

3 ORIGINAL ARTICLE

4 When sound becomes torture: misophonia 5 symptom profiles, phenomenology, 6 insomnia, and psychosocial patterns in an 7 online sample of Saudi adults

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11 ABSTRACT

12 **Background:** Misophonia is characterized by intense emotional and behavioral responses to specific sounds
13 and may interfere with daily functioning. Its relationship with insomnia remains insufficiently studied, particu-
14 larly among adults in Saudi Arabia.

15 **Objectives:** This study examined Duke-Vanderbilt Misophonia Screening Questionnaire (DVMSQ)-based miso-
16 phonia symptom profiles, common sound triggers, functional impairment, and the association between miso-
17 phonia severity and insomnia among Saudi adults participating in an online survey.

18 **Methods:** A cross-sectional online survey was conducted among adults residing in Saudi Arabia. After removal
19 of three duplicate responses, 998 participants were included in the analysis. Misophonia profiles were clas-
20 sified using the DVMSQ, while insomnia symptoms were assessed using the insomnia severity index (ISI).
21 Descriptive analyses, group comparisons, ordinal logistic regression, multinomial logistic regression, and sen-
22 sitivity analyses were performed.

23 **Results:** Among participants, 61.1% had no DVMSQ screening profile, 15.1% had a subclinical profile, and
24 23.7% had a clinically significant profile. Chewing and nasal/sniffing sounds were the most common triggers.
25 Moderate-to-severe insomnia symptoms were present in 28.7% of participants. Compared with those without
26 a DVMSQ profile, participants with clinically significant and subclinical profiles had higher odds of greater
27 insomnia severity (adjusted odds ratio [OR] = 3.19, 95% confidence interval [CI] 2.37-4.30 and adjusted OR =
28 1.59, 95% CI 1.13-2.24, respectively).

29 **Conclusions:** More severe misophonia screening profiles were independently associated with greater insom-
30 nia severity. Future longitudinal studies using culturally validated measures and representative samples are
31 needed.

32 **Keywords:** misophonia, insomnia, Saudi Arabia, sound intolerance, DVMSQ, cross-sectional study.

33 Introduction

34 Misophonia is the decrease in tolerance and strong
35 negative responses to certain sounds and sound patterns.
36 Unlike sensitivity to loud sounds seen in conditions
37 such as hyperacusis, misophonic reactions are usually
38 triggered by the meaning, pattern, or context of sounds
39 rather than their intensity. Common sources are repetitive
40 human sounds including chewing, breathing, sniffing,
41 swallowing and throat-clearing, among others [1].
42 These triggers can elicit strong emotional, physical, and

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behavioral reactions such as anger, disgust, irritation, anxiety, muscle tension, and desires for escape or silencing the sound.

Misophonia goes beyond being simply an annoyance as symptoms can make it difficult to function in everyday life. Previous studies have reported associations with avoidance behaviors, concentration difficulties, emotional distress, and impairment in social, educational, and occupational activities [2,3]. Patterns of triggers are also fairly consistent across populations with chewing, sniffing, tapping, and other man-made noises all commonly reported [4]. The range of estimates of symptom frequency is large, however, as studies vary in sampling methods, measurement instruments, and definitions of clinically significant symptoms [3,5].

Psychological and auditory characteristics may influence misophonia severity. Previous studies have reported correlations with anxiety, depression, obsessive-compulsive disorder (OCD) symptoms, stress, and auditory sensitivity; however, these findings do not prove that these conditions are responsible for misophonia [6,7]. Sleep disturbance represents another potentially important correlate. Improper responses to triggering sounds, inability to focus attention, anxieties about listening to triggering sounds, and inability to manage negative emotions may all play a role in sleep challenges for people with extreme misophonia symptoms. However, evidence examining the relationship between misophonia and insomnia, particularly among adults, remains limited.

The Saudi context is under researched. Previous research has largely examined single groups of people (e.g., university students or medical students), and there are little data on symptom profiles or functional burden of misophonia in larger adult samples. In addition, few studies have investigated if misophonia severity is related to insomnia controlling for auditory, mental-health, and demographic/socioeconomic factors.

