



Original Investigation

Turk Arch Otorhinolaryngol

DOI: 10.4274/tao.2026.2026-6-13

Burnout and Work Engagement among Otorhinolaryngologists in Türkiye: A Multicenter Cross-Sectional Survey

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Abstract

Objective: Burnout and reduced work engagement are recognized occupational concerns among physicians; however, specialty-specific data on otorhinolaryngology (ORL) practice in Türkiye are limited. This multicenter study evaluated burnout and work engagement among otorhinolaryngologists and examined their associations with sociodemographic characteristics and institutional settings.

Methods: This cross-sectional online survey included 120 otorhinolaryngologists working in different cities and institutional settings across Türkiye, including tertiary city hospitals, university hospitals, training and research hospitals, state hospitals, and private clinics. Burnout was assessed using the Maslach Burnout Inventory (MBI), comprising the emotional exhaustion (EE), depersonalization (DP), and personal accomplishment (PA) subscales. Work engagement was assessed using the nine-item Utrecht Work Engagement Scale (UWES-9). Multivariable median regression analyses were performed to identify factors independently associated with the study outcomes.

Results: Based on the predefined MBI thresholds, 65.8% of participants scored within the high range for EE, and 41.7% scored within the high ranges for both EE and DP. Female participants had higher EE and DP scores than male participants (both $p \leq 0.001$). Increasing age was associated with lower DP and higher PA scores. In the unadjusted analyses, physicians working in city hospitals had higher DP scores than those working in university hospitals ($p = 0.016$). In the multivariable median regression analyses, female sex was the only factor independently associated with higher EE ($p < 0.001$) and DP ($p = 0.034$) scores. The total UWES-9 score was negatively correlated with EE and DP and positively correlated with PA (all $p < 0.001$).

Conclusion: Burnout-related dimensions, particularly EE and DP, were frequently observed among otorhinolaryngologists in Türkiye. Female sex was independently associated with higher EE and DP scores. These findings highlight the need to monitor occupational well-being among ORL physicians and may inform the development of institution-level initiatives aimed at improving workplace support and organization.

Keywords: Burnout, professional, work engagement, occupational stress, otolaryngologists

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Cite this article as: Akbal Çufalı Ş, Güneş MM, Şahin ÇE. Burnout and work engagement among otorhinolaryngologists in Türkiye: a multicenter cross-sectional survey. Turk Arch Otorhinolaryngol. [Epub Ahead of Print]

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Received Date: 11.06.2026

Accepted Date: 04.08.2026

Epub: 28.09.2026



Introduction

Physicians face chronic occupational stress from multiple directions: patient volume, administrative load, high-stakes clinical decisions, and repeated exposure to distressing situations. These pressures accumulate across training and practice, and their effects on professional well-being have become increasingly difficult to ignore (1,2). Burnout has received particular attention due to its associations with job dissatisfaction, reduced empathy, intention to leave practice, and risks to the quality and safety of patient care (1-4).

Burnout is defined by three dimensions: emotional exhaustion (EE), depersonalization (DP) or cynicism, and reduced personal accomplishment (PA). Although these are sometimes discussed alongside related constructs such as compassion fatigue or compassion satisfaction, they are conceptually distinct. Using a burnout-specific instrument and interpreting its subscales separately remains important when evaluating occupational well-being in clinical populations.

Burnout captures what is depleted in professional life, whereas work engagement reflects the positive dimensions that may sustain it. Defined by vigor, dedication, and absorption, high engagement has been associated with resilience, motivation, and more sustainable professional functioning (5). Assessing both constructs together offers a more complete picture of occupational well-being than assessing either construct alone.

