

## Arastırma Makalesi

**Examination of Psychometric Properties of the Turkish Version of The Eating Disorders Diagnostic Scale-DSM5 (EDDS)**Bengi DÜŞGÖR\*<sup>1</sup>, Duygu KARAER<sup>2</sup><sup>1</sup> İstanbul University, Faculty of Letters, Psychology Department, İstanbul, Turkey<sup>2</sup> Mona Gelişim, İstanbul, Turkey**Makale Bilgisi****Keywords:**Eating Disorders  
Diagnostic Scale-  
DSM-5 Version,  
eating disorders,  
adaptation.**Abstract**

This study aimed to adapt the Eating Disorder Diagnostic Scale-DSM 5 Version (EDDS-DSM-5) as a diagnostic and statistical tool in the Turkish population and to examine its validity and reliability. After the translation procedures were completed, a demographic form, EDDS-DSM-5, and The Eating Disorder Examination Questionnaire (EDE-Q) were administered to participants (i.e., 237 females, 84 males, and 4 non-binary). Internal reliability, test-retest reliability, concurrent validity, and factor structure of EDDS were examined. EDDS had four factors: (1) Body Concern (BC), (2) Binge Eating (BE), (3) Self-induced Compensatory Behaviors (SICB), and (4) Overeating Concern (OC), explaining the variance ranging from 8-20%. The internal reliability of the scale ( $\alpha = .85$ ) and the test-retest reliability (ICC: .97 [.93 – .98]) were found to be satisfactory. In terms of concurrent validity, the results of correlational analysis between EDDS symptom composite scores and EDE-Q total scores indicated a significant correlation ( $r = .61, p < .001$ ). EDDS is a reliable and valid instrument for the Turkish sample. The current data highlighted the importance of generating additional tools which combine self-report measures with clinical observations for evaluating more complex and emotional dimensions of eating disorders other than concrete indicators.

**Öz****Anahtar  
kelimeler:**Yeme Bozuklukları  
Tanı Ölçeği-DSM-5  
Versiyonu,  
yeme bozuklukları,  
adaptasyon

Bu çalışmanın amacı, EDDS-DSM-5 versiyonunun tanıs ve istatistiksel bir araç olarak Türk toplumuna uyarlanması ve geçerlik ve güvenilirlik açısından incelenmesidir. Çeviri işlemleri tamamlandıktan sonra katılımcılara (237 kadın, 84 erkek ve 4 non-binary) demografik form, Yeme Bozukluğu Tanı Ölçeği-DSM-5 Versiyonu (EDDS) ve Yeme Bozukluğu İnceleme Anketi (EDE-Q) uygulanmıştır. EDDS'nin iç güvenilirliği, test tekrar test güvenilirliği, uyum geçerliliği ve faktör yapısı incelenmiştir. EDDS'nin %8-20 arasında değişen oranlarda varyansı açıklayan dört faktörü olduğu saptanmıştır; (1) Beden Kaygısı, (2) Tıkınırcasına Yeme, (3) Kendinden Kaynaklı Telafi Edici Davranışlar ve (4) Aşırı Yeme Kaygısı. Ölçeğin iç güvenilirliği ( $\alpha = .85$ ) ve test-tekrar test güvenilirliği (ICC: .97 [.93 – .98]) yeterli bulunmuştur. Uyum geçerliliği açısından, EDDS semptom bileşik puanları ile EDE-Q toplam puanları arasındaki korelasyonel analiz sonuçları, anlamlı bir korelasyon göstermiştir ( $r = .61, p < .001$ ). Bulgular, EDDS'nin Türk örneklemini için güvenilir ve geçerli bir araç olduğunu göstermektedir. Mevcut sonuçlar, yeme bozukluklarının somut göstergelerinin ötesinde daha karmaşık ve duygusal boyutlarını değerlendirmek üzere bu öz-bildirim ölçeğini klinik gözlemlerle birleştiren ek araçlar üretmenin önemine işaret etmektedir.

