Osmangazi Journal of Med, 2025;47(6):914-922
DOI: 10.20515/otd.1537885

Research Article
Araştırma Makalesi

Osmangazi Journal of Medicine
e-ISSN: 2587-1579

The Turkish Adaptation of Sussex Misophonia Scale and A Short Form of the Scale

Sussex Mizofoni Ölçeği'nin Türkçe Geçerlik ve Güvenirlik Çalışması ve Ölçeğin Kısa Formu

Oğuzhan Herdi, Cumhur Avcil

Antalya Bilim University, Department of Psychology, Antalya, Türkiye

ORCID ID of the authors
OH. 0000-0003-0101-2663
CA. 0000-0001-9237-1201

Correspondence / Sorumlu yazar:
Oğuzhan HERDİ

Antalya Bilim University, Department of Psychology, Antalya, Türkiye

e-mail: oguzhan.herdi@antalya.edu.tr

Abstract: Misophonia is a neuropsychiatric disorder characterized by emotions, thoughts, behaviours toward certain sensory stimuli. Sussex Misophonia Scale (SMS) is one of the scales intending to measure misophonia. In this study we aimed to conduct Turkish adaptation of SMS and present a short form of the scale. We conducted a translation and back-translation process. The scale was applied to a subgroup of the sample. In line with feedback final version was distributed via online platforms. Reliability and validity analyses were conducted. Due to multi-loading of items, 19 items from Part II were eliminated. We defined this 19-itemed form as short form of the scale and same reliability, and validity analyses were conducted with this short form. SMS was reliable scale with .97 The Cronbach's Alpha value for Part 2. However, in EFA analysis, Kaiser-Meyer-Olkin analysis was conducted, resulting in value of .954. The Bartlett's Test of Sphericity yielded a value of $\chi 2$=8508.921and a p<.001. The short form demonstrated a Cronbach's Alpha value of .913. Both original and short form of the scale were clinically valid. The Turkish version of SMS was reliable and valid scale. We presented short form of Part II of the scale and this short form was also reliable and valid.
Keywords: Misophonia, Scale, Sussex

Ethics Committee Approval: The study was approved by the Non-invasive Clinical Research Ethics Committee of Antalya Bilim University **Date:** 2024/05 (Decision no: 17, Date: 11.01.2024).

Informed Consent: The authors declared that it was not considered necessary to get consent from the patients because the study was a retrospective data analysis.

Authorship Contributions: Conceptualization (OH, CA), Data Collection (OH, CA), Statistical analysis (OH), Writing (OH), Supervision (CA)

Copyright Transfer Form: The copyright transfer form was duly signed by all authors.

Conflict of Interest: No conflict of interest was declared by the authors.

Financial Disclosure: The authors declared that this study received no financial support.

Özet: Mizofoni, belirli duyusal uyaranlara yönelik duygu, düşünce ve davranışlarla karakterize nöropsikiyatrik bir bozukluktur. Sussex Mizofoni Ölçeği (SMÖ) mizofoni hastalığını ölçmeyi amaçlayan ölçeklerden biridir. Bu çalışmada SMÖ'nin Türkçe uyarlamasının yapılması ve ölçeğin kısa formunun sunulması amaçlanmıştır.Bir çeviri ve yeniden çeviri süreci gerçekleştirdik. Ölçek örneklemin bir alt grubuna uygulanmıştır. Geri bildirimler doğrultusunda ölçeğin son hali çevrimiçi platformlar aracılığıyla dağıtılmıştır. Güvenilirlik ve geçerlilik analizleri yapılmıştır. Çoklu madde yüklemesi nedeniyle Bölüm II'den 19 madde elenmiştir. Bu 19 maddelik form ölçeğin kısa formu olarak tanımlanmış ve aynı güvenirlik ve geçerlik analizleri bu kısa form ile yapılmıştır.SMÖ, Bölüm 2 için .97 Cronbach's Alpha değeri ile güvenilir bir ölçektir. Ancak AFA analizinde Kaiser-Meyer-Olkin analizi yapılmış ve sonuçta .954 değeri elde edilmiştir. Bartlett'in Küresellik Testi $\chi 2$=8508.921 ve p<.001 değerini vermiştir. Kısa form .913 Cronbach's Alpha değerine sahiptir. Ölçeğin hem orijinal hem de kısa formu klinik olarak geçerlidir. SMÖ'nin Türkçe versiyonu güvenilir ve geçerli bir ölçektir. Ölçeğin II. bölümünün kısa formu sunulmuş ve bu kısa form da güvenilir ve geçerli bulunmuştur.
Anahtar Kelimeler: Mizofoni, Sussex, Ölçek