Surgical specialties carry a specific occupational burden: long hours, operative responsibility, urgent decisions, medicolegal exposure, and the emotional weight of high-stakes care (6,7). Otorhinolaryngology (ORL) combines this with high outpatient volume, emergency airway management, oncologic and functional surgery, and continuous patient contact across acute and chronic conditions (8). Despite this workload profile, burnout, and work engagement in otolaryngologists have received limited study. Systematic reviews of ORL trainee burnout have reported prevalence ranging from 29.7% to 86%, with female sex and working hours consistently identified as risk factors (9,10). Broader data from Türkiye show elevated burnout rates among primary care physicians, including during the pandemic period, yet specialty-specific data for ORL practitioners remain absent, and no prior study has examined institution-based differences within this specialty (11).

To our knowledge, this is the first study to assess burnout and work engagement specifically among otolaryngologists in Türkiye, with comparison across institution types. This study aimed to evaluate these dimensions using the Maslach Burnout Inventory (MBI) and Utrecht Work Engagement Scale-9 (UWES-9), and to examine their associations with sociodemographic characteristics and institution type.

Methods

This study was designed as a multicenter, cross-sectional online survey of otorhinolaryngologists practicing in Türkiye. The study was initiated after approval from University of Health Sciences Türkiye, Ankara Bilkent City Hospital Scientific and Ethical Evaluation Board for Medical Research (approval no: TABED 2/1621/2025, date: 21.01.2026).

The survey was distributed to otorhinolaryngologists across seven Turkish cities (Ankara, İstanbul, Konya, Kayseri, Kocaeli, Van, and Malatya), located in the Marmara, Central Anatolia, and Eastern Anatolia regions, encompassing tertiary city hospitals, university hospitals, training and research hospitals, secondary-care state hospitals, and private clinics. Participants were recruited through a two-stage strategy: (i) an open invitation announcement posted on the official website of the Turkish Otorhinolaryngology Head and Neck Surgery Society, followed by (ii) targeted individual outreach via instant messaging applications to otorhinolaryngologists practicing in the target institutions. The survey link was delivered through an online platform (Google Forms). A non-probability convenience sampling strategy was adopted. Rather than targeting a predetermined sample size, the study sought to recruit as many eligible otorhinolaryngologists as possible during the predefined six-month recruitment period. Accordingly, no formal a priori sample-size calculation or power analysis was performed. Given the voluntary, convenience-based recruitment, the sample was not intended to provide statistically representative estimates for the entire otorhinolaryngologist population in Türkiye. Participation was voluntary and anonymous, and informed consent was obtained electronically before participation.

ORL residents and actively practicing ORL specialists were eligible for inclusion. Participants provided sociodemographic and professional information, including age, sex, institution type, duration of professional experience, marital status, and tobacco use. Institution type was categorized as city hospital (high-volume tertiary public hospital), university hospital, training and research hospital, secondary-care state hospital, or private hospital/clinic. Professional experience was recorded as less than 1 year, 1-5 years, 6-10 years, 11-15 years, or more than 15 years. Marital status and tobacco use were also recorded using predefined categories.

Burnout was assessed using the Turkish version of the MBI, adapted and validated by Ergin (12), which includes three subscales: EE, DP, and PA (13,14). Higher EE and DP scores indicate greater burnout, whereas lower PA scores indicate a lower sense of PA. In the presented study, PA is reported in its original direction, with higher scores indicating a greater sense of PA. For descriptive purposes, MBI subscale scores were categorized using thresholds from the third edition of the MBI manual (13). These cut-offs have since been criticized

by the scale authors and removed from the fourth edition, as they were derived by splitting a normative population into tertiles rather than defining a validated clinical threshold; prevalence estimates based on them should be interpreted accordingly.

Work engagement was assessed using the nine-item UWES-9, originally developed by Schaufeli et al. (5). The scale comprises three dimensions—vigor, dedication, and absorption—with three items in each dimension. The Turkish validity and reliability of the nine-item form were evaluated by Özkalp and Meydan (15), and this validated Turkish version was used in the presented study. Subscale and total scores were calculated according to the scale structure, with higher scores indicating greater work engagement.

