again in accordance with the limitation. As a result of the factor analysis performed in the final form of the scale, a structure that explains 5 sub-dimensions in parallel with the original form and 73.155% of the total variance was obtained. The first sub-dimension explains 21.467% of the scale, the second sub-dimension explains 17.289% of the scale, the third sub-dimension explains 13.796% of the scale, the fourth sub-dimension explains 11.017% of the scale, and the fifth sub-dimension explains 9.586% of the scale.

Table 1 contains the sub-dimensions and items of the scale.

Table 2 shows the findings of the factor load values on the scale. The factor loading values of the scale ranged from 0.671 to 0.946. As a result of the EFA on the scale, the factor structure was confirmed by the CFA findings. Accordingly, it can be said that the items have a high factor loading.

Figure 1 shows the path diagram of the DFA. χ^2/sd as a result of DFA: 2.013, RMSA: 0.077, RMR: 0.056, NFI: 0.95, comparative goodness of fit index (CFI): 0.96. The fit indices obtained as a result of CFA provide the acceptable fit index criteria.[19,20]

Table 1. Sub-dimensions of the community ıntegration scale for adults with psychiatric disorders

Sub-dimensions of the community integration scale for adults with psychiatric disorders	Items
1. Psychosocial community integration - social network dimension and characteristics	2., 3., 4., 7., 8., 12., 13., 17., 21. ve 34. Item
2. Physical community integration, independence, and use of community resources	10., 11., 15., 19., 23., 24., 28., 29. ve 32. Item
3. Psychosocial community integration - community support	5., 9., 14., 18., 22. ve 31. Item
4. Psychosocial community integration-emotional connection	25., 26., 27. ve 30. Item
5. Physical community integration community participation and leisure activities	1., 6., 16., 20. ve 33. Item

Table 2. Item loads of the community ıntegration scale for adults with psychiatric disorders

Items	Dimensions				
	1	2	3	4	5
Item21	0.724				
Item 4	0794				
Item 34	0.823				
Item 12	0.828				
Item 13	0.828				
Item 3	0.836				
Item 17	0.852				
Item 8	0.861				
Item 7	0.874				
Item 2	0.930				
Item 23		0.671			
Item 15		0.677			
Item 11		0.732			
Item 29		0.742			
Item 10		0.792			
Item 19		0.81			
Item 24		0.81			
Item 28		0.827			
Item 32		0.845			
Item 18			0.785		
Item 31			0.808		
Item 9			0.822		
Item 22			0.848		
Item 5			0.875		
Item 14			0.884		
Item 25				0.931	
Item 27				0.933	
Item 30				0.942	
Item 26				0.946	
Item 20					0.716
Item 6					0.723
Item 16					0.745
Item 33					0.782
Item 1					0.865

Figure 1. Model of CFA of the Scale

Reliability Analyses

Table 3 shows the results of the item analysis related to the Community Integration Scale.

For the internal consistency of the scale, Cronbach's coefficient was checked, and it was found to be high at 0.929. Cronbach's α values of the sub-dimensions of the scale: (1). Subdimension: 0.929; (2). Subsize: 0.955; (3). Subsize: 0.930; (4). Subdimension: 0.933; (5). Subdimension: 0.946; (6). Subdimension: It was determined to be 0.854.