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## **Introduction**

Today, it is known that the most common psychiatric disorders afflicting young women are eating disorders (ED) which are known as anorexia nervosa, bulimia nervosa, and eating disorders not otherwise specified (Pritts & Susman, 2003). They are defined as a persistent and distorted view of one's body and subsequent behaviors performed to relieve the psychological turmoil resulting from this faulty self-perception (Cook, 2006). Eating disorders (ED) are psychiatric disorders that have a very long history dating back to ancient times. Yet, today with the societal pressure about being thin as a "beauty" norm, young women are especially at risk of developing these disorders. Every system is affected by eating disorders. The process, which starts with the desire to have a thin body and a psychological mechanism, causes serious damage to the body. The conflict and disharmony of the psyche and the soma resulted in the battering of the body (Yücel, 2009).

According to Solmi (2014), EDs are also understood as a complex and heterogeneous group of diseases, described by a set of physical and psychological symptoms, which often overlap with other current diagnoses (Wildes & Marcus, 2013). Cognitions such as great preoccupation with thoughts about food, weight, and shape as well as behaviors such as dieting, fasting, excessive exercise, bingeing and purging, and physical correlates such as low Body Mass Index (BMI) and amenorrhea are prominent features of people suffering from EDs (Solmi, 2014). A large number of individuals at risk for eating disorders and the serious health consequences experienced throughout the entire spectrum of development, emphasize the necessity to develop and apply preventive interventions. Eating disorder prevention has recently gained great importance, through the use of the mass media, several prevention strategies can be implemented with the goals of boosting self-esteem, imparting coping mechanisms, and encouraging positive beliefs about the importance of the individual in relation to the environment. Besides these communal approaches, focus on individual therapeutic interventions and providing psychoeducation with the inclusion of family members became widespread (Cook, 2006; Nasser, 2009).

There are three qualitatively different types of eating disorders that are distinguishable on the basis of the following criteria in the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV; American Psychiatric Association, 1994): (1) anorexia nervosa (AN), (2) bulimia nervosa (BN), and (3) binge eating disorder (BED) (Krabbenborg et al., 2011).

The prevalence of these disorders, which ranges between 3 and 10% for young women regarded as at risk due to their age (between 15 and 29 years old), underlies the interest in diagnostic and therapeutic mechanisms for eating disorders (Polivy & Herman, 2002). In

Turkey, both the prevalence of eating-disordered patients and the number of studies in this field of psychopathology have been increasing (Yücel, 2009). The prevalence of ED in Turkey ranges from 2.33% to 18%, according to data primarily drawn from sample groups of adolescents and young adults. Although the prevalence of anorexia nervosa was lower and binge eating disorder was more prevalent than ED, the results were found to be comparable to rates in Western countries (Çam, 2017; Semiz et al., 2013; Vardar & Erzenin, 2011). This condition is also making it necessary to create new diagnostic tools and validate the tools that are being used in other countries.

The Eating Disorder Diagnostic Scale-DSM-5 Version (EDDS) (Stice et al., 2000) is a brief self-report scale consisting of 22 items measuring AN, BN, and BED, and eating pathology. Since its introduction, the EDDS has been translated and used in several other countries (e.g., Portugal, Hong Kong) (Jackson & Chen, 2007; Lee et al., 2007; Thorsteinsdottir & Ulfarsdottir, 2008). The advantage of the EDDS is its brevity since its administration takes only a few minutes and it can be completed without assistance which also makes it cost-effective. The EDDS is suitable for frequent measurements of eating pathology (e.g., routine outcome monitoring) and can be applied to a large number of participants simultaneously. Research in non-clinical sample studies has provided evidence of the reliability and validity of the EDDS (Krabbenborg et al., 2011). Stice et al. (2000, 2004) showed good test-retest reliability (mean  $k = .80$ ), content validity, and criterion validity (mean  $k = .83$ ). In terms of predictive validity, EDDS accurately predicted participants' responses to a preventative program as well as the incidence of eating disorders and depression in the future. Moreover, the symptom composite score showed good internal consistency (mean  $\alpha = .89$ ), test-retest reliability ( $r = .87$ ), and convergent validity with other eating pathology scales (Krabbenborg et al., 2011).

The present study aimed to adapt another test that can be used in Turkey as a diagnostic tool while examining and evaluating the relevance and frequency of eating disorders in the community. To this aim, the reliability and validity analyses of the EDDS-DSM-5 version were performed to use EDDS as a diagnostic and statistical tool in evaluating eating disorders in Turkey.