Therefore, this study aimed to examine DVMSQ-based misophonia screening profiles, trigger characteristics, functional interference, and insomnia symptoms among adults participating in an online Saudi survey. The primary objective was to determine whether greater misophonia symptom severity was independently associated with higher insomnia severity after adjustment for relevant participant characteristics.

Methods

This cross-sectional study used a bilingual Arabic-English online questionnaire administered through Google Forms between January 16 and February 11, 2024, among adults residing in Saudi Arabia. This survey was sent electronically via Internet platforms and social media and therefore was a convenient, nonprobability sample. The reporting was done according to the recommendations of the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) [8]. Eligible participants were adults aged 18-65 years who reported living in Saudi Arabia and provided electronic informed consent. Prior to filling out the questionnaires, the purpose of the study,

the volunteer nature of participation, confidentiality procedures, and the right to withdraw were explained.

The participants were selected from different regions of Saudi Arabia including central, eastern, southern, northern, and western regions. But there was no probability sampling frame, and no population weights were available. Hence, the results were viewed as representing the sample characteristics recruited and thus were not regarded as representative estimates of the Saudi adult population. The original dataset contained 1,001 submitted responses. Data quality assessment was carried out prior to analysis, and three duplicate pairs of responses were detected, both of which had the same responses to the same questionnaire, and have been excluded from the analysis. After cleaning data, there were 998 participants for the primary analytical sample.

Misophonia symptoms were assessed using items derived from the DVMSQ. The DVMSQ is a self-report questionnaire that evaluates misophonia-related symptoms and functional disability in four domains: anger/aggression, distress/avoidance, impairment, and global impact [9]. The participants were divided into three groups based on the screening criteria of the DVMSQ: No screening profile, subclinical screening profile, and clinically significant screening profile. These classifications were considered to be questionnaire-based screening profiles rather than diagnosed clinical conditions as no clinical interview was conducted to confirm diagnoses.

Insomnia symptoms were measured with the 7-item insomnia severity index (ISI), which is designed to measure sleep initiation and maintenance difficulties, early morning waking, satisfaction with sleep, sleep-related impairment, and distress from sleep problems [10]. The total ISI scores ranged from 0 to 28 and were classified as no clinically significant insomnia (0-7), subthreshold insomnia (8-14), moderate insomnia symptoms (15-21), and severe insomnia symptoms (22-28). Other variables recorded were the sociodemographic data, age, sex, education, marital status, occupation, region of residence, and income adequacy. Clinical characteristics were self-reported chronic conditions, mental-health conditions, hearing problems, neurological/auditory problems, and use of a hearing aid.

Descriptive and inferential analyses were undertaken for the statistical analysis. All the participant characteristics, DVMSQ profiles, and insomnia categories were summarized in terms of frequencies, percentages, and means, as well as standard deviations when applicable. Cronbach's alpha was used to assess internal consistency of the DVMSQ and ISI. Chi-square analyses and group comparison procedures were used to look for associations between participant characteristics, misophonia screening profiles, and insomnia severity.

The main analysis employed ordinal logistic regression to assess the relationships between the screening profiles and categories of insomnia severity. Insomnia severity was the dependent variable, and the independent variable was mainly the classification of DVMSQ profiles. Demographic, socioeconomic, mental-health, chronic illness, and auditory-related factors were added