In Table 4, the item-total correlation value was determined to be above 0.30 for all items in the scale. In this direction, it has been 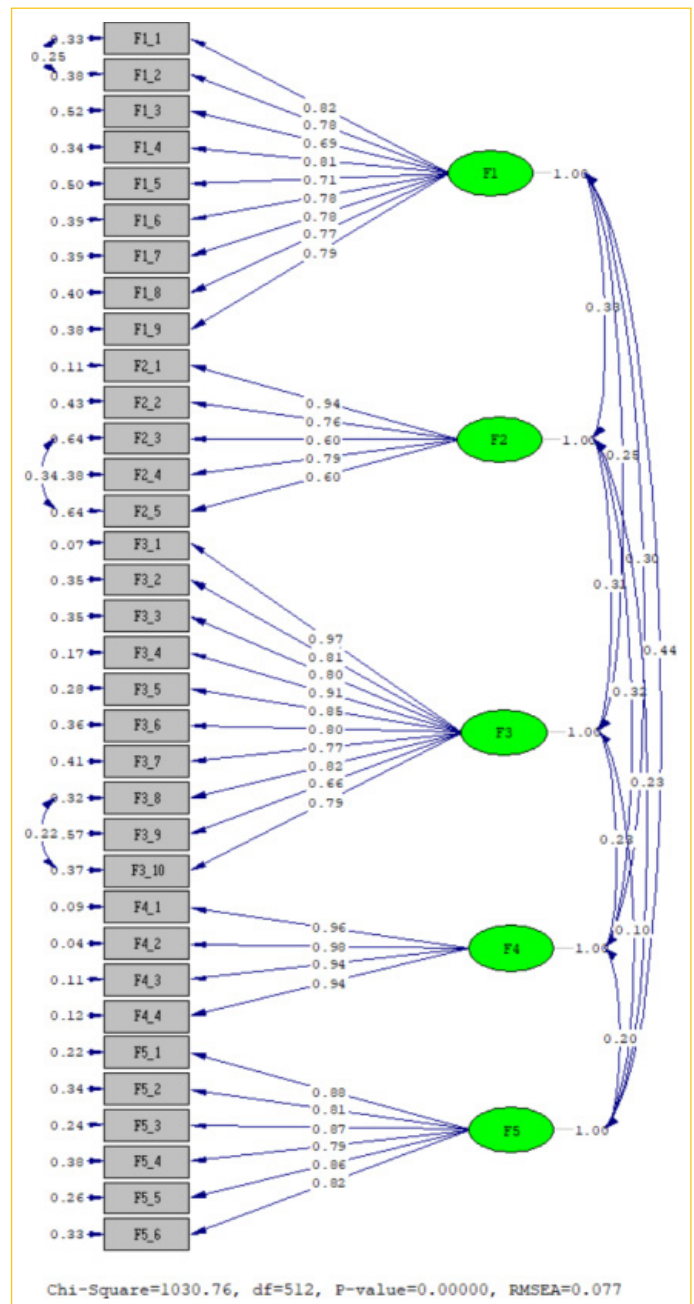determined that the measuring power of the items is good and they contribute enough to the determination of the level of the structure to be measured. According to the item-total correlation analysis, the relationships between the scale items and the total scale ranged from 0.389 to 0.694, and the relationships were significant ($p<0.01$).

The scale was retested 20 days later with 30 patients enrolled in TRSM (Table 5). As a result of the est-retest analysis, r=0.847 was found, and the correlation between repeated measurements was determined to be highly significant ($p<0.001$).

In addition, the total scores of the individuals with a diagnosis of schizophrenia or bipolar disorder in the study differed sig-

Table 3. Statistics on item analysis of the community integration scale for adults with psychiatric disorders

Item no	If the item is deleted	Adjusted Item-Total score correlation	If the item is deleted, the cronbach alpha coefficient of the scale
Item 1	81.44	0.47	0.93
Item 2	82.08	0.61	0.93
Item 3	82.29	0.50	0.93
Item 4	82.05	0.53	0.93
Item 5	81.44	0.47	0.93
Item 6	81.43	0.48	0.93
Item 7	82.09	0.57	0.93
Item 8	82.25	0.54	0.93
Item 9	81.44	0.40	0.93
Item 10	81.46	0.65	0.93
Item 11	81.46	0.67	0.93
Item 12	82.24	0.54	0.93
Item 13	82.32	0.52	0.93
Item 14	81.51	0.42	0.93
Item 15	81.84	0.56	0.93
Item 16	82.05	0.41	0.93
Item 17	82.35	0.58	0.93
Item 18	81.49	0.37	0.93
Item 19	81.85	0.56	0.93
Item 20	81.48	0.48	0.93
Item 21	82.42	0.46	0.93
Item 22	81.52	0.46	0.93
Item 23	81.55	0.57	0.93
Item 24	81.96	0.54	0.93
Item 25	81.70	0.48	0.93
Item 26	81.62	0.50	0.93
Item 27	81.64	0.49	0.93
Item 28	82.08	0.58	0.93
Item 29	81.79	0.59	0.93
Item 30	81.64	0.45	0.93
Item 31	81.61	0.50	0.93
Item 32	82.07	0.56	0.93
Item 33	82.09	0.34	0.93
Item 34	82.25	0.55	0.93