## Method

### Participants

All of the participants who volunteered to participate in the study were aged between 14 to 33 years old ( $M = 24.77$ ,  $SD = 5.52$ ). There was a total of 325 participants; 237 of them were females, 84 of them were males and 4 of them were non-binary. The samples were

randomly selected through an online survey. Most of the participants ( $n = 245$ , 75.4%) had a college-level education, 15.7% of them had a graduate-level education and the rest ( $n = 29$ , 8.9%) had below college-level education. The income levels of the participants were as follows: 75 (23.1%) low income, 237 (72.9%) middle income, and 13 (4%) high income. Body mass index (BMI; kg/m<sup>2</sup>) ranged from 15.43 to 48.44 with a mean of 23.09 ( $SD = 4.79$ ). The majority of the participants were omnivores ( $n = 281$ , 86.5%), 29 of them were vegan (8.9%) and 15 of them were vegetarian (4.6%). The consent of the participants was also obtained through the online form.

## Measures

**Demographic Form.** The demographic form included questions related to birth year, gender, educational status, job status, level of income, diet, chronic diseases, drug use, and psychological disorders.

**Eating Disorder Diagnostic Scale-DSM-5 Version (EDDS).** The EDDS is a brief self-report scale for diagnosing anorexia, bulimia nervosa, and binge eating disorders. It contains 22 items that assess DSM-IV symptoms for these three eating disorders (Stice et al., 2004). In the DSM-5 version of EDDS, items related to binge eating were comprising symptoms during the past 3 months (previously it was 6 months), the wording of several items was changed, and 2 items regarding overeating at night and the societal aspect of overeating were added.

The items were rated on a 7-point Likert-type scale (0: None to 6: Extremely), a binary scale (Yes or No), selected numbers that go from 0 to 16+, and open responses (weight and height). An overall eating disorder symptom score is computed by standardizing and summing up the scores of all items. Higher scores suggest higher psychopathology in eating disorders (Santos et al., 2018).

In terms of psychometric properties, EDDS has been shown to have excellent reliability ( $\alpha = 0.91$ ) for the entire sample total scores. Criterion validity based on the agreement between the diagnosis and EDDS ranged from .75 to .93 for subscales. The correlation between EDDS and the Eating Disorder Examination as a related measure was .82 (Stice et al., 2004). EDDS is a theoretically derived measure based on the DSM criteria for eating disorders for diagnostic purposes. Factor structure was not analyzed in the original study.

**The Eating Disorder Examination Questionnaire (EDE-Q).** EDE-Q is a 41-item scale developed by Fairburn and Beglin (1994). The scale was derived from the Eating Disorder Examination Interview (EDE) by Fairburn and Cooper (1993). Besides being parallel to EDE interview in terms of the content, EDE-Q is a self-report scale. The scale consists of

four factors: Restraint, Eating Concern, Shape Concern, and Weight Concern. The Turkish validity and reliability study was performed by Yücel et al. (2011). The reliability of EDE-Q was found to be excellent (.93) for the total scale, and adequate for all subscales (.70 or above), except for the binge eating subscale, which was .63.

**Body Mass Index (BMI).** Body mass index is calculated by dividing the person's weight by the square of his/her height. The result shows whether the weight is proportional to the height or not. International Classification of Diseases (ICD) considers these reference ranges of the World Health Organization (1992) as one of the diagnostic criteria for eating disorders: anorexic (BMI < 17.50), underweight (BMI = 17.51-18.50), subnormal (BMI = 18.51-20.00), normal (BMI = 20.01-25.00), overweight (BMI = 25.01-30.00), and obese (BMI > 30.01).

## **Procedure**

During the translation phase, a clinical psychologist first translated the original form into Turkish. Then, a translator who is fluent in English carried out the back translation process. The data collection process took place on an online platform. The study was based on voluntariness, and the participants were informed by a consent form stating that the study's objective was to evaluate young adults' eating behaviors. Three forms were administered: a demographic form, the EDDS, and the EDE-Q. Also, the ethical consent of the İstanbul University Ethics Committee was obtained before the onset of data collection. After collecting the data, the test-retest stage took place. Test-retest data was collected from 27 participants. Two weeks after the initial administration, participants completed the EDDS again.

## **Statistical Analyses**

All statistical analyses were completed through the IBM SPSS Statistics, Version 24. Initially, data screening and normality checks were carried out. Data were nonnormally distributed; therefore, nonparametric tests Kruskal-Wallis and Mann-Whitney U were used in order to measure gender differences and Body Mass Index group differences, respectively.

