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The Turkish Validity and Reliability of the Adolescent Dysmenorrhea Self-Care Scale

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ABSTRACT

Objective: Dysmenorrhea is a common health problem that negatively affects daily life and academic skills when not managed well. This study was conducted to examine the Turkish validity and reliability of the Adolescent Dysmenorrhea Self-Care Scale.

Methods: This methodological study was conducted in 7 high schools in Bursa, Turkey. The research was carried out with 1041 high school students who met the participation criteria. The Adolescent Dysmenorrhea Self-Care Scale was adapted to Turkish by using translation-back translation method. The validity of the scale was evaluated with the content validity index, confirmatory factor analysis, similarity, and discriminant validity coefficients. The reliability was evaluated by item-total correlation, internal consistency coefficient, and test-retest analysis.

Results: According to the evaluations of the 10 experts whose opinions were taken for the Content Validity, it is determined that each item scored above 3 (3.52-4.00), and the mean score was 3.92 ± 0.14 and the content validity index was .98. Cronbach's alpha reliability coefficient was found .96. Confirmatory factor analysis fit indexes and similarity and discriminant validity coefficients showed that the scale has sufficient compatibility with the theoretical six-factor structure. Item total correlations of subdimensions were .20-.68 and Cronbach's alpha coefficients were .77-.65. Test-retest correlations of the Adolescent Dysmenorrhea Self-Care Scale and its subdimensions were found .87-.99.

Conclusion: Turkish Adolescent Dysmenorrhea Self-Care Scale is a valid and reliable data collection tool consisting of 40 items and six subdimensions.

Keywords: Dysmenorrhea, Orem's self-care theory, reliability and validity, self-care

1. INTRODUCTION

Dysmenorrhea is a common problem among young girls that negatively affects daily life and academic success when it is not managed well. The number of women with dysmenorrhea has tripled in the last 30 years, and the prevalence of dysmenorrhea in the society varies between 20% and 90% (1,2,3).

Dysmenorrhea is considered the normal nature of the female sex in most cultures (2). Adolescents knowledge, attitudes, values, and beliefs about reproductive and sexual health are influenced by the culture in which they live (4). In this direction, the adolescence period is the key point for improving women's health.

It is important for adolescents to be aware of the abnormal symptoms of dysmenorrhea. In this period, there is increase in adolescents desire to be independent in meeting their self-care needs, the risk of exposure to stress, and their cognitive and emotional development needs. Therefore, self-care training is very important in the management of dysmenorrhea (5).

Orem's theory of self-care deficit offers the most comprehensive approach to the importance of self-care for humans (6). Self-care according to Orem; self-care needs include actions to improve health, self-care management, disease prevention, and coping with disease symptoms (7). Self-care for dysmenorrhea usually consists of physical (8), pharmacological (9), non – pharmacological (10) and psychological strategies that adolescents self-administer with the advice of family (5) or friends without medical supports (11). Research has shown that adolescent girls rarely seek medical treatment for the treatment of dysmenorrhea

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but prefer self-care instead (2,11,12). However, self-care practices in adolescents are not at the desired level (13).

Turkish validity and reliability studies have been carried out in the literature regarding the content of dysmenorrhea; the Menstrual Attitude Questionnaire (14), the Menstrual Symptom Questionnaire (15), Menstrual Distress Questionnaire (16), Functional and Emotional Measure of Dysmenorrhea (17) and the Effects of Dysmenorrhea Scale (17) scales are used. With these scales, premenstrual syndrome or dysmenorrhea symptoms and attitudes are determined, but self-care skills for dysmenorrhea cannot be evaluated in all dimensions (13). One of these scales, the Effects of Dysmenorrhea Scale, and the Adolescent Dysmenorrhea Self-Care Scale (ADSCS), whose validity and reliability we have studied it includes the way individuals express their feelings about dysmenorrhea, how external factor controls are provided for dysmenorrhea symptoms, and what forms of coping practices for pain are determined. ADSCS the information sources used by the individual on self-care are questioned, the resources for seeking help for self-care are determined in relation to the information seeking dimension, and the cognitive and psychological factors of the individuals self-control for dysmenorrhea are questioned.