Table 4. Item and total scale correlation values of the community integration scale for adults with psychiatric disorders

Item no	r	p
Item 1	0.502	0.000**
Item 2	0.641	0.000**
Item 3	0.539	0.000**
Item 4	0.567	0.000**
Item 5	0.506	0.000**
Item 6	0.514	0.000**
Item 7	0.604	0.000**
Item 8	0.578	0.000**
Item 9	0.440	0.000**
Item 10	0.674	0.000**
Item 11	0.694	0.000**
Item 12	0.570	0.000**
Item 13	0.556	0.000**
Item 14	0.460	0.000**
Item 15	0.599	0.000**
Item 16	0.450	0.000**
Item 17	0.617	0.000**
Item 18	0.412	0.000**
Item 19	0.594	0.000**
Item 20	0.514	0.000**
Item 21	0.496	0.000**
Item 22	0.498	0.000**
Item 23	0.605	0.000**
Item 24	0.583	0.000**
Item 25	0.526	0.000**
Item 26	0.545	0.000**
Item 27	0.533	0.000**
Item 28	0.621	0.000**
Item 29	0.625	0.000**
Item 30	0.497	0.000**
Item 31	0.534	0.000**
Item 32	0.602	0.000**
Item 33	0.389	0.000**
Item 34	0.587	0.000**

Table 5. Test-retest correlation

	n	r	p
Pre test	170		
Post test	30	0.847	0.000

nificantly. These results showed that the social integration level of individuals with a diagnosis of schizophrenia was lower than that of individuals with a diagnosis of bipolar disorder (Table 6).

Discussion

The main purpose of this research is to introduce the CIS-APP-34 to the Turkish community. The absence of a standard measurement tool in our country to measure the integration level of individuals with psychiatric disorders into the community they live in has been effective in determining the research subject.

Construct validity is the scientific expression of the accuracy of the information about the construct to be measured by the researcher.[18] Factor analysis is one of the analyses used to evaluate construct validity. Two approaches, EFA and CFA, are generally used in the scale development or adaptation process.[15]

Table 6. Community ıntegration scale total score comparison for adults with psychiatric disorders						
Group	n	$\bar{X}$	S.S.	t	SD	p
Community integration scale						
Schizophrenia bipolar disorder	110	81.7	18.35798	−2.530	168	0.012*
	60	89.1	17.90909			

Before factor analysis, it is necessary to evaluate whether the sample size is sufficient. In this study, the sample size was calculated as 5 times the existing variables. Since the scale consists of 34 items, the sample size was 170 individuals. This value shows that the sample size is sufficient.[15,16] In addition, the adequacy of the determined sample for factor analysis is evaluated by KMO analysis. The KMO value varies between 0 and 1. However, for the application of factor analysis, there should be a relationship between "n" and the selected variables. The existence of this relationship is determined by Barlett's Test of Sphericity. If p<0.05 in Barlett's Test of Sphericity, there is a significant relationship between the variables for factor analysis.[21] In this study, the KMO value was 0.864>0.70, and the Barlett sphericity test was significant (p<0.01). As a result, it shows that the sample is sufficient and suitable for factor analysis.

As a result of the factor analysis of the scale, a structure with five factors explaining 73.15% of the total variance was obtained. In factor analysis, the factor load of the items should be higher than 0.30. An item factor load of 0.45 or higher is a good criterion for item selection.[22] In this study, it was determined that the factor load of each item on the scale was above 0.45. It has been determined that the scale consists of five sub-dimensions.