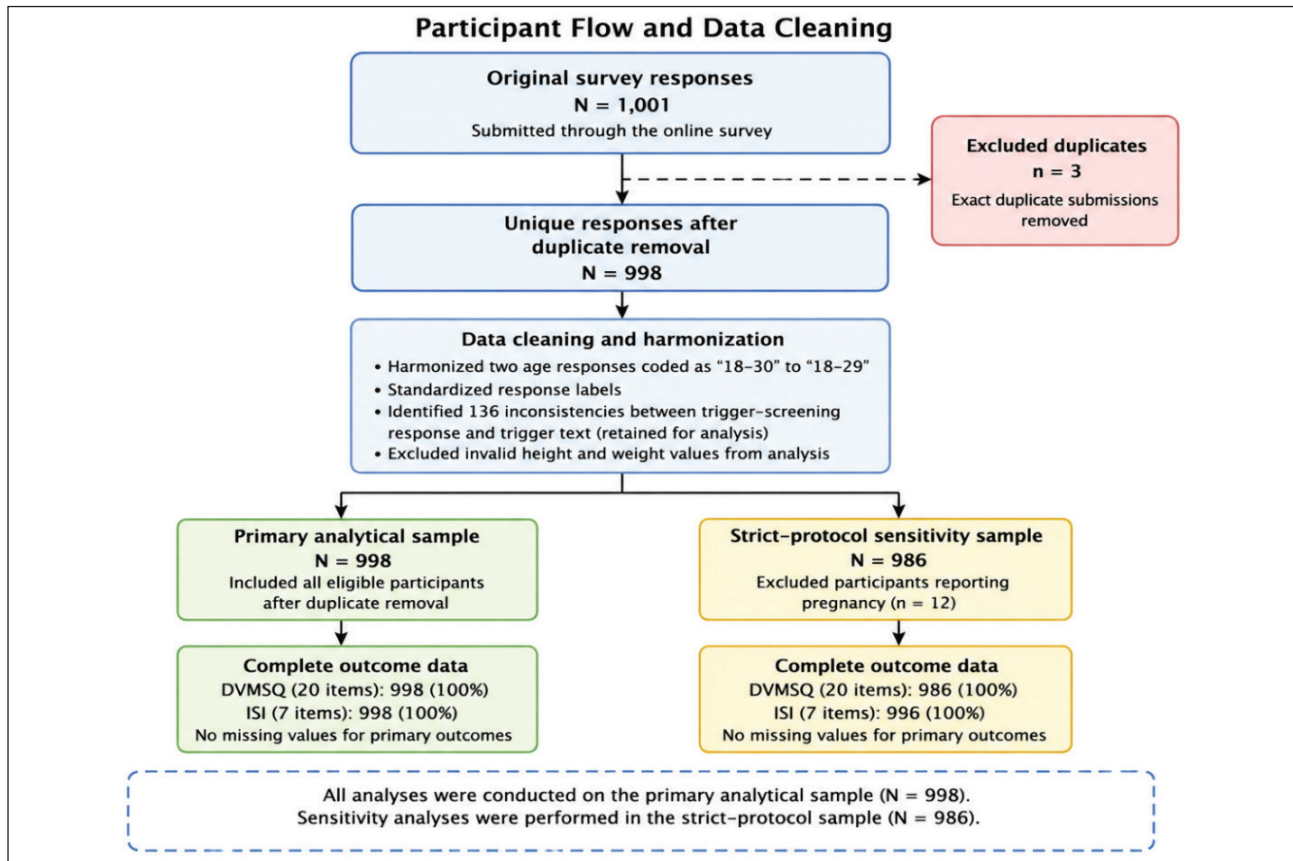


Figure 1. Participant inclusion and data-cleaning flowchart

Table 1. Participant characteristics according to DVMSQ screening profile

Characteristic	Overall N = 998	No profile n = 610	Subclinical n = 151	Clinically significant n = 237
Age group				
18-29 years	566 (56.7)	299 (49.0)	108 (71.5)	159 (67.1)
30-39 years	165 (16.5)	103 (16.9)	23 (15.2)	39 (16.5)
40-49 years	152 (15.2)	108 (17.7)	14 (9.3)	30 (12.7)
50-65 years	115 (11.5)	100 (16.4)	6 (4.0)	9 (3.8)
Sex				
Male	215 (21.5)	171 (28.0)	23 (15.2)	21 (8.9)
Female	783 (78.5)	439 (72.0)	128 (84.8)	216 (91.1)
Mental-health condition				
Yes	271 (27.2)	129 (21.1)	46 (30.5)	96 (40.5)
No	727 (72.8)	481 (78.9)	105 (69.5)	141 (59.5)

sequentially to regression models. Secondary analyses focused on multinomial logistic regression to examine factors associated with DVMSQ profiles and sensitivity analyses using other sample definitions and outcome classifications. Results were reported as adjusted odds ratios (AORs) with 95% confidence intervals (CIs), and interpretation emphasized effect estimates and uncertainty rather than statistical significance alone.