Statistical Analysis

Continuous variables were summarized as mean $\pm$ standard deviation or median (minimum-maximum), as appropriate, whereas categorical variables were summarized as frequencies and percentages. Normality of continuous variables was assessed using the Shapiro-Wilk test. Because the main scale scores were not normally distributed, comparisons between two groups were performed using the Mann-Whitney U test, whereas comparisons among more than two groups were performed using the Kruskal-Wallis test. When the Kruskal-Wallis test indicated an overall significant difference, post-hoc pairwise comparisons were performed using Dunn's test with Holm correction for multiple testing. Effect sizes were reported as the rank-biserial correlation (r) for Mann-Whitney U tests and eta-squared based on the Kruskal-Wallis H statistic ($\eta^2[H]$) for Kruskal-Wallis analyses. Associations between continuous variables were evaluated using Spearman's rank correlation coefficient (ρ). To identify factors independently associated with EE and DP, multivariable median regression models were constructed including sex, age, institution type, professional experience, marital status, and tobacco use as covariates. All statistical analyses were performed using R software (version 4.3.3; R Foundation for Statistical Computing, Vienna, Austria). All tests were two-sided, and a p -value <0.05 was considered statistically significant.

Results

A total of 120 otorhinolaryngologists were included. The mean age was 29.5 ± 5.32 years, and the median age was 28 years (range, 25–60 years). Seventy-three participants (60.8%) were men and 47 (39.2%) were women. Regarding institution types, 49 participants (40.8%) worked in city hospitals (high-volume public hospitals), 47 (39.2%) in university hospitals, 14 (11.7%) in training and research hospitals, 7 (5.8%) in secondary-care state hospitals, and 3 (2.5%) in private hospitals or clinics. The most common professional experience category was 1–5 years (68.3%).

The largest marital status group was single without children (52.5%). Tobacco use was reported as never used by 49.2%, formerly used by 7.5%, occasional use by 15.0%, and daily use by 28.3% of participants.

The mean MBI subscale scores were 33.4 ± 15.2 for EE, 13.3 ± 8.4 for DP, and 28.9 ± 11.0 for PA. The corresponding median scores were 33 (range, 0–54), 12 (range, 0–30), and 30 (range, 0–48), respectively (Table 1). Cronbach's alpha values were 0.941 for EE, 0.937 for DP, and 0.943 for PA, indicating high internal consistency for all three subscales.

When MBI subscores were classified according to the standard thresholds defined by Maslach et al. (13), 79 physicians (65.8%) showed high EE, 57 (47.5%) showed high DP, and 68 (56.7%) showed low PA. Fifty physicians (41.7%) met the criteria for high scores on both EE and DP simultaneously, reflecting a pattern consistent with advanced occupational burnout.

Age was not significantly correlated with EE ($\rho = -0.131$, $p = 0.153$). However, increasing age was associated with lower DP ($\rho = -0.248$, $p = 0.006$) and higher PA ($\rho = 0.237$, $p = 0.009$). In sex-based comparisons, women had significantly higher EE scores than men ($p < 0.001$, $r = 0.382$) and significantly higher DP scores ($p = 0.001$, $r = 0.290$). PA did not differ significantly between women and men ($p = 0.919$, $r = 0.010$) (Table 2).

Table 1. Participant characteristics and scale scores

Variable	n (%) or mean $\pm$ SD	Median (range)
Age, years	29.5 ± 5.32	28 (25–60)
Female sex	47 (39.2)	
Male sex	73 (60.8)	
City hospital	49 (40.8)	
University hospital	47 (39.2)	
Training and research hospital	14 (11.7)	
Secondary-care state hospital	7 (5.8)	
Private hospital/clinic	3 (2.5)	
Never used tobacco	59 (49.2)	
Former tobacco use	9 (7.5)	
Occasional tobacco use	18 (15.0)	
Daily tobacco use	34 (28.3)	
Emotional exhaustion	33.4 ± 15.2	33 (0–54)
Depersonalization	13.3 ± 8.4	12 (0–30)
Personal accomplishment	28.9 ± 11.0	30 (0–48)
UWES vigor	2.39 ± 1.51	
UWES dedication	3.16 ± 1.66	
UWES absorption	2.88 ± 1.71	
UWES total score	2.81 ± 1.43	