In the research, Chi-square/degree of freedom (χ2/sd), root mean square errors (RMSEA), goodness of fit index (GFI), CFI, adjusted index of fit (AGFI), Approximate, and standardized root mean errors (SRMR) were studied. As a result of DFA, it was determined as RMSEA: 0.077, χ^2/sd:2.013, GFI: 0.84, AGFI: 0.81, CFI: 0.96, and SRMR: 0.058. The fit indices obtained as a result of CFA were found to be sufficient.

The reliability of the scale was evaluated with Cronbach's α coefficient, item-total score correlation, and test-retest methods. Cronbach's α coefficient ranges from 0 to 1.[23] In this study, the Cronbach's coefficients of the scale and its sub-dimensions were calculated. The Cronbach α number of the scale was 0.929, and the Cronbach α number of the sub-dimensions was 0.955, 0.930, 0.946, 0.946, and 0.854, respectively. With these results, it can be said that the scale has high reliability.

Item-total score correlation expresses the relationship between the scores of the scale items and the total score of the scale. Items with an item-total score correlation of 0.30 and higher distinguish well; items with 0.20–0.30 should be corrected, or the item can be included in the scale if deemed necessary; and items lower than 0.20 should be removed from the scale.[22,24] The relationship between the total scale score and the items on the scale ranged from 0.389 to 0.694. It was determined that there was a strong and significant relationship between scale total score and scale items. Therefore, it was determined that the items should be included in the scale.

The test-retest method expresses the stability of the scale. In this method, the reliability of the same measurement tool is evaluated by applying it to the same individuals twice. If the results of the two applications are the same, it is assumed that the scale is reliable. The accepted criterion for the reliability coefficient is that it is above 0.80.[18] In this study, r=0.847 was found as a result of the test-retest (p<0.001). When the scale was re-applied to individuals after 20 days, it gave similar results. In this direction, the invariance of the scale with respect to time has been proven.

In this study, a significant difference was found between the social integration level of individuals with schizophrenia and bipolar disorder in the sample group (p<0.05). In this direction, it is important to plan intervention studies to increase the social integration of individuals with schizophrenia.

As a result of the analyses applied in this study, it was determined that the scale is a valid and a reliable one. The scale is thought to be a scale that can be used by psychiatric nurses both in psychiatry clinics and CMHCs to determine the level of integration of individuals with psychiatric disorders into the community they live in.

Conclusion

The scale is a valid and reliable measurement tool to determine the community integration level of individuals with psychiatric disorders. It is thought that this research can contribute to future research. In addition, as a psychiatric nurse, it is necessary to determine the integration level of individuals into the community to determine the nursing interventions that are planned to be implemented to strengthen the relationship of the individual with the community in which he lives by evaluating the individual as a whole in biopsychosocial care. It is thought that the scale will facilitate the work of the psychiatric nurse in the application, evaluation, and interpretation of the results in the psychiatry service and CMHC setting; therefore, it will contribute to the regular evaluation of the social integration level of the individuals. It is recommended to apply the scale to a larger sample, repeating the validity and reliability findings of the scale and examining the results. In addition, this research can be evaluated with individuals with different psychiatric disorders, such as obsessive-compulsive disorder, anxiety disorder, nutrition, and eating disorders.