Self-care strategies in studies focus on self-care practices and cannot be evaluated holistically in terms of external support and regulation of negative emotions (12). It is unclear which self-care strategies adolescents use, the effectiveness of these strategies and which information sources they refer to in determining strategy (1). At the same time, it is necessary to increase the awareness of adolescents about the psychological aspect of self-care and to ensure their evaluation.

Research based on large study populations is needed to determine the use of self-care strategies in adolescents to gain an in-depth understanding of dysmenorrhea self-care strategies (12). In order to provide the necessary support to young people with dysmenorrhea problems, and to develop and evaluate self-care programs, firstly, self-care behaviors should be evaluated with a valid and reliable measurement instrument (18). It is thought that this measurement tool, which combines cognitive and psychological factors, will contribute to the literature by evaluating the sub-dimensions of searching for knowledge, expression of emotions, seeking assistance, control over external factors, coping practices and self-control being of dysmenorrhea self-care (6). Thus, effective and reliable self-care practices specific to the individual will be developed.

The aim of this study is to adapt the ADSCS, which was developed by Hsieh et al., (19) to provide a comprehensive assessment of the self-care behaviors of adolescents, into Turkish, and to make its validity and reliability analysis.

2. METHODS

2.1. Ethical Considerations

Written permission was obtained from Ching-Hsing Hsieh via e-mail for the use of the ADSCS. Before the research, ethical approval was received from the Marmara University Institute of Health Sciences Ethics Committee (06.02.2017-63), and the official permission was obtained from the Directorate of National Education. Permission for the research was obtained from the institutions where the research was conducted and from the parents. In the test-retest phase, information security was provided by assigning personal codes to the participants.

2.2. Design and Sample

This methodological study was conducted between 15.04.2017-15.05.2017 with female students (7 high schools, N = 1200) studying in all high schools in a district of Bursa. The criteria for participation in the study were having primary dysmenorrhea and no chronic disease that caused dysmenorrhea. Primary dysmenorrhea was assessed by the criteria of (1) the occurrence of the pain from time to time or in every menstrual cycle, (2) being in the waist, groin, or abdomen, (3) starting on the day before menstruation or the first day of menstruation, (4) to disappear within 48-72 hours after the onset of menstruation (20,21).

1056 students with primary dysmenorrhea filled the ADSCS. 15 scales that were filled incompletely were excluded from the analysis (N=1041). The power analysis of Statistica 10 package program for sample size showed that N = 1041 is sufficient for Confirmatory Factor Analysis (CFA).

The pilot test was conducted with 131 female students by selecting a random class from each level (high school 1,2,3,4).

The re-test was conducted with 100 female students.

2.3. Instrument

2.3.1. The Adolescent Dysmenorrhea Self-Care Scale (ADSCS)

It was developed by Hsieh et al. (2004) to determine the self-care experiences of adolescent young girls for dysmenorrhea. The scale consists of 6-likert type (0 = totally disagree, 1 = 20% agree, 2 = 40% agree, 3 = 60% agree, 4 = 80% agree, 5 = 100% agree) 40 questions. Six factors that are divided into two parts in terms of theory as externally oriented behavior and internally oriented behavior, have been defined. Externally oriented subscales are searching for knowledge, expression of emotions, seeking assistance and control over external factors, and internally oriented subscales are resource utilization and self-control being. Cronbach alpha reliability coefficient was found .89 for the whole scale, resource utilization .73, seeking assistance .80, control over external factors .65, self – control being .62, expression of emotions .77, searching for knowledge .76, for the subscales (19).

As the ADSCS score increases, self-care behaviors increase.

2.4. Procedures

Data was collected from students based on self-report and data collection took about 20 minutes.

