



Misophonia
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Characterization of Misophonia in a Nationally Representative Sample: Investigating Demographics and Comorbidity

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In a nationally representative sample, those with **misophonia** are more likely to report **co-occurring** psychological and auditory conditions.



Introduction:

- Misophonia is a disorder of decreased sound tolerance, which contributes to negative affective reactions and impairment¹.
- Prior research has shown misophonia commonly co-occurs with other mental health and medical conditions^{2,3,4}; however, most of this research has been conducted in clinical and community samples, which may bias the findings.

Current Study:

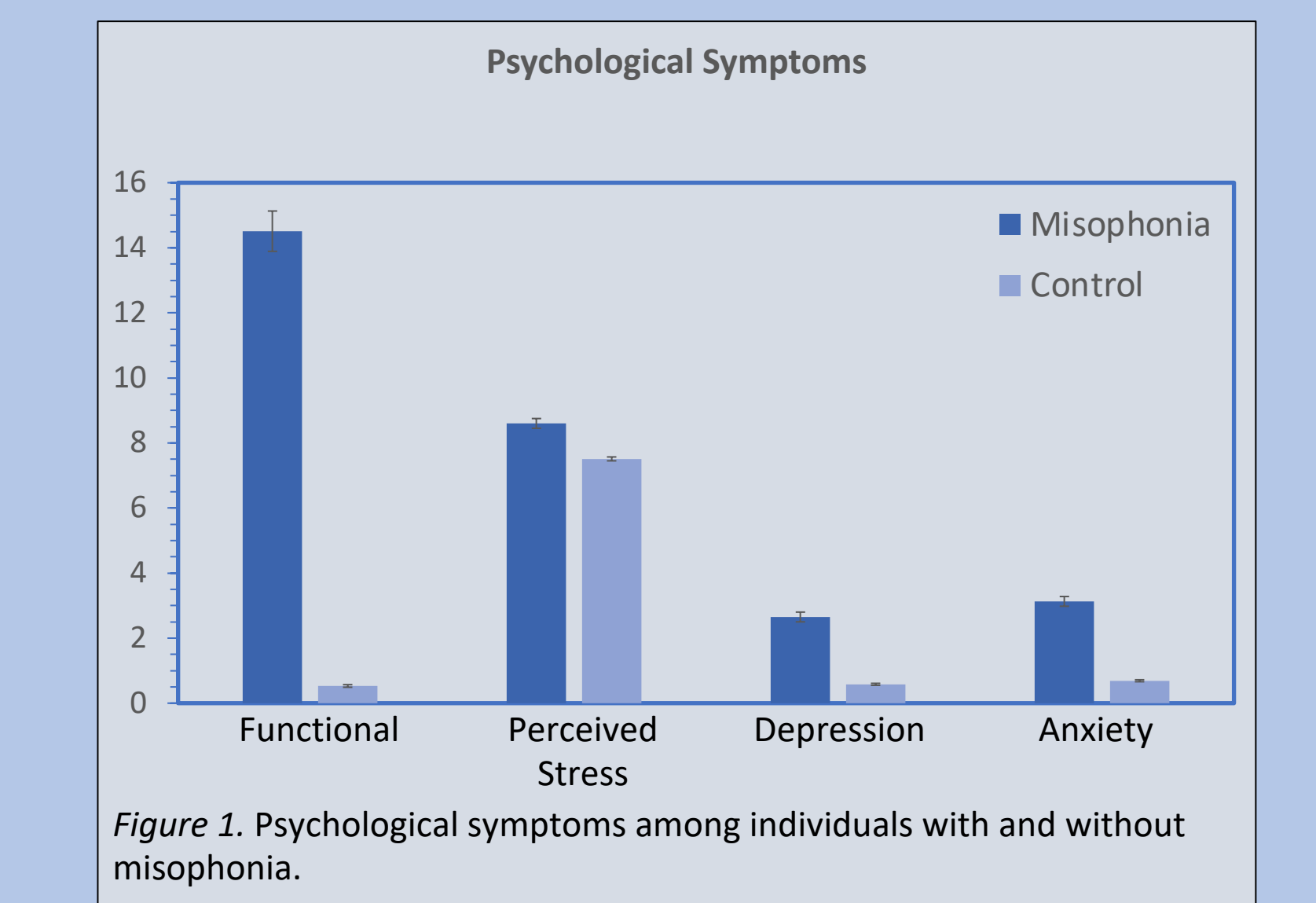
- The current study investigated demographic, psychological, and medical auditory characteristics of individuals with and without clinical levels of misophonia in a nationally representative sample of U.S. adults.
- H1: The misophonia group would evidence higher rates of co-occurring conditions.
- H2: Higher rates of impairment, stress, depression, and anxiety would be observed in the misophonia group compared to the control group.

Method:

- The sample ($N = 4,005$) was drawn from a large probability-based panel designed to be representative of the United States population.
- Participants completed a checklist history of psychological, hearing, and medical conditions, and then responded to brief self-report measures of impairment (WSAS)⁵, stress (PSS-4)⁶, depression (PHQ-9)⁷, and anxiety (GAD-2)⁸.
- The misophonia group ($M_{age} = 40.6$) screened positive for clinical levels of misophonia based on the Amsterdam Misophonia Scale (AMISO-S)⁹ and Misophonia Questionnaire (MQ)¹⁰. The Control group ($M_{age} = 50.6$) endorsed low or no misophonia symptoms. See Table 1.
- Analyses included independent samples t-test and chi-square analyses.