Exploratory factor analysis (EFA) with varimax rotation was conducted with a full sample for examining the factor structure of the Turkish form of EDDS. EFA is one of the most recommended techniques for exploring the factor structure of a scale and reducing the data into fewer dimensions (Geisinger & McCormick, 2013; Jolliffe & Cadima, 2016). To determine the best factor structure, Eigenvalues greater than 1 and a factor loading equal to or greater than .4 as well as the scree plot were examined (Tabachnick & Fidell, 2007).

Cronbach's alpha was used to assess the internal consistency of EDDS and all of the four factors. Cronbach alpha values of over .70 are generally accepted in terms of the reliability of the scale (Cortina, 1993).

Test-retest reliability was analyzed using intraclass correlation (ICC), which is a widely used index for assessing the degree of correlation and agreement between measurements (Perinetti, 2018). Furthermore, Wilcoxon signed-rank test was used to determine if there were significant differences between the first and second administrations.

The concurrent validity of the EDDS was calculated using Pearson's product-moment correlations with EDE-Q as another relevant and widely accepted measure of eating disorders.

## Results

### Group Differences

Mann-Whitney U-tests revealed significant gender differences on the EDDS symptom composite scores. Female participants reported higher scores compared to male participants (Table 1). Kruskal–Wallis analysis was conducted to examine the differences on EDDS symptom composite scores according to the categories of BMI. Significant differences were observed between BMI categories and mean scores of the EDDS symptom composite (Table 1).

Table 1.

*Group differences based on gender and BMI categories*

Mann Whitney U Test					
Variables	<i>N</i>	<i>Mean Rank</i>	<i>Sum of Ranks</i>	<i>Mann-Whitney U</i>	<i>p</i>
Women	237	170.84	40490.00	7621.00	.001
Men	84	133.23	11191.00		
Total	321				
Kruskal-Wallis Test					
Variables	<i>N</i>	<i>Mean Rank</i>	$\chi^2$	<i>df</i>	<i>p</i>
Anorexic	11	126.09	85.543	5	.000
Underweight	22	87.02			
Subnormal	60	123.58			
Normal	146	150.26			
Overweight	54	221.42			
Obese	32	261.36			
Total	325				

## Factor Structure of EDDS

In an initial attempt to explore the factor structure for the Turkish form of EDDS, all items were analyzed with varimax rotation. The overall Kaiser-Meyer-Olkin measure of sampling adequacy was .87. Bartlett's test for sphericity produced a significant result ( $p < .001$ ), indicating that the variables were correlated with one another. The results confirmed the appropriateness of exploratory factor analysis for the data (Howard, 2016). The scree plot indicated that the EDDS had four factors with eigenvalues higher than 1. The percentage variances explained by rotated factor matrices ranged from 8-20% per factor, with four factors explaining 53% of the overall variance. Percentages refer to the variance explained by each factor are as follows: Body Concern (BC) 20.15%, Binge Eating (BE) 16.02%, Self-induced Compensatory Behaviors (SICB) 9.49%, and Overeating Concern (OC) 7.70%. The factor structure of the rotated four-factor model of the EDDS was presented Table 2.

Table 2.

*Pattern Matrix of EFA Analysis of EDDS Items (N = 325)*

Items	F1: Body Concern	F2: Binge Eating	F3: Self-induced Compensatory Behaviors	F4: Overeating Concern
EDDS 1	<b>.816</b>	.150	.042	.142
EDDS 2	<b>.783</b>	.225	.066	.229
EDDS 3	<b>.738</b>	.136	.104	.164
EDDS 18	<b>.682</b>	.214	.270	.100
EDDS 11	<b>.639</b>	.417	.028	-.099
EDDS 12	<b>.575</b>	.296	.087	-.146
EDDS 4	.014	<b>.674</b>	.039	.257
EDDS 5	.301	<b>.641</b>	-.128	.102
EDDS 6	.286	<b>.620</b>	.158	.288
EDDS 9	.250	<b>.579</b>	.062	.104
EDDS 7	.149	<b>.573</b>	.012	-.234
EDDS 8	.217	<b>.518</b>	.026	-.140
EDDS 10	.372	<b>.421</b>	.282	.094
EDDS 13	.107	.108	<b>.834</b>	.025
EDDS 14	.177	-.011	<b>.794</b>	-.105
EDDS 15	.021	-.029	-.102	<b>.695</b>
EDDS 16	.333	.081	.049	<b>.578</b>
EDDS 17	.021	.308	.380	<b>.405</b>
Eigenvalue	5.57	1.56	1.26	1.20