SD: Standard deviation, UWES: Utrecht Work Engagement Scale

Institution type was associated with differences in EE and DP scores. For EE, the overall Kruskal-Wallis test score was significant ($p=0.0445$, $\eta^2[H]=0.050$), indicating a small effect. Post-hoc pairwise comparisons for EE did not yield significant differences between groups with sufficient sample size. The private hospital/clinic subgroup ($n=3$) was excluded from pairwise comparisons due to insufficient sample size. For DP, the overall difference was also significant ($p=0.00095$, $\eta^2[H]=0.127$), indicating a medium effect. Post-hoc analysis showed that physicians working in city hospitals had higher DP scores than those working in university hospitals ($p=0.016$). PA did not differ significantly by institution type ($p=0.498$) (Table 3).

The mean UWES-9 scores were 2.39 ± 1.51 for vigor, 3.16 ± 1.66 for dedication, 2.88 ± 1.71 for absorption, and 2.81 ± 1.43 for the total UWES score. UWES scores did not

differ significantly by sex or age group. In institution-based comparisons, dedication ($p=0.024$) and total UWES score ($p=0.044$) showed significant overall differences; however, none of the pairwise comparisons remained significant after Dunn-Holm correction. Vigor and absorption did not differ significantly by institution type ($p=0.192$ and $p=0.066$, respectively) (Table 4).

UWES subscale and total scores were correlated with MBI dimensions in the expected directions. The UWES total score correlated negatively with EE ($r=-0.346$, $p<0.001$) and DP ($r=-0.393$, $p<0.001$), and positively with PA ($r=0.623$, $p<0.001$). Vigor and dedication were negatively associated with EE and DP and positively associated with PA. Absorption was positively correlated with PA but was not significantly correlated with EE or DP (Table 5).

Table 2. Associations of age and sex with Maslach Burnout Inventory subscales

Variable	Test/statistic	p-value	Direction
Age-emotional exhaustion	Spearman rho=-0.131	0.153	Not significant
Age-depersonalization	Spearman rho=-0.248	0.006	Older age, lower DP
Age-personal accomplishment	Spearman rho=0.237	0.009	Older age, higher PA
Sex-emotional exhaustion	$r=0.382$	<0.001	Higher in women
Sex-depersonalization	$r=0.290$	0.001	Higher in women
Sex-personal accomplishment	$r=0.010$	0.919	Not significant

Age associations were assessed with Spearman rank correlation. Sex comparisons were assessed with the Mann-Whitney U test; r indicates rank-biserial effect size
DP: Depersonalization, PA: Personal accomplishment

Table 3. Institution-based comparison of emotional exhaustion and depersonalization scores

Institution type	EE, median (IQR)	DP, median (IQR)
Secondary-care state hospital	30 (18-43)	8 (4.5-16.5)
Training and research hospital	40.5 (28-45)	12 (7.75-23.8)
Private hospital/clinic	2 (2-2)	1 (0.5-1)
City hospital	33 (25-51)	15 (12-22)
University hospital	31 (18-45)	9 (6-16.5)
Overall p-value	0.0445	0.00095
Effect size	$\eta^2[H]=0.050$	$\eta^2[H]=0.127$

Kruskal-Wallis test was used for overall comparisons. Dunn post-hoc tests with Holm correction were used for pairwise comparisons. The city hospital group had higher depersonalization than the university hospital group in post-hoc pairwise comparison ($p=0.016$). The private hospital/clinic subgroup ($n=3$) was excluded from pairwise comparisons

EE: Emotional exhaustion, DP: Depersonalization, IQR: Interquartile range

Table 4. Institution-based comparison of UWES-9 subscales and total score

Variable	City hospital	University	Training/research	Other	H	p-value
Vigor	2.17 ± 1.32	2.65 ± 1.43	2.93 ± 1.31	3.37 ± 1.81	4.739	0.192
Dedication	2.43 ± 1.41	3.71 ± 1.69	3.79 ± 1.11	3.87 ± 2.03	9.426	0.024
Absorption	2.29 ± 1.48	3.48 ± 1.70	3.40 ± 1.39	3.47 ± 1.84	7.185	0.066
UWES total	2.30 ± 1.25	3.28 ± 1.52	3.37 ± 1.10	3.57 ± 1.85	8.095	0.044