2.5. Data Analysis

For the content validity, content validity index analysis; for the construct validity, similarity and discriminant validity analysis along with confirmatory factor analysis were performed. The data were analyzed using the Social Sciences Statistics Package Version 24 and Lisrel 9.2 program for Windows. Stats tool package excel file was used for calculations related to similarity and discriminant validities (22).

Since item scores were ordinal data, CFA was performed using the Diagonally Weighted Least Square (DWLS) estimation method on asymptotic covariances. In CFA, firstly the items were associated with primary level factors in Model 1 as suggested by Hsieh et al. (19) and this theoretical structure defined as Model 1. In addition, Model 2 based on the hypothesis that sub-factors are independent features and Model 3, which predicts that sub-factors can be combined under a single basic factor, were examined within the scope of the test of equivalent models. Also, in Model 4, the results of the theoretical structure (structural model) in which six primary level factors are represented under two secondary level factors were evaluated.

The reliability coefficients of the measurements were examined using Cronbach, composite reliability, and stratified alpha methods. Composite reliability is one of the methods of determining reliability based on internal consistency of a multidimensional scale. As a result of the composite reliability confirmatory factor analysis, it is calculated with factor loads and error rates. The acceptable value of composite reliability .70 is specified as (23). Cronbach alpha internal consistency reliability coefficient, the lower limit of reliability real data on scores obtained from multidimensional tests. The truth about scores from multidimensional tests was stated that the reliability measure could be better determined by the stratified alpha coefficient (24). The total test scores obtained from multidimensional tests such as ADSCS reliability were compared using the stratified alpha coefficient and Cronbach's alpha.

Pearson correlation analysis was performed for test-retest reliability. Statistical significance was accepted as $p<.05$.

2.6. Instrument Adaptation

For language adaptation, the ADSCS's English form was translated into Turkish by two language experts. Two Turkish forms were examined by researchers and created as a single form. Later, the Turkish ADSCS was retranslated into English by two different linguists. The back-translated scales were examined by the researchers and converted into a single form (25). English back-translation and the ADSCS English form were compared. Original and back-translation forms were examined, and it was determined that there was no difference in meaning between the two forms.

2.7. Content Validity

After the translation process, opinions of 10 experts who were experts in the fields of gynecology and obstetrics, child and public health nursing were received for the content validity of the scale. The Content Validity Index (CVI) was calculated to evaluate scope validity (26). Experts were asked to evaluate the suitability and comprehensibility of each item in the scale by scoring 1-4 according to the content validity index (CVI) [*1 point: Not suitable-4 points: Very suitable*].

With the suggestion of the experts, the word 'pain' was used instead of the word 'cramp' in the scale, and minor corrections that did not change the meaning were made in the items 10, 12, 13, 17, 34, 36 and 38.

2.8. Pilot Test

During the pilot test with 131 students selected from each level (high school 1,2,3,4), the students were asked whether there were any items that were not understood. Only some questions about acupuncture were asked, and an explanation was made by the researcher and an explanation was added to the 34th question accordingly. Additionally, minor changes that did not change the meaning were made to the items 20, 27, 36, and 39.

3. RESULTS

3.1. Descriptive Characteristics

The average age of the students was 16.52 ± 1.08 (min:14, max:19) and 31.5% were tenth grade students. It was found that 49.2% of the students 'occasionally' experienced and 50.8% of them 'always' experienced menstrual pain (Table 1).

Table 1. *Individual and dysmenorrhea features of students (n:1041)*

Variables	n	%
Grade		
9	216	20.8
10	328	31.5
11	276	26.5
12	221	21.2
Dysmenorrhea		
Occasionally	512	49.2
Always	529	50.8

3.2. Content Validity

According to the expert evaluations, it was determined that each item received more than 3 points (3.52-4.00), the mean

score was 3.92 ± 0.14 and the content validity index (CVI) was .98.