Received : 23.08.2024

Accepted : 21.08.2025

Published :. 22.08.2025

How to cite/ Atıf için: Herdi O, Avcil C. The Turkish Adaptation of Sussex Misophonia Scale and A Short Form of the Scale, Osmangazi Journal of Medicine, 2025;47(6):914-922

1. Introduction

Misophonia is a neuropsychiatric disorder characterized by excessive emotional, physiological, and behavioural responses to certain stimuli which are mainly auditory(1). The disorder was first introduced by Jastreboff and Jastreboff as a part of the decreased sound tolerance umbrella diagnosis category which comprises hyperacusis, tinnitus and misophonia(2). Formerly, it was thought of an audiological disorder, however, current research has indicated that there is no audiological problem with patients with misophonia. Moreover, there are studies reporting that misophonia is a complex neuropsychiatric disorder with evidence that there is a correlation between misophonia symptoms and several psychological trait and state variables such as perfectionism, aggression, somatic amplification, depression, trait and state anxiety, autism trait, ADHD trait (3–6). It was shown that there is a strong relationship between misophonia and several psychiatric disorders such as OCD, PTSD, ADHD, and personality disorders(7–12).

The onset age of the disorder is mainly adolescence and there is evidence related to genetic transmission of the disorder(13,14). Epidemiologic studies have conflicting results about prevalence. Nevertheless, whereas Wu et al. reported %20 of their participants had misophonia symptoms(15), Naylor et al al. observed that approximately half of the participants had clinical misophonia(16). A study conducted in Turkey showed that the prevalence of misophonia was %12,8 and only %5.8 of the participants sought help(17).

Misophonia has no place in current diagnostic manuals and therefore it has no valid diagnostic criteria. However, several teams have offered their criteria to diagnose misophonia(13,18,19). Following this effort, authors designed scales to measure the clinical features of misophonia. Amsterdam Misophonia Scale (A-MISO-S) (13), and Misophonia Questionnaire (MQ)(15) are the most commonly used scales in studies. These two scales have valid and reliable Turkish versions (20,21).

Sussex Misophonia Scale (SMS) is one of these scales. It was developed by Rinaldi's team and indicated that this scale is suitable for both adults and adolescents. The developers also claimed that the scale is available for online use(22,23). (More detailed information was provided in the Method Section.)

Adaptation of scales is important to conduct research in different cultures and populations to exhibit the nature of a disorder. Considering misophonia is accepted but not included in diagnostic manuals, it will be essential to study its phenomenology, clinical features, and prevalence. Therefore, scales are indispensable for this purpose. In this paper, we aimed to carry out a Turkish adaptation of the SMS, and its reliability and validity studies in the Turkish people. Moreover, after conducting an Explanatory Factor Analysis, due to multi-loading upon factors, we had to exclude 19 items. Although it was not our primary hypothesis, we presented a short form (with 20 items) of the scale and its reliability and validity analysis.

2. Materials and Methods

a. Procedure

Immediately after obtaining ethical approval from the Social and Human Sciences Ethics Committee of xxx University (approval number: 2024/05, approval date: 11.01.2024), one of the authors (O.H) translated the scale into Turkish. Following this translation, the other author (C.A) back translated the translated version into English. After this phase, both authors compared the back-translated version with the original version and determined the final version of the scale. Both translators/authors have a good command of the English language. The first version of the scale was presented by both authors to 29 students as a preliminary study. The Cronbach α's of this preliminary study were .983 and the item-total score correlations were between .617 (item 18) and .900 (item 43). Therefore, no items were dropped from the scale. Feedback was obtained from the participants of the preliminary study. All feedback was related to the Turkish equivalent of the trigger sounds such as 'snorting, slurping'. Word preferences were revised in the direction of the feedback. The scale scores of these 29 participants were also included in the overall analysis. The scales were arranged in Google forms and distributed via online platforms (LinkedIn, Instagram, Twitter, WhatsApp) between February and April 2024.

b. Sample

The sample size was calculated using G*Power and was determined to be 262 with an effect size of 0.2, an alpha error value of 0.05 and a 1-beta value of 0.95. Inclusion criteria were being between 18 and

65 years old, being a native speaker of Turkish and volunteering to participate in the study. The online survey collected data from 280 participants, but two were excluded because they were not native Turkish speakers. As a result, the final analysis was conducted with data from 278 participants. Informed consent obtained from participants.

c. Measurement Tools

The Sociodemographic Data Form was developed by the authors and comprises questions related to gender, educational status, marital status, occupational status, history of psychiatric disorder, and history of problems related to hearing or the auditory system.