Results

The original dataset contained 1,001 submitted questionnaires. Three duplicates were found throughout the quality-control screening process and removed,

leaving 998 unique participants for the primary analysis. 100% of all participants completed the primary DVMSQ and ISI measures. A strict-protocol sensitivity sample excluding 12 participants who reported pregnancy included 986 participants and produced comparable estimates (Supplementary Material). The selection procedure of the participants and the derivation of the analytical sample are provided in Figure 1.

Table 1 shows the demographic, socioeconomic, and clinical features of the participants by screening profile of the DVMSQ. Among the 998 participants, 56.7% were aged 18-29 years and 78.5% were women. The majority of the participants were bachelor's degree holders or

Supplementary Table 1. Full participant characteristics according to DVMSQ screening profile

Characteristic	Overall, N = 998	No screening profile, n = 610	Subclinical profile, n = 151	Clinically significant profile, n = 237	p-value	Cramér's V
Age group, n (%)						
18-29 years	566 (56.7)	299 (49.0)	108 (71.5)	159 (67.1)	<0.001	0.168
30-39 years	165 (16.5)	103 (16.9)	23 (15.2)	39 (16.5)		
40-49 years	152 (15.2)	108 (17.7)	14 (9.3)	30 (12.7)		
50-65 years	115 (11.5)	100 (16.4)	6 (4.0)	9 (3.8)		
Sex, n (%)						
Male	215 (21.5)	171 (28.0)	23 (15.2)	21 (8.9)	<0.001	0.203
Female	783 (78.5)	439 (72.0)	128 (84.8)	216 (91.1)		
Education, n (%)						
Secondary or below	313 (31.4)	181 (29.7)	56 (37.1)	76 (32.1)	0.165	0.057
Diploma or college	83 (8.3)	57 (9.3)	6 (4.0)	20 (8.4)		
Bachelor's or postgraduate	602 (60.3)	372 (61.0)	89 (58.9)	141 (59.5)		
Marital status, n (%)						
Married	389 (39.0)	285 (46.7)	40 (26.5)	64 (27.0)	<0.001	0.199
Not married	609 (61.0)	325 (53.3)	111 (73.5)	173 (73.0)		
Region, n (%)						
Central region	773 (77.5)	464 (76.1)	123 (81.5)	186 (78.5)	0.333	0.047
Other regions	225 (22.5)	146 (23.9)	28 (18.5)	51 (21.5)		
Occupation, n (%)						
Healthcare sector	110 (11.0)	72 (11.8)	20 (13.2)	18 (7.6)	<0.001	0.130
Other employed	312 (31.3)	211 (34.6)	36 (23.8)	65 (27.4)		
Student	398 (39.9)	202 (33.1)	75 (49.7)	121 (51.1)		
Unemployed	178 (17.8)	125 (20.5)	20 (13.2)	33 (13.9)		
Income adequacy, n (%)						
Insufficient and borrowing	47 (4.7)	26 (4.3)	8 (5.3)	13 (5.5)	0.020	0.087
Insufficient	227 (22.7)	121 (19.8)	43 (28.5)	63 (26.6)		
Sufficient	474 (47.5)	315 (51.6)	55 (36.4)	104 (43.9)		
Sufficient with savings	250 (25.1)	148 (24.3)	45 (29.8)	57 (24.1)		
Chronic condition, n (%)						
Yes	198 (19.8)	129 (21.1)	21 (13.9)	48 (20.3)	0.134	0.063
No	800 (80.2)	481 (78.9)	130 (86.1)	189 (79.7)		
Mental-health condition, n (%)						
Yes	271 (27.2)	129 (21.1)	46 (30.5)	96 (40.5)	<0.001	0.183
No	727 (72.8)	481 (78.9)	105 (69.5)	141 (59.5)		
Auditory indicator, n (%)						
Yes	94 (9.4)	56 (9.2)	12 (7.9)	26 (11.0)	0.579	0.033
No	904 (90.6)	554 (90.8)	139 (92.1)	211 (89.0)		

Note: Values are presented as n (%). P-values represent comparisons across DVMSQ screening profile groups. Cramér's V represents effect size for categorical comparisons.

post-graduates (60.3%), and the majority of them were from Central (77.5%). Students represented the largest occupational group (39.9%), followed by other employed participants (31.3%). 27.2% of participants reported self-reported mental-health indicators, and 9.4% reported indicators of auditory, neurological-auditory, or hearing-aid conditions.