## Reliability Analyses

**Internal Consistency.** Cronbach's alpha for the symptom composite scores was .85 in the full sample. For EDDS factors, internal consistency was good for body concern ( $\alpha = .86$ ) and binge eating ( $\alpha = .75$ ), while it was satisfactory for self-induced compensatory behaviors ( $\alpha = .67$ ). Cronbach's alpha for overeating concern was not satisfactory ( $\alpha = .35$ ). Item-total correlations regarding the factors indicated moderate to good homogeneity: .31 to .77 for body concern, .20 to .47 for binge eating, .50 for self-induced compensatory behaviors. Items in the overeating concern factor (items 15, 16, and 17) revealed a lower correlation than expected.

**Test-Retest Reliability.** The results of the ICC between the symptom composite scores at the first and second administration indicated that the EDDS had excellent test-retest reliability (ICC: .97 [.93–.98]). Additionally, the difference in the mean scores of the EDDS over a two-week period was not statistically significant,  $z = -.10$ ,  $p = .91$ .

## Validity Analyses

**Concurrent Validity.** The results of correlational analysis between EDDS symptom composite scores and EDE-Q total scores indicated a significant correlation ( $r = .61$ ,  $p < .001$ ) (Table 3). EDE-Q subscales and EDDS factors had moderate to strong positive correlations. The body concern factor of EDDS was strongly and positively correlated with shape concern ( $r = .87$ ) and weight concern ( $r = .82$ ) subscales of EDE-Q ( $p < .001$ ). All of the other EDDS factors were positively correlated with EDE-Q subscales and total scores to a slight to moderate degree ( $p < .001$ ) (Table 3).



Table 3.

*Pearson Product-Moment Correlations of EDDS symptom composite scores, EDDS factors, EDE-Q subscales and EDE-Q total scores*

Variable	1	2	3	4	5	6	7	8	9	10
1. EDDS total	-									
2. EDDS S BC	.70*	-								
3. EDDS S BE	.49*	.62*	-							
4. EDDS S ICB	.22*	.26*	.17*	-						
5. EDDS S OC	.30*	.33*	.31*	.12*	-					
6. EDE -Q total	.61*	.84*	.58*	.33*	.40*	-				
7. EDE -Q R	.42*	.62*	.40*	.27*	.35*	.84*	-			
8. EDE -Q EC	.49*	.69*	.58*	.34*	.36*	.87*	.64*	-		
9. EDE -Q SC	.65*	.87*	.58*	.27*	.35*	.93*	.66*	.75*	-	
10. EDE -Q WC	.62*	.82*	.55*	.30*	.33*	.91*	.66*	.77*	.91*	-

Note. \*\* indicates  $p < .001$ . The Eating Disorder Diagnostic Scale (EDDS), Body Concern (BC), Binge Eating (BE), Self-induced Compensatory Behaviors (SICB), Overeating Concern (OC), The Eating Disorder Examination Questionnaire (EDE-Q), Restraint (R), Eating Concern (EC), Shape Concern (SC), and Weight Concern (WC)

## **Discussion**

The initial object of this study was to analyze psychometric properties of EDDS in a Turkish sample. For the purpose of the adaptation of the scale; translation procedure, factor analysis as well as reliability and validity analyses were conducted. In addition, group differences based on gender and BMI categories were examined. In accordance with the previous studies, the results of the present study showed that the prevalence of eating disorders is higher in women compared to men in our population as well (American Psychiatric Association, 2013; Lewinsohn et al., 2002; Striegel-Moore et al., 2009).

The current study has found that most of the participants in the ‘obese’ subcategory of BMI scored higher in the EDDS, compared to the participants in other subcategories. These results support those of Duncan et al.’s (2017) study, who conducted a large-scale prevalence study on eating disorders and also found that binge eating disorder and recurrent binge eating were highest among obese individuals.