The Sussex Misophonia Scale (SMS) was developed by Simner et al. and comprises two parts (23). The first part, comprising eight items, assesses the impact of various sounds related to eating, repetitive tapping, rustling, throat, mouth and nose, certain voices, background sounds, and repetitive visual movements. Responses to these items are provided on a dichotomous scale (Yes/No). Additionally, for each item, several sound examples are presented. For instance, in Item 1, which pertains to eating sounds, the sounds of crunchy foods, crispy snacks, lip-smacking, swallowing, slurping, and wet mouth sounds are provided as examples. No score is calculated based on the responses provided in this section. Part II comprises 39 items (from Item 9 to Item 47). The second part is in 5-point Likert form, with a score between 0 and 4 (0 never, 1 hardly ever, 2 sometimes, 3 often, 4 always). The total score could be between 0 and 156, with higher scores indicating more severe misophonia symptomatology. The original scale comprises five factors: feelings/isolation, life consequences, intersocial reactivity, avoidance/repulsion, and pain (23).

The Misophonia Questionnaire (MQ) is the most frequently cited questionnaire in the misophonia literature and comprises 21 questions across three sections. Sections 1 and 2 comprise items related to triggers (n=8) and emotions/behaviours (n=11), respectively. Both sections employ a 5-point scale (0=Not at all true to 4=Always true) for responses, with satisfactory internal consistency (a=0.86). Section 3 is a 15-point severity scale, whereby participants are required to assess their own severity by taking into account their number of triggers, the degree of distress they experience, and the extent to which their lives are impaired. Individuals who report a score of 7 or below on the severity scale are considered to exhibit clinically significant symptoms of misophonia, in accordance with the diagnostic criteria set out in Wu et al.(15). The Turkish adaptation was conducted by Sakarya et al (24). For assessing clinical validity, the MQ was used.

The Depression-Anxiety-Stress Scale-21 (DASS-21) is a psychometric instrument designed to assess the severity of depressive, anxiety, and stress symptoms. The scale was developed in 1995 by Lovibond and Lovibond(25). At its inception, the scale comprised 42 items, with 14 questions each for depression, anxiety and stress. The scale was developed over time and evolved into a 21-item scale by Henry and Crawford in 2005 (26). It was subsequently translated into Turkish by Sarıçam in 2018 (27). The DASS-21 was used to assess relationship between severity of misophonia and depression, anxiety and stress levels.

d. Statistical Analysis

Descriptive analyses were conducted on sociodemographic variables and scale scores. In order to assess the reliability of the data, Cronbach's Alpha value was calculated, and total-item and item-item correlation analyses were carried out. In order to assess construct validity, the Kaiser-Meyer-Olkin (KMO) test and Bartlett's test were conducted. An Exploratory Factor Analysis (EFA) was conducted to identify the underlying factors. In order to assess the clinical validity of the data, Spearman's correlation analysis was conducted with the total score of the SMS, DASS-21 and MQ, as none of the scales exhibited normal distribution patterns. Analogous analyses were conducted for the abbreviated version of the scale. IBM's SPSS 22.0 software was employed for the analyses.

3. Results

a. Sociodemographic Variable and Total Scores of The Scales

Descriptive analyses related to sociodemographic variables and total scores of the scales were presented in Table 1.