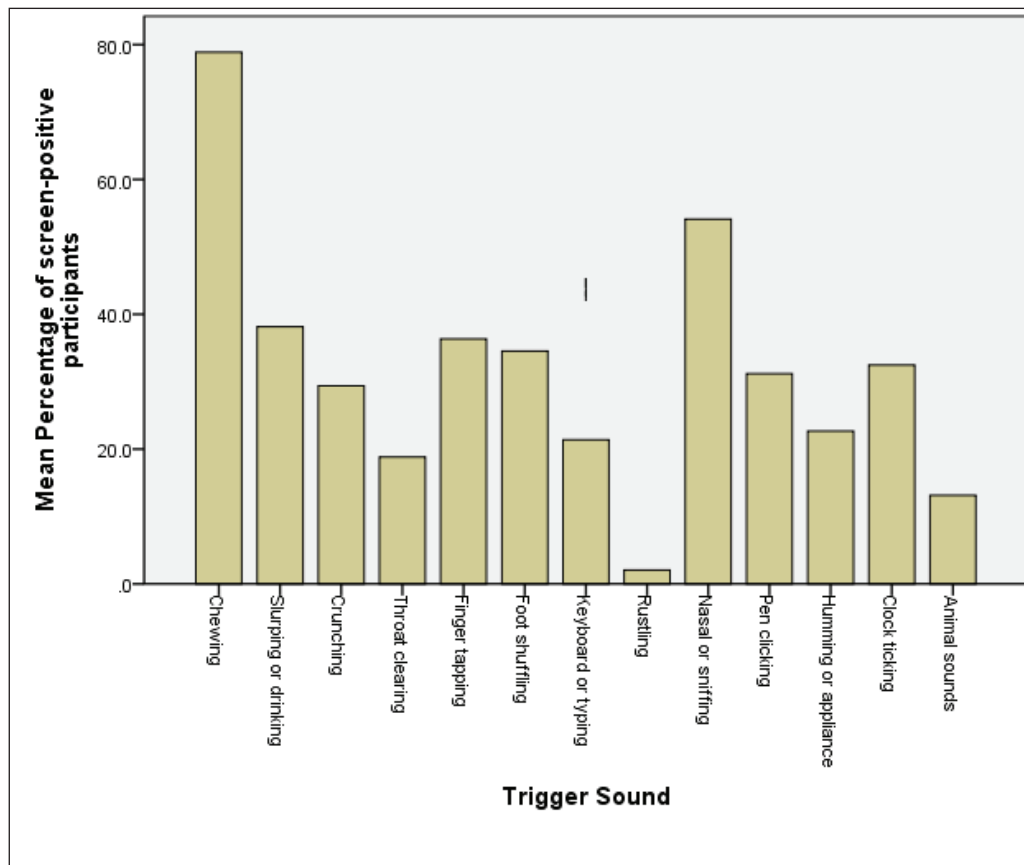
The distribution of DVMSQ screening profiles differed significantly according to age, sex, marital status, occupation, income adequacy, and mental-health status (Table 1). Women, younger people, and those with mental-health conditions were more likely to have

clinically significant profiles. Education, region, chronic conditions, and auditory indicators had no significant relationships with the DVMSQ profile classification. Additional participant characteristics, including complete sociodemographic and clinical comparisons across DVMSQ groups, are provided in Supplementary Table 1.