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References

1. Saruç S, Kılıç AK. Social profile of patients receiving service from community mental health center and provided services in the center. J Soc Soc Work [Article in Turkish] 2015;26:53–71.
2. Hudson CG. Deinstitutionalization of mental hospitals and rates of psychiatric disability: An international study. Health Place 2019;56:70–9.
3. Bond GR, Salyers MP, Rollins AL, Rapp CA, Zipple AM. How evidence-based practices contribute to community integration. Community Ment Health J 2004;40:569–88.
4. Granerud A, Severinsson E. The struggle for social integration in the community--the experiences of people with mental health problems. J Psychiatr Ment Health Nurs 2006;13:288–93.
5. Aslanturk HA. Community integration and social rights in mental health area. Turk J Fam Med Primary Care [Article in Turkish] 2010;10:259–70.
6. Okoye EC, Obi GC, Akosile CO, Umunnah JO, Nwankwo MJ, Obiora LO. Community integration of people living with epilepsy in a Nigerian population. Epilepsy Res 2016;128:21–6.
7. Stumbo NJ, Ross J. Community integration: Showcasing the evidence for therapeutic recreation services. Ther Recreat J 2015;49:35–60.
8. McColl MA, Davies D, Carlson P, Johnston J, Minnes P. The community integration measure: Development and preliminary validation. Arch Phys Med Rehabil 2001;82:429–34.
9. Abdallah C, Cohen CI, Sanchez-Almira M, Reyes P, Ramirez P. Community integration and associated factors among older adults with schizophrenia. Psychiatr Serv 2009;60:1642–8.
10. Magasi S, Hammel J, Heinemann A, Whiteneck G, Bogner J. Participation: A comparative analysis of multiple rehabilitation stakeholders' perspectives. J Rehabil Med 2009;41:936–44.
11. Resnik L, Borgia M, Silver B. Measuring community ıntegration in persons with limb trauma and amputation: A systematic review. Arch Phys Med Rehabil 2017;98:561–80.e8.
12. Raitakari S, Haahtela R, Juhila K. Tackling community integration in mental health home visit integration in Finland. Health Soc Care Community 2016;24:e53–62.
13. Pahwa R, Smith ME, Kelly EL, Dougherty RJ, Thorning H, Brekke JS, et al. Definitions of community for ındividuals with serious mental illnesses: Implications for community ıntegration and recovery. Adm Policy Ment Health 2021;48:143–54.
14. Pahwa R, Kriegel L. Psychological community integration of individuals with serious mental illness. J Nerv Ment Dis 2018;206:410–6.
15. Gulcur L, Tsemberis S, Stefancic A, Greenwood RM. Community integration of adults with psychiatric disabilities and histories of homelessness. Community Ment Health J 2007;43:211–28.
16. Eşitti B. Sosyal bilimlerde araştırma yöntem ve teknikleri. In: Aslan DA, Çağlayandereli M, editörler. 2. Baskı. Ankara: Paradigma Yayıncılık; 2018. s.333–41.
17. Cabral J, Carvalho CB, da Motta C, Sousa M. Validation of the community integration scale for adults with psychiatric disorders (CIS-APP-34). Community Ment Health J 2018;54:673–81.
18. Esin NM. Veri toplama yöntem ve araçları & Veri toplama araçlarının güvenirlik ve geçerliği. In: Erdoğan S, Nahcivan N, Esin MN, editörler. Hemşirelikte Araştırma. 2. Baskı. İstanbul: Nobel Tıp Kitabevi; 2018. s.193–232.
19. Seçer İ. Psikolojik test geliştirme ve uyarlama süreci SPSS ve LISREL uygulamaları. Ankara: Anı Yayıncılık; 2015. s.65–71.
20. Böke K. Sosyal bilimlerde araştırma yöntemleri. 3. Baskı. İstanbul: Alfa Basım Yayım; 2011. s.63–96.
21. Yeşilyurt S, Çapraz C. A road map for the content validity used in scale development studies. Erzincan Üniv Eğitim Fak Derg [Article in Turkish] 2018;20:251–64.
22. Büyüköztürk Ş. Sosyal bilimlerde veri analizi el kitabı. 11. Baskı. Ankara: Pegem Akademi; 2010.
23. Ercan I, Kan IN. Ölçeklerde güvenirlik ve geçerlik. Uludağ Üniv Tıp Fak Derg [Article in Turkish] 2004;30: 211–21.
24. Özgüven Eİ. Psikolojik testler. 11. Baskı. Ankara: Nobel Yayın Dağıtım; 2012. s.83–120.