3.3. Pilot Test

When the pilot test data were evaluated (n = 131), the item-total scores of all items were >.20, the Cronbach Alpha internal consistency coefficient of the scale was .88, and the Cronbach Alpha internal consistency coefficient of the sub-dimensions were .60-.76.

3.4. Construct Validity

3.4.1. Confirmatory Factor Analysis (CFA)

In the study conducted by Hsieh et al., (19) it was suggested that the ADSCS theoretically consists of six primary factors; four of these primary factors (searching for knowledge, expression of emotions, seeking assistance, and control over external factors) are externally oriented behaviors and two of these primary factors (coping practices and self-control being) are internally oriented behaviors. In the CFA, as suggested by Hsieh et al., the theoretical structure (measurement model) created in this direction by associating the items with the primary level factors is given in the Model 1 line in Table 2. In addition, the results of the three different models are presented in Table 2.

Table 2. *Model tests and comparisons*

Measurement Models				Structural Model
	Model 1 (Theorotical)	Model 2 (Six Unrelated Factors)	Model 3 (Single Factor)	Model 4 (Two Factors)
Satorra Bentler x^2_{df}	$4895.22_{(725)}$	$6559.57_{(740)}$	$8347.97_{(740)}$	$4973.94_{(733)}$
$\frac{x^2}{sd}$	6.75	8.86	11.28	6.78
CFI	.90	.86	.82	.90
RMSEA (90% CI)	.07 (.07-.08)	.09 (.09-.09)	.10 (.10-.10)	.08 (.07-.08)
SRMR	.09	.18	.11	.09
Δx^2_{sd}		$1.664.35_{(15)}$	$3452.75_{(15)}$	

CFI: comparative fit index, RMSEA: root mean square error of approximation, SRMR:standardized root mean square residual; Satorra Bentler: Satorra-Bentler is a widely used statistical method in the field of structural equation modeling (SEM). Satorra-Bentler is used to test the model fit when observed variables are not normally distributed; Satorra Bentler x^2_{df}: Satorra Bentler Scaled Chi-Square (degree of freedom), sd:standard deviation

It was determined that Model 1 in Table 2 has better coefficients of agreement and disagreement than Models 2 and 3. Except for chi-square / sd and Standardized Root Mean Square Residual (SRMR), it was observed that the coefficients for Model 1 were close to the recommended cut-off values. The coefficient of agreement of the equivalent models fell far behind the theoretical model.

3.4.2. Theoretical Model Similarity and Discriminant Validity

The coefficients regarding the similarity and discriminant validities of the theoretical model are given in Table 3 and the composite reliability coefficients (CR) of the sub-dimensions were found to be higher than .70. However, average variance extracted (AVE) values of the other factors, other than searching for knowledge, are <.50. maximum squared variance (MSV) values are smaller than AVE for self-control being and searching for knowledge but larger than AVE for the other dimensions. AVE value is smaller than average shared square variance (ASV) only for control over external factors. Also, the square root of the average variance extracted (√AVE) for self-control being and searching for knowledge are larger than their correlations with the other factors.

In Table 4, the standard regression weights of the dimensions are between .76 and .80 for searching for knowledge; .45 and .75 for expression of emotions; .58 and .81 for seeking assistance; .26 and .68 for control over external factors; .25 and .77 for coping practices and .37 and .92 for self-control being.

Table 3. *The ADSCS theoretical model (model 1) similarity and discriminant validity coefficients*

Variables	CR	AVE	MSV	ASV	1	2	3	4	5	6
Coping practices	.85	.30	.52	.26	**.55**					
Seeking assistance	.78	.48	.67	.34	.54	**.69**				
Control over external factors	.70	.27	.52	.30	.72	.62	**.52**			
Self-control being	.79	.45	.01	.00	-.10	.03	.04	**.67**		
Expression of emotions	.81	.43	.67	.35	.57	.82	.65	-.03	**.65**	
Searching for knowledge	.87	.62	.37	.26	.42	.61	.39	.10	.58	**.79**