The DVMSQ and ISI demonstrated strong internal consistency in the current sample, with Cronbach's alpha values supporting the reliability of both instruments for subsequent analyses. The distribution of the DVMSQ screening profiles and insomnia severity categories are summarized in Table 2. Among participants, 610 (61.1%)

Table 2. Distribution of DVMSQ profiles and insomnia severity

Measure	Category	n(%)
DVMSQ profile	No screening profile	610 (61.1)
	Subclinical profile	151 (15.1)
	Clinically significant profile	237 (23.7)
	Combined screen-positive group	388 (38.9)
ISI category	No clinically significant insomnia	355 (35.6)
	Subthreshold insomnia	357 (35.8)
	Moderate insomnia symptoms	226 (22.6)
	Severe insomnia symptoms	60 (6.0)
	Moderate-to-severe insomnia (ISI ≥ 15)	286 (28.7)

**Figure 2.** Distribution of trigger sounds among participants with subclinical or clinically significant DVMSQ screening profiles (n = 388).**Table 3.** Association between DVMSQ profile and insomnia severity

Model	Clinically significant profile OR (95% CI)	Subclinical profile OR (95% CI)
Unadjusted model	4.03 (3.03-5.36)	1.89 (1.35-2.63)
Age and sex adjusted	3.53 (2.64-4.74)	1.62 (1.15-2.27)
Fully adjusted model	3.19 (2.37-4.30)	1.59 (1.13-2.24)

214 had no DVMSQ screening profile, 151 (15.1%) had a
 215 subclinical profile, and 237 (23.7%) met the criteria for
 216 a clinically significant screening profile. Overall, 388
 217 participants (38.9%) had either a subclinical or clinically
 218 significant profile. These values are based on sample
 219 proportions and are not to be interpreted as prevalence

estimates due to the voluntary online convenience 220
 sampling approach for recruiting participants. 221

Chewing was the most common (78.9%) event reported 222
 for participants with subclinical or clinically significant 223
 profiles, followed by nasal or sniffing sounds (54.1%). 224

225 Other common triggers were slurping/drinking noises,
226 tapping fingers, shuffling feet, clock ticking, pen
227 clicking, and crunching. Figure 2 depicts the breakdown
228 of the number of participants for oral and nasal sounds
229 reported, with the majority of the individuals who
230 completed a DVMSQ screening profile reporting more
231 oral sounds than nasal sounds.

232 Participants with misophonia screening profiles most
233 commonly reported reactions involving sound blocking,
234 escape urges, concentration difficulties, irritation, anger,
235 disgust, and avoidance. Functional effects were most
236 evident in global sound-related problems, emotional
237 health, work or study functioning, and social interaction,
238 indicating that misophonia-related distress extended
239 beyond immediate sound-triggered reactions.

240 The mean ISI score for the overall sample was 10.67
241 (SD = 6.65). As shown in Table 2, 35.6% of participants
242 had no clinically significant insomnia symptoms, while
243 35.8% had subthreshold insomnia. Moderate and severe
244 insomnia symptoms were reported by 22.6% and 6.0%
245 of participants, respectively, resulting in 28.7% of the
246 sample meeting the threshold for moderate-to-severe
247 insomnia symptoms.

248 A graded relationship was observed between DVMSQ
249 profile severity and insomnia symptoms, with insomnia
250 burden increasing progressively from the no-profile
251 group to the clinically significant group. Participants
252 with no DVMSQ profile had a mean ISI score of 9.03
253 (SD = 6.12), compared with 11.58 (SD = 6.85) among
254 those with subclinical profiles and 14.32 (SD = 6.30)
255 among those with clinically significant profiles. The
256 distribution of insomnia severity differed significantly
257 across DVMSQ groups ($\chi^2(6) = 97.65, p < .001$).

258 The primary regression analysis demonstrated a
259 graded and independent association between DVMSQ
260 screening profile severity and insomnia severity after
261 adjustment for relevant demographic, clinical, and
262 auditory-related factors (Table 3). After adjustment for
263 demographic, socioeconomic, mental-health, chronic
264 illness, and auditory-related variables, participants with
265 clinically significant DVMSQ profiles had higher odds
266 of being classified into a more severe insomnia category
267 compared with those without a DVMSQ profile
268 (adjusted OR = 3.19, 95% CI 2.37-4.30). Participants
269 with subclinical profiles also demonstrated increased
270 odds of greater insomnia severity (adjusted OR = 1.59,
271 95% CI 1.13-2.24).