The EDDS showed excellent internal reliability for total symptom composite scores. For item groupings obtained from the EFA, internal consistency was satisfactory to good. The body concern dimension was found to be the most reliable. The test-retest reliability, with a note of caution due here since the sample size was limited, with a two-week interval was found to be high. Using the intraclass correlation coefficients test, symptom composite scores achieved a high correlation, indicating that the measure produces constant results from participants over time.

In an initial attempt to explore concurrent validity, the relationship between EDDS and EDE-Q was examined. EDDS symptom composite scores, EDE-Q subscales, and EDE-Q total scores all indicated significant positive correlations. The shape concern dimension of EDE-Q was the most similar measure to EDDS.

As Stice and his colleagues (2004) stated, one of the limitations of their study is that the factor structure of EDDS scale could not be examined. For future studies, it was recommended to determine whether reliable subscales can be extracted from this measure, which corresponds to the three eating disorders expressed in DSM-IV, by performing factor analysis. Stice et al. (2004) emphasized that factor analysis would not only provide information about the factor structure of the EDDS but also give insight into more precise factor-score combinations. Our study is an introduction to contribute to the literature in this sense with a Turkish sample.

In the current study, factor structure was partially in accordance with the previous studies, although the item loadings proposed different levels of variance. The results of the factor analysis revealed that the Turkish form of EDDS has four factors, namely body concern

(BC), binge eating (BE), self-induced compensatory behaviors (SICB), and overeating concern (OC). BC consists of items that were related to societal and emotional aspects of eating disorders, whereas BE was shown precisely to assess the content and frequency of binge eating behaviors. The third factor SICB has only two items that indicate self-induced efforts of the individual to compensate for the binge eating episodes; and the final factor OC represents the degree of stress emerging after the meals, especially which are perceived as overeating. Self-induced compensatory behaviors were critical that it depicts a more pathological aspect of the eating disorders. Yong and Pearce (2013) noted that two-item scales are considered reliable when the variables are highly correlated with each other ( $r > .70$ ), but fairly uncorrelated with other variables which is in accordance with our results. Therefore, we decided to preserve the two-item structure.

Retaining a factor with two items also needs a solid background that can explain the relationship between the variables. Comparison of these findings with those of other studies confirms that the nature of compensatory behaviors such as vomiting, laxatives and/or diuretics are in contrast with other bulimic symptoms. Pinheiro et al. (2008) investigated the clusters of bulimic symptoms and established a “purging class” characterized by infrequent binge eating, but frequent compensatory behaviors. Previous studies investigating the abuse of laxatives and/or self-vomiting noted that these symptoms are more severe and pernicious (Bryant-Waugh et al., 2006), and related with several personality traits such as an inability to tolerate the sensations of having food in the stomach, the impulsive need to remove it immediately and low self-directedness (Reba et al., 2005). These results supported the fact that vomiting and laxative use are specifically based on evacuating the perceived excessiveness out of the body; therefore, it was decided that preserving the factor with two items is necessary for measuring the construct. Further studies using this instrument are needed in the Turkish population, including confirmatory factor analyses to examine gender and cultural invariance of the structure.

Although there are adaptation studies that find similar factor structures to some extent, there exists considerable differences across different cultures. For example, Santos and colleagues (2018) found three dimensions: body and weight concerns, binge eating behavior and compensatory behaviors with the Portugal sample. In their study, compensatory behavior dimension involves vomiting, using laxatives, skipping meals, and intense exercise. Lee and colleagues (2007) found four dimensions, which were body dissatisfaction, bingeing behaviors, bingeing frequency, and frequency of compensatory behaviors. Although the four-factor structure was parallel with our study, remarkable differences were observed in terms of the contents of the factors. In the Hong Kong adaptation of EDDS, binge eating items were divided

into two separate factors, as opposed to Portugal adaptation which reported bingeing behaviors and bingeing frequency corresponds to the same construct as one (Santos et al., 2018).

The literature points out that cultural differences were more common in the past, and with globalization, eating disorders are no longer unique to Western cultures (Nasser, 2009). Nevertheless, the fact that the definitions of some concepts differ between cultures may create incompatibility in self-measurement tools such as EDDS-5. A study conducted by Lau et al. (2006), concluded that the criteria set for binge eating may vary according to lifestyle habits across cultures. Chinese-born participants living in Hong Kong do not currently exercise intensely enough to meet the universally well accepted Oxford definition of excessive exercise, as opposed to Chinese participants living in United States. There are additional findings concerning the fasting habits from a cultural perspective. Fasting in Ramadan was found to be significantly related to restricting food intake than non-fasting and experienced the significantly greater temptation to eat unhealthily than their non-fasting counterparts (Chia et al., 2018; Sadeghirad et al., 2014). Accordingly, the present results raise the possibility that fasting behavior, which is an important part of the religious culture in Turkey, had an impact on responses to Overeating Concern items by intertwining with the symptoms of binge eating and fasting as a counterbalancing behavior against binge eating.