ADSCS: Adolescent Dysmenorrhea Self-Care Scale, CR:composite reliability, AVE:average variance extracted, MSV:maximum squared variance, ASV:average shared square variance

3.5. Reliability

Cronbach and Stratified alpha coefficients calculated (24) for the ADSCS's four

and two dimensional models are given in Table 5. The Cronbach alpha reliability coefficients of the sub-dimensions of the scale were found between .65 and .77 and the stratified alpha reliability coefficient was found .96. Item total correlations are between .20 and .68. The mean score of the ADSCS was determined to be 136.54 ± 30.33. When

item means were analyzed, it was found that the lowest mean was in the searching for knowledge sub-dimension and the highest one was in the expression of emotion sub-dimension (Table 5).

The test-retest correlation of the scale examined through Pearson correlation analysis was.98, and the correlation values of its sub-dimensions were .98 for searching for knowledge, .99 for expression of emotion, .97 seeking assistance, .94 for control over external factors, .97 for coping practices, and .87 for self-control being.

Table 4. *The ADSCS item – factor loadings*

Factor	Item	Load	Factor	Item	Load
Searching for knowledge	m1	.80	Coping practices	m22	.51
	m2	.80		m23	.48
	m3	.79		m24	.25
	m4	.76		m25	.42
Expression of emotions	m5	.45		m26	.50
	m6	.67		m27	.46
	m7	.66		m28	.64
	m8	.63		m29	.53
	m9	.72		m30	.64
	m10	.75		m31	.62
Seeking assistance	m11	.81		m32	.68
	m12	.75		m33	.50
	m13	.58		m34	.45
	m14	.61		m35	.77
Control over external factors	m15	.47	Self-control being	m36	.51
	m16	.26		m37	.92
	m17	.44		m38	.81
	m18	.45		m39	.60
	m19	.64		m40	.37
	m20	.55			
	m21	.68			

Table 5. *The ADSCS reliability coefficients and average values (N=1041)*

Factors	Cronbach Alfa	Stratified Alpha	Item – Total Correlations	Mean	Ss
Coping practices	.77		.20 to .52	50.45	13.13
Seeking assistance	.72		.47 to .60	11.45	5.43
Control over external factors	.65		.26 to .42	24.55	7.63
Self-control being	.71		.31 to .64	17.41	6.60
Expression of emotions	.76		.33 to .58	22.18	7.36
Searching for knowledge	.76		.41 to .68	10.49	5.21
Total		.96		136.54	30.33

Stratified Alpha: Reliability test used in multidimensional scales.

4. DISCUSSION

In this study, data obtained from Turkish adolescent girls showed that the Turkish ADSCS is a valid and reliable tool. The scale can be used to evaluate dysmenorrhea self-care of young Turkish-speaking girls.

4.1. Discussion of confirmatory factor analysis results

In the CFA in this study, firstly, the six-factor theoretical structure (Model 1) in which items are related to primary level factors (externally oriented behavior and internally oriented behavior) was examined as suggested by Hsieh et al (19). When the Model 2, Model 3 and Model 4 results were evaluated later, it was determined that Model 1 had better coefficients of agreement and disagreement than Models 2 and 3. Kline (27) finds it sufficient to give Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA) and SRMR coefficients of agreement and disagreement in evaluating the relationships between model-based covariances and observed covariances. Hair et al. (28) suggest that chi-square value will be found statistically significant even if the models with more than 250 people and more than 30 items fit well, yet, they suggest it is sufficient for the CFI to be greater than .90, and SRMR is less than .08 and the RMSEA is less than .07. In addition, the chi-square / sd coefficient is desired to be 1-5. Accordingly, in our study, apart from chi-square / sd and SRMR, it is observed that the coefficients related to the theoretical model are close to the cut-off values recommended by Hair et al. (28). The high rate of chi-square / sd is related to the sample size of the study. Because chi-square is calculated with the chi-square = $(N - 1)*F_{min}$ formula. F_{min} (minimum fit function) is defined as the degree of discrepancy between the covariances (S) obtained from the model and the covariances (S) obtained from the data set. Due to this equation, no matter how small F_{min} is, chi-square statistics increase depending on the sample size as it is multiplied by the sample size. Since this analysis is based on data from 1041 people, the chi-square / sd coefficient was not taken into consideration in the evaluation of the models.