272 Finally, multinomial regression showed that clinically
273 significant DVMSQ profiles were independently
274 associated with female sex, younger age, and self-
275 reported mental-health conditions. Women had higher
276 odds of clinically significant profiles compared with
277 men (adjusted OR = 2.91, 95% CI 1.73-4.91), while
278 participants reporting mental-health conditions also
279 demonstrated increased odds (adjusted OR = 1.92, 95%
280 CI 1.36-2.71). These findings suggest that demographic
281 and psychological characteristics may contribute to
282 variation in misophonia symptom profiles, although
283 longitudinal studies are required to clarify temporal
284 relationships.

285 Discussion

286 This study examined misophonia screening profiles,
287 trigger characteristics, functional consequences, and
288 insomnia symptoms among 998 Saudi adults who
289 completed an online survey. Results showed that
290 clinically significant DVMSQ screening profiles were
291 independently related to increased insomnia severity
292 even after controlling for demographic, socioeconomic,
293 mental health, chronic illness, and auditory-related
294 factors. The odds for those participants with clinically
295 significant profiles were over three times greater for
296 being classified in one of the more severe insomnia
297 categories, and for those with subclinical profiles, there
298 was also an increase in odds. Furthermore, chewing and
299 sniffing/nasal sounds were the most common triggers
300 reported, and misophonia symptoms were linked to
301 emotional distress, avoidance behaviours, difficulties
302 with concentration, and disruption of daily functioning.
303 The results were consistent with the growing knowledge
304 that misophonia is a more than a mere sound intolerance
305 and has clinically significant emotional, cognitive, and
306 functional consequences [1,2,11].

307 The percentage of participants with clinically significant
308 misophonia screening profiles should be regarded in
309 relation to the study design and the method used to assess
310 misophonia. In the present sample, 23.7% of participants
311 met criteria for a clinically significant DVMSQ
312 profile, while 38.9% had either subclinical or clinically
313 significant profiles. Population prevalence should not be
314 relied upon as the estimates were taken from a voluntary
315 online convenience survey. Previous studies have
316 shown that there is high heterogeneity in the rates of
317 misophonia reporting based on the variety of assessment
318 tools, definitional criteria, recruitment procedures,
319 and population demographics [12,13]. For example,
320 Almadani et al. identified misophonia symptoms among
321 Saudi medical students using a different measurement
322 approach, whereas nationally representative studies
323 from other populations have generally reported different
324 symptom distributions when probability-based sampling
325 methods were used [14]. Thus, the results of the present
326 study should be interpreted as representing the distribution
327 of misophonia symptoms in the sample recruited and not
328 as an estimate of the national prevalence.

329 The trigger patterns found in this study echoed the
330 previous description of the misophonia phenomenology.
331 More common triggers than those reported here were
332 chewing sounds and nasal sounds, which is consistent
333 with the findings of previous studies that have shown
334 oral and respiratory sounds to be among the most salient
335 misophonic triggers across populations [4,15]. The
336 most frequent complaints of the participants were sound
337 blocking, urge to escape, irritation, anger, disgust, and
338 avoidance behaviors, and there were less frequently
339 reports of overt aggression. This is consistent with the
340 current conceptualization of misophonia as one of
341 heightened emotional reactivity, attentional capture, and
342 behavioral avoidance, rather than just disliking specific
343 sounds [1,16]. The functional consequences observed
344 further highlight the need for a distinction from the
345 clinical significance of the symptoms of misophonia and