Although these results can be evaluated as accountable and in accordance with the literature, the current study has notable limitations. It is critical to remark that the data collection phase of this study coincided with the COVID-19 pandemic. Concordantly, it should be considered that lockdown conditions might have influenced people's eating attitudes (Baceviciene & Jankauskiene, 2021) and gathering sufficient amount of data was limited by the extraordinary circumstances of that period. The second limitation concerns the poor reliability of the Overeating Concern subscale (.35). The number of items has a significant impact on Cronbach alpha values (Cronbach, 1951) and the fact that there are only three items in this subscale might be related with the unsatisfactory reliability. These data must be interpreted with caution because of the limited background about the original factor structure of the scale because EDDS is a theoretically constructed measure that maps onto the DSM. It also suggests that the factor structure represents diagnostic symptom domains, and as such might be reflected in factor analyses across different populations. It was concluded that the EDDS-5 Turkish version is a reliable and valid tool for categorical measurement of eating disorders using the symptom composite scores suggested by Stice et al. (2000). On contrary, it has been observed that caution should be exercised in evaluating the risk of eating disorders in the population when looking at subclinical symptoms or using subscales.

Future studies on the current topic are therefore recommended on two major aspects. It might be useful to work on generating additional tools which combine this self-report measure with clinical observations, specifically while measuring more complex and emotional features of eating disorders, while self-report techniques were found to underestimate the severity of the disturbance (Fairburn & Beglin, 1994). Besides, further research should be undertaken to make a detailed investigation on the factor structure of EDDS-5 across clinical and non-clinical Turkish samples.

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**Araştırmacıların Katkı Oranı Beyanı:**

Yazarlar eşit oranda katkıda bulunmuştur.

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Yazarlar herhangi bir çıkar çatışması bulunmadığını beyan etmiştir.

**Yazar Notu:**

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## Yeme Bozuklukları Tanı Ölçeği-DSM 5 (EDDS-DSM5)'in Türkçe Formunun Psikometrik Özelliklerinin İncelenmesi

### Özet

Özellikle kadın popülasyonunda görülen en yaygın psikiyatrik bozukluk gruplarından biri olan yeme bozuklukları (anoreksiya nervoza, bulimiya nervoza, tıknırcasına yeme bozukluğu), kişinin kendi bedenine yönelik sürekli ve çarpık benlik algısından kaynaklanan psikolojik kargaşayı gidermeye yönelik ortaya konulan davranışlarla karakterizedir (Cook, 2006). Solmi'ye göre (2014) yeme bozuklukları, bir dizi fiziksel ve psikolojik semptomun bir arada görüldüğü heterojen bir hastalık grubu olarak tanımlanmıştır. Yeme bozukluğu başlığı altındaki alt kategorilerde, diyet, oruç tutma, aşırı egzersiz, aşırı yemek yeme ve kusma gibi davranışlar, gıdalar, vücut ağırlığı ve şekli hakkındaki düşüncelerle yoğun meşguliyet, düşük Vücut Kitle İndeksi (BMI) ve amenore gibi fiziksel belirtiler bir arada gözlenebilir. EDDS-DSM-5, bu belirtileri kapsayıcı bir biçimde ele alan ve anoreksiya nervoza, bulimiya nervoza ve tıknırcasına yeme bozukluğunu ölçmeyi amaçlayan bütüncül bir ölçek olarak oluşturulmuştur (Stice ve diğerleri, 2000).

Bu çalışmanın amacı, EDDS-DSM-5 versiyonunun Türk popülasyonu için tanısallık ve istatistiksel bir araç olarak psikometrik incelemesini yapmaktır. Bu kapsamda, EDDS-DSM-5 versiyonunun Türkçe formunun faktör yapısının incelenmesi ve güvenilirlik, geçerliğinin değerlendirilmesi hedeflenmiştir.