Table 1. Sociodemographic Variables and the Total Scores of The Scales

	N	%	Median (Min-max)
Sociodemographic Variables			
Gender			
Male	66	23.7	
Female	212	76.3	
Age			30.5 (18-65)
Educational Status			
High School or Below	17	6.1	
University or Above	261	93.9	
Marital Status			
Married	113	40.6	
Single	165	59.4	
Occupational Status			
Employee	86	30.9	
Unemployed	192	69.1	
Psychiatric Disorder			
No	200	71.9	
Yes	78	28.1	
Problems Related to Auditory System			
No	258	92.8	
Yes	20	7.2	
Scale Scores			
SMS			25 (0-150)
MQ			31.5 (0-61)
DASS-21			14.5 (0-58)
SMS: Sussex Misophonia Scale, MQ: Misophonia Questionnaire, DASS-21: Depression-Anxiety-Stress Scale-21			

b. Reliability Analysis of Original Form

In the study, an internal consistency analysis was conducted as a reliability analysis, with item analysis also performed. The Cronbach's Alpha value for Part 2 was 0.97. This indicates that the scale is reliable. The inter-item correlation ranged from 0.113 to 0.848, with a mean coefficient of correlation of 0.463.

c. Construct Validity of Original Form

A KMO analysis was conducted, resulting in a value of .954. The Bartlett's Test of Sphericity yielded a value of $\chi 2=8508.921$, with a degree of freedom (df) of 741 and a p-value of less than 0.001. In the context of EFA, six factors were identified. Nevertheless, the original scale comprises five items. Despite the use of the Direct Oblimin rotation method, the items did not load on the factors in an appropriate manner. Subsequently, the factor fixing method was employed, with the scale fixed at five factors, and the Direct Oblimin rotation method was utilised for the reanalysis. Once more, the items demonstrated a lack of alignment with the original scale, resulting in an inability to load on factors in an optimal manner. The data related to the fixed factor analysis is presented in Table 2. Due to the multi-loading rotation pattern, the first analysis, which was carried out without fixed factors, was not presented in the table. The results of these analyses indicate that the Turkish version of the scale is valid, but that it cannot be divided into subscales through factors.

Table 2. Explanatory Factor Analysis of Original Form with Direct Oblimin Rotation and Fixed Factors to 5 Factors

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Item 40	.757				
Item 24	.744				
Item 18	.740				
Item 26	.695				
Item 13	.690				
Item 35	.623				
Item 25	.618				
Item 10	.575				
Item 19	.572				

Item 11	.548	-.399			
Item 32	.462				
Item 29	.451	.391			
Item 34	.440		-.389		
Item 12	.425	-.314	-.332		
Item 31	.314		-.304		
Item 37		-.708			
Item 15		-.578			
Item 47		-.572			
Item 28		-.553			
Item 41		-.537			
Item 9		-.507			
Item 20		-.448		.376	
Item 36		-.431	-.349		
Item 21		-.368		.365	
Item 33			-.918		
Item 27			-.872		
Item 17			-.802		
Item 14	.381		-.429		
Item 39				.767	
Item 22				.714	
Item 30				.654	
Item 46					
Item 43					-.791
Item 45					-.784
Item 16					-.659
Item 44			-.368		-.495
Item 23				.328	-.466
Item 38					-.417
Item 42		-.302			-.385
Rotation converged in 16 iterations					

d. Clinical Validity of Original Form

The MQ was employed to ascertain the clinical validity of the study, and an attempt was made to demonstrate a correlation between the severity of misophonia and anxiety, mood and stress, as measured by the DASS-21. The results demonstrated a high correlation between SMS and MQ. Furthermore, there was a moderate to high correlation between the DASS-21 and SMS (Table 3).

Table 3. Correlation Analysis of SMS, MQ, DASS-21

	SMS	**MQ**	**DASS-21**
SMS	-		
MQ	.825	-	
DASS-21	.404	.351	-
SMS: Sussex Misophonia Scale, MQ: Misophonia Questionnaire, DASS-21: Depression-Anxiety-Stress Scale-21			

e. Construct Validity of SMS Short Form

Following the exclusion of multi-loaded items, a total of 20 items were loaded on three factors. This implies that 19 items were excluded due to multi-loading or negative loading. The process of exclusion of items was that: First, multi-loaded items (into two or more factors) were excluded, then, due to construction of the scale in terms of that it has no item with reverse coding, items with negative loading were excluded. The Direct Oblimin rotation method was employed, and a loading value of greater than 0.30 was identified as the optimal threshold for determining proper loading. The KMO analysis of the abbreviated form yielded a value of .939. The results of Bartlett's Test of Sphericity ($\chi 2$=3302.95, df=190, p<.001) indicate that the data are not suitable for factor analysis. The items included in the short form are presented in Table 4. The first factor of the SF, which we also named as feelings/isolation, comprised nine items (13, 18, 19, 24, 25, 26, 32, 35, 40) of the feelings/isolation factor and one item (17) of the pain factor of the original forms. The second factor of the SF, which we

designated as intersocial reactivity/avoidance, comprised five items (15, 36, 41, 42, 47) of avoidance/repulsion, one item (16) of intersocial reactivity, and one item (21) of the life consequences factor of the original form. The final factor, designated as the "life consequences" factor, comprised three items (30, 39, 22) from the original life consequences factor.