346	from common annoyance or preference-related sound	407
347	sensitivity.	408
348	The key finding of this study is the relationship	409
349	between misophonia severity and insomnia severity	410
350	observed. The association continued to be important	411
351	when adjusted for a few potential confounding factors,	
352	and the association was not completely accounted	
353	for by demographic factors, mental health, chronic	
354	health, or hearing-related factors. The cross-sectional	
355	design does not allow for inferences about causality,	
356	but there are a number of mechanisms that can be	
357	hypothesized to account for this association. When a	
358	trigger sound occurs, those with severe misophonia	
359	might be drawn to listening to it, feel anxious when it	
360	occurs, and feel their response to the sound, or feel an	
361	urge to respond to it, is getting out of control, which	
362	can make it hard to fall asleep or stay asleep. In past	
363	studies, misophonia severity has been correlated with	
364	emotion regulation issues, psychological distress,	
365	and increased emotional reactions to trigger sounds	
366	[6,17,18]. Likewise, more general studies on insomnia	
367	have shown that cognitive and emotional hyperarousal	
368	are key factors in maintaining insomnia [19]. These	
369	proposed mechanisms were not actually tested in the	
370	present study, however, and should be explored in	
371	future long-term studies.	
372	The findings have several clinical implications.	
373	Individuals presenting with severe sound intolerance	
374	may benefit from assessment that extends beyond	
375	trigger identification to include sleep disturbance,	
376	emotional responses, avoidance behaviors, and	
377	functional impairment. Similarly, people with sleep	
378	problems might benefit from assessing if certain noises	
379	are related to their sleep problems. Existing methods of	
380	assessment are focused on the severity of the symptoms,	
381	the impact of the symptoms on the functioning of daily	
382	life, and psychological factors, which are associated	
383	with misophonia rather than the mere presence of trigger	
384	sounds [9,11,16]. While studies looking specifically at	
385	misophonia-related sleep issues are limited in number,	
386	recent findings indicate sleep disruption can be an	
387	important clinical target for people who have severe	
388	misophonia symptoms [20].	
389	This study has several strengths, including the relatively	
390	large analytical sample, assessment of multiple	
391	dimensions of misophonia symptoms, use of established	
392	screening measures, and multivariable modelling that	
393	accounted for relevant demographic and clinical factors.	
394	However, there are some drawbacks that need to be taken	
395	into account. First, the convenience sampling method	
396	means that the sample is mainly female and relatively	
397	young and is restricted to certain geographical areas,	
398	which results in a lack of generalizability. Second, the	
399	cross-sectional design does not allow for determination	
400	of whether misophonia leads to insomnia, insomnia	
401	predisposes to symptoms of misophonia, or insomnia	
402	and misophonia are both caused by some shared factors.	
403	Third, all measures were self-reported, and mental-	
404	health and auditory conditions were not clinically	
405	assessed. Lastly, the DVMSQ has been shown to be	
406	psychometrically valid, but there are limited formal	
	Arabic cultural validations. Cross-cultural adaptation	407
	and validation are significant as language, cultural	408
	interpretation, and measurement properties are likely to	409
	affect symptom reporting and symptom classifications	410
	across populations [13,21].	411
	Conclusion	412
	Misophonia screening profiles were common among	413
	participants in this online sample of Saudi adults and	414
	were characterized by strong reactions to repetitive	415
	sounds, particularly chewing and nasal sounds, with	416
	associated emotional distress, avoidance, and functional	417
	impairment. Insomnia severity was an independent	418
	predictor of greater misophonia severity, underscoring	419
	the need to assess sleep issues when assessing patients	420
	with high sound intolerance scores. The findings should	421
	be treated with care, however, due to the non-probability	422
	sampling, the cross-sectional design, self-reported	423
	measures, and the absence of a formal Arabic DVMSQ	424
	validation. There is a need for further research with	425
	representative samples and culturally valid instruments	426
	conducted over time.	427
	List of Abbreviations	428
	CI Confidence interval	429
	DVMSQ Duke-Vanderbilt Misophonia Screening	430
	Questionnaire	431
	ISI Insomnia severity index	432
	OR Odds ratio	433
	STROBE Strengthening the Reporting of Observational	434
	Studies in Epidemiology	435
	Conflict of interest	436
	The authors declare that there is no conflict of interest	437
	regarding the publication of this article.	438
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	Abdulrahman University, Riyadh, Saudi Arabia (approval/	449
	reference number: 23-1069, dated December 31, 2023.	450
	Data Availability Statement	451
	The datasets generated and/or analyzed during the current	452
	study are available from the corresponding author upon	453
	reasonable request.	454
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	<i>Supplementary content (If any) is available online.</i>	461

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