	Miso (%)	Control (%)	X ²	p
Gender			1.20	.274
Male	46.5	50.7		
Female	53.5	49.3		
Employment Status			.47	.491
Not working	58.2	39.2		
Working at least part time	41.8	60.8		
Marriage status			17.66	<.001
Married	43.8	59.9		
Not married	56.2	40.1		
Race/Ethnicity			2.39	.122
White	37.5	68.1		
POC	62.5	31.9		
Education			17.54	<.001
High School or Above	83.8	92.7		
Less than high school	16.2	7.3		

	Miso (%)	Control (%)	X ²	p
Hyperacusis	.7	.1	1.79	.181
Tinnitus	12.8	8.0	5.31	.021
Auditory Processing Disorder	4.9	.3	45.75	<.001
Other speech or hearing condition	5.9	2.5	7.25	.007
ADHD	19.8	3.7	89.03	<.001
PTSD	28.5	2.6	227.89	<.001
OCD	15.4	1.1	135.24	<.001
Anxiety Disorder	46.7	10.2	184.45	<.001
Depression	48.9	11.0	188.28	<.001
Eating Disorder	8.1	.7	62.56	<.001
OCPD	7.3	.3	77.95	<.001
ASD	4.2	.5	28.39	<.001
Repetitive Behavior Disorders	.5	.4	.14	.711
Other mental Health Disorder	13.1	1.2	98.41	<.001
None of the above	31.1	72.4	133.13	<.001



Discussion:

- Results inform the characterization of misophonia by identifying demographic and clinical conditions that are more common among individuals with (vs. without) misophonia.
 - This may enhance the detection of misophonia in clinical settings.
- Those with (vs. without) misophonia are more prone to experience additional psychological and medical conditions, which may exacerbate the burden of this condition.

Implications:

- To improve overall wellbeing for individuals with misophonia, CBT therapists should consider the role of co-occurring mental health conditions, as well as collaborations with other providers to facilitate a multidisciplinary approach to assessment and treatment.



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Title: Characterization of Misophonia in a Nationally Representative Sample: Investigating Demographics and Comorbidity

Background: Misophonia is a disorder of decreased tolerance to specific sounds, which elicits negative affective reactions (e.g., irritation, anxiety) and contributes to impairment (Swedo et al., 2022). A small number of studies have found that misophonia commonly co-occurs with mental health disorders and medical conditions (Jager et al., 2020; Rosenthal et al., 2022); however, generalizability is limited by the samples used in these studies. To further understand the etiology and clinical presentation of misophonia, the current study investigated psychological, hearing, and medical characteristics of individuals with and without clinical levels of misophonia in a nationally representative sample. We hypothesized that the misophonia group would evidence higher levels of comorbidity and impairment compared to the control group. In addition, we predicted that misophonia symptoms would predict greater burden of symptoms.

Methods: Data were collected through Ipsos KnowledgePanel, which maintains a large, probability-based web panel designed to be representative of the United States. Participants ($N = 4,005$; 62.5% White, 51.5% Female) reported demographic and clinical characteristics and completed self-report measures of depression (PHQ-2; Kroenke et al., 2003), anxiety (GAD-2; Kroenke et al., 2007), stress (PSS-4; Cohen et al., 1983) and impairment (WSAS; Mundt et al., 2002). The misophonia group ($n = 185$) screened positive for clinical levels of misophonia based on the Amsterdam Misophonia Scale (AMISO-S; Schroder et al., 2013; $M = 12.7$, $SD = 2.6$) and Misophonia Questionnaire (MQ; Wu et al., 2014; Severity $M = 9.3$, $SD = 2.4$), whereas the control group ($n = 135$) endorsed low or no misophonia symptoms (AMISO-S; $M = .5$, $SD = .9$; MQ $M = 1.8$, $SD = 2.3$). Independent samples t-tests, logistic regression, and chi-square analyses were conducted.

Results: Individuals with misophonia were significantly more likely to be unmarried ($p < .001$) and have a high school education or above ($p < .001$). Participants with misophonia showed significantly higher symptoms of depression ($t[317] = 11.32$, $p < .001$), anxiety ($t[317] = 14.75$, $p < .001$), impairment ($t[316] = 20.46$, $p < .001$), and stress ($t[317] = 4.62$, $p < .001$). Individuals with misophonia were significantly more likely to report a history of psychological and hearing issues with exceptions for Hyperacusis ($p = .181$) and Repetitive Behavior Disorders ($p = .711$).

Discussion:

Results inform the characterization of misophonia by identifying demographic and clinical conditions that are more common among individuals with (vs. without) misophonia, which may enhance the detection of misophonia in clinical settings. Additionally, findings suggest that individuals with (vs. without) misophonia are more prone to experience additional psychological and medical conditions, which may exacerbate the burden of this condition. To improve overall wellbeing for individuals with misophonia, CBT therapists should consider the role of co-occurring mental health conditions, as well as collaborations with other providers to facilitate a multidisciplinary approach to assessment and treatment.

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