Table 4. Explanatory Factor Analysis of Short Form with Direct Oblimin Rotation

	Factor 1	**Factor 2**	**Factor 3**
Item 24	.807		
Item 40	.877		
Item 13	.733		
Item 18	.729		
Item 35	.709		
Item 26	.692		
Item 25	.593		
Item 19	.578		
Item 32	.495		
Item 17	.336		
Item 15		.818	
Item 47		.797	
Item 41		.785	
Item 36		.762	
Item 42		.699	
Item 16		.615	
Item 21		.542	
Item 30			.804
Item 39			.764
Item 22			.757
Rotation converged in 7 iterations			

f. Reliability Analysis of SMS Short Form

The Cronbach's Alpha value for the SF was .943. This indicates that the SF form is also reliable. The inter-item correlation ranged from 0.221 to 0.747. The Cronbach's Alpha value for the first factor (feelings/isolation) was .913, the second factor (intersocial reactivity/avoidance) was .885, and the third factor (life consequences) was .821.

g. Clinical Validity of SMS Short Form

Spearman's correlation analysis was re-conducted for SF and results showed that SMS-SF was highly correlated with MQ and moderately correlated with DASS-21 (Table 5).

Table 5. Correlation Analysis of SMS-SF, MQ, DASS-21

	SMS-SF	MQ	DASS-21
SMS-SF	-		
MQ	.801	-	
DASS-21	.381	.351	-
SMS-SF: Sussex Misophonia Scale Short Form, MQ: Misophonia Questionnaire, DASS-21: Depression-Anxiety-Stress Scale-21			

4. Discussion

The present study represents a Turkish reliability and validity assessment of the SMS. Additionally, a brief version of the scale, which was not the primary focus of this investigation, has been presented. In light of the aforementioned findings, it can be concluded that both the Turkish version of the original scale, comprising two parts and 47 items in total, and the short form, comprising 8 items (Part I) and 20 items (Part II), are reliable and valid. However, while the original form comprises five factors, our analyses revealed three factors with 20 items for Part II. The 39 items in Part II of the original form could not be loaded into five factors. The three factors were designated as

feelings/isolation, intersocial reactivity/avoidance, and life consequences. The MQ was employed for the purpose of clinical validation, and both the original and short forms were found to be valid according to the results of our analysis. Furthermore, the DASS-21 was employed to assess the clinical correlation of the scale. Both forms demonstrated a moderate correlation with the DASS-21.

Despite its prevalence in the general population, misophonia, a neuropsychiatric disorder, has not been included in current diagnostic manuals. The disorder is estimated to affect approximately 10 to 20% of the population (15,17). The disorder presents with three main clinical phenomena: a) negative emotions towards specific sounds or visual stimuli of certain movements, b) thoughts related to these trigger sounds and the individuals who produce them, and c) behavioural responses such as aggression, avoidance, and isolation (13,28–30). Given this symptomatology, it is reasonable to hypothesize that misophonia may have life-altering consequences (4,5,31–33).

Although several scales have been developed to measure the severity of misophonia or to support diagnosis, two of them have a Turkish version: a) MQ (15,24) and A-MISO-S (13,20). The SMS, developed by Rinaldi and his team, is a valid and reliable scale that can be applied to both adolescents and adults. It can be used via online methods (22,23). The original form comprises two sections. The initial section of the scale is designed to assess the triggers that elicit the symptoms, while the subsequent section is employed to quantify the severity of the symptomatology. The original version comprises five factors, however, our EFA did not identify five factors with items loading on a single factor. Following a meticulous and sequential elimination of the items, 20 items loaded on three factors remained. This version was defined as a short form. A reliability and validity analysis of the short form demonstrated that it is also reliable and valid. The three factors were designated as feelings/isolation, intersocial reactivity/avoidance, and life consequences.

This kind of self-report questionnaires or scales are appropriate for screening levels of symptoms. Therefore, considering current conjuncture, scales or questionnaires with fewer questions will save time.