SRMR is defined as the standardized difference between the observed and predicted correlations (29). Marsh and Balla (30) state that SRMR is sensitive to sample size and therefore should not be used. Kenny (31) states that the SRMR coefficient is positively biased and this bias increases in small N and low sd studies. Also, Kenny (31) states that a model with high overall coefficient of agreement and parameter estimation might not be a valid, correctly defined model whereas a model with false marking, poor discriminant validity, or Heywood cases may have high coefficients of agreement. Crowley and Fan (32) state that evaluating goodness-of-fit does not have a golden rule, and since each reflects a different aspect of model fit, model fit should be evaluated based on a series of indexes. Based on this idea, since most of the indices show acceptable fit, the fit of the theoretical model is assumed high enough. The coefficient of agreement of the equivalent models is far behind the theoretical model.

4.2. Discussion of similarity and discriminant validity coefficient results

The similarity validity (do the items show a certain structure?) is examined depending on the standard regression weights >.50, the CR >.70 and the AVE >.50 for each factor. The discriminant validity (are the factors independent, separate features?) is evaluated with the square of the greatest structural covariances (MSV is MSV <AVE), the average of the common structural covariance squares (ASV, ASV <AVE) and the correlation of factor √AVE with other factors being greater than the absolute value of itself (33). In the study, it was determined that the item – factor loadings were mostly >.50. When the similarity validity results are examined, it can be suggested that the similarity validity is provided to a great extent for the dimensions of seeking assistance, self-control being, expression of emotions, and searching for knowledge. When the findings are examined in terms of discriminant validity, it is seen that the measurements obtained from the searching for knowledge and self-control being dimensions meet all the criteria. Although ASV values of all factors are smaller than AVE values, except for the control over external factors, the fact that the MSV values of the other dimensions (Coping practices, seeking assistance, control over external factors, and expression of emotions) are larger and that the correlation of √AVE with the other factors for each factor is less than the absolute value indicates that their discriminant validities are weak. Jöreskog (34) proposes three strategies for structural model applications: absolute and confirmatory, model development and model comparison. Within the scope of the scale adaptation study, this study adopted confirmatory and model comparison strategies. The confirmatory strategy analyzes the creation of a single model and the fit of the model to the data. The original structure is considered to be supported when the model produces results that fit the data. In this context, the original model is compatible with the data obtained from the Turkish sample. In comparison, the power of different models to explain the relationships between data on theoretical or conceptual basis is compared. In the study, the coefficients of the original model for divergent validity were low. Hair et al (35) stated that if a factor is better explained by items that do not belong to it, or if the factors are highly correlated, there will be a discriminant validity problem because when the factors are highly correlated, they share some of their predictive power in the items. The single factor model tried in the study is related to the issue of divergent validity. If the data contains the problems stated by Hair et al. (35) then the single factor model should explain the relationships between the data as good as the original model. Model comparison showed that the multi-factor model had better explanatory power than the single-factor model the relationships. At this stage, including the solution of factor or item deletion or creating composite variables from highly correlated ones to solve the problem of divergent validity, the model development strategy which starts with a certain model and involves experimenting until the most suitable model for the data and interpretation is obtained was not used. This is because model development is used to test hypotheses, results vary depending on the sample, and possibly have different non-theoretical factors than the original.