Örneklem, 237'si kadın, 84'ü erkek ve 4'ü non-binary olmak üzere toplam 325 katılımcıdan oluşmaktadır. Çeviri işlemleri tamamlandıktan sonra demografik form, Yeme Bozukluğu Tanı Ölçeği-DSM-5 Versiyonu (EDDS), Yeme Bozukluğu İnceleme Anketi (EDE-Q) uygulanmıştır. Cinsiyet ve beden kitle indeksi farklılıkları, iç güvenilirlik, test-tekrar test güvenilirliği ve uyum geçerliği incelenmiştir. Test-tekrar test güvenilirliğini ölçmek üzere gönüllü olan bir grup katılımcıya ( $N = 27$ ) ilk uygulamadan iki hafta sonra tekrar ölçek verilmiştir. EDDS'nin faktör yapısını incelemek için temel bileşen analizi yapılmıştır. EDDS'nin %8-20 arasında değişen oranlarda varyansı açıklayan dört faktörü olduğu saptanmıştır: beden kaygısı, tıknırcasına yeme, kendinden kaynaklı telafi edici davranışlar ve aşırı yeme kaygısı. Ölçeğin iç güvenilirliği ( $\alpha = .85$ ) ve test-tekrar test güvenilirliği (ICC: .97 [.93-.98]) iyi bulunmuştur. Faktör analizinden elde edilen alt ölçeklerin güvenilirlik değerleri şu şekildedir: beden kaygısı ( $\alpha = .86$ ), tıknırcasına yeme ( $\alpha = .75$ ), kendinden kaynaklı telafi davranışları ( $\alpha = .67$ ) ve aşırı yeme endişesi ( $\alpha = .35$ ). Uyum geçerliliği açısından, EDDS semptom bileşik puanları ile EDE-Q toplam puanları arasındaki korelasyonel analiz sonuçları, anlamlı bir korelasyon göstermiştir ( $r = .61, p < .001$ ).

EDDS-DSM-5 Türkçe formunun faktör yapısının önceki çalışmalarla kısmen uyumlu olduğu söylenebilir. Faktör analizinin sonuçları; beden kaygısı (BK), tıknırcasına yeme (TY), kendinden kaynaklı telafi davranışları (KKTD) ve aşırı yeme endişesi (AYE) boyutları olmak üzere dört faktöre sahip olduğunu ortaya koymuştur. BK, yeme bozukluklarının toplumsal ve duygusal yönleriyle ilgili maddelerden oluşmaktadır. TY, tıknırcasına yeme davranışlarının içeriğini ve sıklığını değerlendirmektedir. AYE boyutu, özellikle aşırı yeme olarak algılanan, yemeklerden sonra ortaya çıkan stresin derecesini temsil etmektedir. KKTD'nin ise bireyin tıknırcasına yeme epizodlarını telafi etmek için kendi kendine ortaya koyduğu yoğun çabaları gösterdiği ve yalnızca iki maddesinin olduğu gözlenmiştir. Literatüre göre, iki maddeli bir alt faktör, maddeler birbirleriyle yüksek düzeyde ilişkili olduğunda ( $r > .70$ ) ve ancak diğer değişkenlerle oldukça ilişkisiz olduğunda güvenilir kabul edilebilmektedir (Yong ve Pearce, 2013). Bu çalışmadan elde edilen madde korelasyon analizi sonuçları ve kendi kendine tetiklenen telafi edici davranışların, yeme bozukluklarının daha patolojik bir yönünü göstermesi açısından kritik olması göz önüne alınarak KKTD faktörünün iki maddeli haliyle korunması uygun görülmüştür. EDDS-DSM-5 Türkçe formunun diğer ülkelerde yapılan uyarlama çalışmalarıyla ayrışan yönlerini, özellikle tıknırcasına yeme faktörünün kültüre bağlı boyutlarını incelemek için daha ayrıntılı çalışmalar yapmanın yararlı olacağı düşünülmektedir.

Bulgular, EDDS'nin Türk örnekleme için güvenilir ve geçerli bir araç olduğunu göstermektedir. Mevcut sonuçlar, yeme bozukluklarının somut göstergelerinin ötesinde daha karmaşık ve duygusal boyutlarını değerlendirmek üzere bu öz-bildirim ölçeğini klinik gözlemlerle birleştiren ek araçlar üretmenin önemine işaret etmektedir.