The divergence between the original and Turkish versions may be attributed to the fact that physical pain is not commonly regarded as a primary component of the disease. In the original version, four items pertain to pain, whereas only one item is related to feelings of isolation in our short form. This discrepancy is understandable when one considers that pain related to a trigger may be perceived as a feeling. Items pertaining to intersocial reactivity and avoidance/repulsion in the original form have been consolidated in the short form. The avoidance or repulsion and intersocial reactivity items pertain to thoughts and feelings towards others. Finally, only three items related to life consequences loaded on a single factor in our short form. This implies that a reduction in the number of questions would enable the assessment of the life consequences of misophonia. In original form, some of the items in the subscale of feeling/isolation and avoidance/repulsion were multi-loaded and this issue could be related to that feeling-repulsion (disgust) and avoidance-isolation are quite close concepts. According to our opinion, the main issue about the multi-loading and negative loading could be explained with cultural differences and that the concepts of subscales are not far distinct themes. As a cultural explanation, disgust is also a feeling in Turkish, therefore, items related to disgust were multi-loaded on feeling and repulsion subscales.

It should be noted that there are several limitations to our study. Firstly, a test-retest analysis was not conducted due to the use of an online methodology. Secondly, although the sample size was slightly larger than that calculated, a larger sample size may be required. Thirdly, the translation process was conducted by two authors of the paper. Although we are proficient in the translation process, a larger translation team would undoubtedly be advantageous. Fourth, although online methodologies have become increasingly popular in the wake of the COVID-19 pandemic, studies conducted with a face-to-face methodology are of greater value, as researchers are able to supervise the completion of the scale process. Conversely, our paper possesses certain strengths. Firstly, translation studies are of great importance in order to gain an understanding of the nature of the disorder in different populations and cultures. Turkey is a country that has been influenced by both Eastern and Western cultures. Furthermore, we developed a brief version of the scale. While longer forms of scales are favoured due to their greater number of questions and components, the compliance of participants in filling them in may be negatively affected by their length. In other words, short forms are more compatible with the participants filling them in.

5. Conclusions

This paper presents the Turkish validity and reliability of the SMS. The scale demonstrated reliability and validity, although the distributions of the items on the factors did not align with those observed in the original form. Following the elimination of items due to multi-loading, a shorter form of Part II of the original scale was obtained, consisting of 20 items.