4.3. Discussing the reliability results

In order for a scale to be accepted as reliable, the Cronbach Alpha value generally accepted greater than .60, and as the value approaches 1, the reliability level of the scale increases (36). In the original study, the Cronbach alpha reliability coefficient was found .89 for the whole scale, and for the subscales resource utilization .73, seeking assistance .80, control over external factors .65, self – control being .62, expression of emotions .77, searching for knowledge .76 (19). In the study of Yeh et al. (37), the Cronbach alpha reliability coefficient was .90 and in the study of Wong et al. (38) .92. In this study, Cronbach alpha reliability coefficient was found .96 and for the subscales Cronbach alpha coefficient was determined, coping practices .77, seeking assistance .72, control over external factors .65, self – control being .71, expression of emotions .76, searching for knowledge .76. These results show that the reliability of the Turkish ADSCS is quite high and its sub-dimensions have sufficient reliability. Item-total correlations in the original scale ranges from .30 to .92 (19). In the result of our research, item total correlations are between .20 and .68. Clark and Watson (39) suggest that the mean of item – total correlations should be in the range of .15 to .20 for scales measuring large features and between .40 and .50 for narrower ones. Streiner and Norman (40) stated that it is acceptable to have item total correlations >.25 in a scale or sub-dimensions. In this framework, the item-total correlations of the Turkish ADSCS are sufficient (39).

The test-retest correlation value of >.40 to evaluate the temporal invariance of the score obtained from the scale is considered acceptable (40). In this study, the test-retest total correlation performed at two-week intervals was .98, and the reliability of the correlations of the sub-dimensions were remarkably high .87-.99.

4.4. Discussion of average scale scores

When the studies conducted with the ADSCS were analyzed, it was found that the total average score was 150.24 ± 30.94 and above in the study of Yeh et al. (37) and 124 ± 31.6 in the study of Wong et al. (38). In our study, the total score of the ADSCS was 136.54 ± 30.33, similar to the previous study results. Despite the differences in pain as a subjective expression, the variability of cultural characteristics and the number of universes used, it is thought that the similarity between the results of the study shows the effectiveness of the measurement tool. This similarity and the fact that the range of scores determined in the sample groups is above the mean score of the scale shows that adolescents living in different regions prefer self-care practices in the management of dysmenorrhea.

4.5. Implications for Practice

The Turkish ADSCS can be used to detect deficiencies by evaluating self-care skills for dysmenorrhea of Turkish-speaking adolescents and young people in Turkey and other countries. The effects of self-care improvement programs to be applied for adolescents with problems can be evaluated with the ADSCS. A valid and reliable pretest-posttest evaluation can be done with the ADSCS in interventional researches applied to increase dysmenorrhea self-care.

4.6. Study Limitations

This study has several limitations. The fact that the data is based on self-report and the recall of past self-care experiences may affect data quality. At the same time, the fact that the data is based on self-report may create a social acceptability bias in adolescents.

5. CONCLUSION

This research showed that the Turkish ADSCS is a valid and reliable tool and has six sub-dimensions consistent with the original scale. With this scale, self-care for dysmenorrhea can be evaluated in young girls, and adolescents with problematic or inadequate dysmenorrhea self-care behaviors can be identified and appropriate interventions can be made afterwards.

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Appendix

ADÖLESAN DİSMENORE ÖZBAKIM ÖLÇEĞİ

Alt Ölçek 1: Bilgi Arama	Hiç katılmıyorum (0)	%20 katılıyorum (1)	%40 katılıyorum (2)	%60 katılıyorum (3)	%80 katılıyorum (4)	%100 katılıyorum (5)
Adet ağrısını azaltmak amacıyla uygulanabilecek yöntemleri çevremdeki insanlara sorarım (örneğin: aileye, öğretmenlere, sınıf arkadaşlarına, sağlık çalışanlarına).						
Adet ağrısı ile ilgili televizyon haberleri, kitaplar veya dergilerle ilgilenirim.						
Kitap ve dergilerde adet ağrısı ile ilgili olan araştırma sonuçlarına ve makalelere bakarım.						
Adet ağrısı ile ilgili bilgi almak için interneti kullanırım.						
Alt Ölçek 2: Duyguların İfadesi						
Adet dönemlerimde hangi bölgelerimden rahatsız olabileceğimi net olarak bilirim.						
Adet ağrım olduğunda, suratım asılır ve kendimi iyi hissetmediğimi çevremdeki insanlara söylerim.						
Karnımı tutar ve kendimi iyi hissetmediğimi söylerim.						
Arkadaşlarıma adet dönemimdeki ağrı deneyimlerimi anlatırım.						
Aileme adet ağrısı çektiğimi söylerim.						
Adet ağrısı sorunumla ilgili çevremdeki insanlarla (örneğin: ailem, öğretmenlerim, sınıf arkadaşlarım, sağlık görevlileri) konuşurum.						
Alt Ölçek 3: Yardım Arama						
Adet ağrım olduğunda ailemden yardım isterim.						
Okulda adet dönemi ağrı sorunları yaşadığımda bunun üstesinden gelebilmek için arkadaşlarımdan yardım isterim. (Örneğin revire kadar bana eşlik etmesi gibi)						
Okulda adet dönemi ağrı sorunlarımın üstesinden gelebilmek için okul hemşiresinden yardım isterim (…okulda hemşire olsaydı yardım isterdim).						
Okulda adet dönemi ağrısorunlarımın üstesinden gelebilmek için öğretmenlerimden yardım isterim.						
Alt Ölçek 4: Dış faktörlerin kontrolü						
Adet ağrım olduğunda evdeysem, uyurum.						
Adet ağrım olduğunda, ağrıyı hafifletmek için müzik dinlerim.						
Adet ağrısı yaşadığımda dışarıda yapılan aktivitelere katılmaktan kaçınırım.						
Evdeyken adet ağrım olduğunda kendimi daha rahat hissetmek için odayı havalandırırım.						
Evdeyken adet ağrım olduğunda kendimi daha rahat hissetmek için odanın ısı derecesini ayarlarım.						
Adet ağrım okulda olduğunda beden eğitimi derslerine girmem.						
Adet ağrım olduğunda okuldan izin alarak evde dinlenirim.						
Alt Ölçek 5: Başetme uygulamaları						
Adet ağrım olduğunda rahat kıyafetler giyerim. (Örneğin; rahat tişört veya pantolon)						
Adet ağrım olduğunda daha çok ılık su içerim.						
Adet ağrım olduğunda daha çok çikolata veya tatlı yiyecekler yerim.						
Adet ağrım olduğunda yoğun egzersiz yapmaktan kaçınırım.						
Adet ağrım olduğunda sıcak suyla duş alırım.						
Adet ağrım olduğunda soğuk, buzlu yiyecekler yemem.						
Adet ağrım olduğunda ağrıyan bölgeye masaj yaparım.						
Adet ağrım olduğunda ağrıyan bölgeye vurur veya hafifçe sıvazlarım.						
Adet ağrım olduğunda sıcak tutacak giysiler giyerim.						
Adet ağrım olduğunda karnımın alt kısmına sıcak su torbası veya diğer ısıtıcı cihazları koyarım.						
Adet ağrım olduğunda ağrı kesici ilaçlar kullanırım.						
Adet ağrım olduğunda bitkisel ilaçlar kullanırım.						
Adet ağrımın üstesinden gelebilmek için akupunktur* noktalarına masaj uygularım.						
Adet ağrısı yaşadığımda eczaneden ağrı kesici ilaçlar satın alırım.						
Alt Ölçek 6: Öz Kontrol						
Adet ağrım olduğunda bir şey yapmam geçene kadar dayanmaya çalışırım.						
Adet ağrım olduğunda kendi kendime bunun normal olduğunu söylerim.						
Adet ağrım olduğunda kendi kendime bunun hayatın gerçeği olduğunu söylerim.						
Adet ağrım olduğunda kendi kendime çok fazla ağrım olmadığını söylerim.						
Adet ağrım olduğunda bir şeylerle meşgul olmaya çalışırım.						