REFERENCES

1. Swedo S, Baguley DM, Denys D, Dixon LJ, Erfanian M, Fioretti A, et al. A Consensus Definition of Misophonia: Using a Delphi Process to Reach Expert Agreement. medRxiv. 2021;
2. Jastreboff MM, Jastreboff PJ. Components of decreased sound tolerance: hyperacusis, misophonia, phonophobia. ITHS News Lett. 2001;2(5–7):1–5.
3. Natalini E, Dimaggio G, Varakliotis T, Fioretti A, Eibenstein A. Misophonia, Maladaptive Schemas and Personality Disorders: A Report of Three Cases. J Contemp Psychother. 2020;50(1).
4. Rinaldi LJ, Smees R, Ward J, Simner J. Poorer Well-Being in Children with Misophonia: Evidence from the Sussex Misophonia Scale for Adolescents. Front Psychol. 2022;13.
5. Cusack SE, Cash T V., Vrana SR. An examination of the relationship between misophonia, anxiety sensitivity, and obsessive-compulsive symptoms. J Obsessive Compuls Relat Disord. 2018;18.
6. Çolak B, Duman B, Herdi O, İlhan RS, Sakarya D. Misophonic symptoms in non-psychotic psychiatric outpatients and its association with trait psychological variables. J Obsessive Compuls Relat Disord. 2021;29.
7. Zhou X, Wu MS, Storch EA. Misophonia symptoms among Chinese university students: Incidence, associated impairment, and clinical correlates. J Obsessive Compuls Relat Disord. 2017;14.
8. Siepsiak M, Sobczak AM, Bohaterewicz B, Cichocki Ł, Dragan WŁ. Prevalence of misophonia and correlates of its symptoms among inpatients with depression. Int J Environ Res Public Health. 2020;17(15).
9. Erfanian M, Kartsonaki C, Keshavarz A. Misophonia and comorbid psychiatric symptoms: a preliminary study of clinical findings. Nord J Psychiatry. 2019;73(4–5).
10. Rinaldi LJ, Simner J. Mental Health Difficulties in Children who Develop Misophonia: An Examination of ADHD, Depression & Anxiety. Child Psychiatry Hum Dev. 2023;1–13.
11. Webber TA, Johnson PL, Storch EA. Pediatric misophonia with comorbid obsessive–compulsive spectrum disorders. Gen Hosp Psychiatry. 2014 Mar;36(2):231.e1-231.e2.
12. Rouw R, Erfanian M. A Large-Scale Study of Misophonia. J Clin Psychol. 2018;74(3).
13. Schröder A, Vulink N, Denys D. Misophonia: Diagnostic Criteria for a New Psychiatric Disorder. Fontenelle L, editor. PLoS One. 2013 Jan;8(1):e54706.
14. Sanchez TG, Silva FE da. Familial misophonia or selective sound sensitivity syndrome : evidence for autosomal dominant inheritance? Braz J Otorhinolaryngol. 2018;84(5).
15. Wu MS, Lewin AB, Murphy TK, Storch EA. Misophonia: Incidence, phenomenology, and clinical correlates in an undergraduate student sample. J Clin Psychol. 2014;70(10):994–1007.
16. Naylor J, Caimino C, Scutt P, Hoare DJ, Baguley DM. The Prevalence and Severity of Misophonia in a UK Undergraduate Medical Student Population and Validation of the Amsterdam Misophonia Scale. Psychiatric Quarterly. 2021;92(2).
17. Kılıç C, Öz G, Avanoğlu KB, Aksoy S. The prevalence and characteristics of misophonia in Ankara, Turkey: population-based study. BJPsych Open. 2021;7(5).
18. Dozier TH, Mitchell N. Novel Five-phase Model for Understanding the Nature of Misophonia and Providing Treatment. 2022;
19. Dozier TH, Morrison KL. Phenomenology of Misophonia: Initial physical and emotional responses. American Journal of Psychology. 2017;
20. Sarigedik E, Gulle B. A Study on Validation of Amsterdam Misophonia Scale in Turkish and Misophonia's Prevalence in Turkish High School/College Student Population. Psychiatry and Behavioral Sciences. 2021;11(4).

21. Altın B. Adaptation, Validity and Reliability of the Turkish version of Misophonia Assessment Questionnaire. Erciyes Medical Journal. 2021;
22. Rinaldi LJ, Ward J, Simner J. An automated online assessment for Misophonia: the Sussex Misophonia scale for adults. PsyArXiv [Preprint] doi. 2021;10.
23. Simner J, Rinaldi LJ, Ward J. An Automated Online Measure for Misophonia: The Sussex Misophonia Scale for Adults. Assessment. 2024;
24. Sakarya MD, Çakmak E. Mizofoni Ölçeği'nin Türkçe Formunun Geçerlik ve Güvenirlik Sınama Çalışması. Psikoloji Çalışmaları. 42(1):231–55.
25. Lovibond PF, Lovibond SH. The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. Behaviour research and therapy. 1995;33(3):335–43.
26. Henry JD, Crawford JR. The short-form version of the Depression anxiety stress scales (DASS-21): Construct validity and normative data in a large non-clinical sample. British Journal of Clinical Psychology. 2005;44(2).
27. Sarıçam H. The psychometric properties of Turkish version of Depression Anxiety Stress Scale-21 (DASS-21) in health control and clinical samples. 2018;
28. Dozier TH. Counterconditioning treatment for misophonia. Clin Case Stud. 2015;14(5):374–87.
29. Edelstein M, Brang D, Rouw R, Ramachandran VS. Misophonia: Physiological investigations and case descriptions. Front Hum Neurosci. 2013;
30. Oğuzhan Herdi. Mizofoni: Bazı Seslerden Tiksiniyorum. 1st ed. Oğuzhan Herdi, editor. Ankara: Nobel Akademik Yayıncılık; 2022. 1–179 p.
31. Alekri J, Al Saif F. Suicidal misophonia: a case report. Psychiatry and Clinical Psychopharmacology. 2019;29(2).
32. Cavanna AE, Seri S. Misophonia: current perspectives. Neuropsychiatr Dis Treat. 2015 Aug;11:2117.
33. Duddy DF, Oeding KAM. Misophonia: An overview. Semin Hear. 2014;35(2).