Values are mean $\pm$ standard deviation. Kruskal-Wallis test was used for overall comparisons. Although dedication and UWES total score showed significant overall differences, no pairwise comparison remained significant after Dunn-Holm correction. "Other" includes secondary-care state hospitals and private hospital/clinic

UWES: Utrecht Work Engagement Scale

In multivariable median regression models, female sex remained independently associated with higher EE and DP scores. For EE, female sex was associated with higher median EE [coefficient=15.62, 95% confidence interval (CI): 7.84-23.40, $p<0.001$]. For DP, female sex was significantly associated with higher median DP (coefficient=4.40, 95% CI: 0.34-8.46, $p=0.034$) (Table 6).

Discussion

This multicenter survey evaluated burnout and work engagement among Turkish otorhinolaryngologists. Using standard MBI thresholds, 65.8% of participants had high EE, 47.5% had high DP, and 41.7% met both criteria simultaneously, indicating a substantial burden of burnout among participating physicians. Increasing age was associated with lower DP, and higher PA. Female sex was independently associated with higher EE and DP in multivariable regression. In unadjusted comparisons, physicians in city hospitals showed higher DP than those in university hospitals. Work engagement correlated inversely with EE and DP, and positively with PA. Since the study population predominantly consisted of physicians in the early stages of their careers, these findings should primarily be interpreted within the context of early-career ORL practice rather than as representative of the entire ORL workforce in Türkiye.

Table 5. Correlations between UWES-9 and Maslach Burnout Inventory dimensions

UWES dimension	Emotional exhaustion	Depersonalization	Personal accomplishment
Vigor	-0.441***	-0.391***	0.539***
Dedication	-0.342***	-0.506***	0.641***
Absorption	-0.148	-0.151	0.469***
UWES total	-0.346***	-0.393***	0.623***

Values are Spearman rank correlation coefficients. Negative coefficients indicate lower burnout dimension scores with higher work engagement; positive coefficients indicate higher personal accomplishment with higher work engagement.

***: $p<0.001$, UWES: Utrecht Work Engagement Scale

These rates are consistent with the broader ORL and surgical burnout literature. Systematic reviews of ORL trainees have documented burnout prevalence of 29.7% to 86%, and the presented findings suggest that this substantial burden is also evident in a predominantly early-career ORL physician sample in Türkiye (9,10). Operative responsibility, workload, and organizational pressures create conditions for burnout rather than individual weakness (6,7). ORL adds its own pressures to this picture: emergency airway decisions, oncologic and functional surgery, high outpatient volume, and uninterrupted patient contact across both acute and chronic care. The burnout observed here is not surprising given these demands, but its prevalence warrants attention.

The simultaneous assessment of burnout and engagement produced one pattern worth noting: dedication scores were relatively higher than vigor and absorption scores, suggesting that many physicians still find their work meaningful even when energy and immersion are depleted. The correlations between UWES total score and all three MBI dimensions ran in the expected directions and were consistent with the view that engagement is not simply the absence of burnout, but a distinct positive component of occupational well-being (5).

Age associations followed a recognizable pattern. Older physicians had lower DP and higher PA, while EE showed no significant age correlation. The findings should be interpreted in light of the career-stage distribution of the sample. More than two-thirds of the participants had one to five years of professional experience with a median age of 28 years; therefore, the presented study predominantly reflects the experiences of trainees and early-career ORL physicians. This observation is consistent with previous evidence indicating that residency and the transition to independent practice represent particularly demanding stages of surgical careers. Systematic reviews of otolaryngology trainees have reported burnout prevalences ranging from 29.7% to 86%, with longer working hours, female sex, educational demands, and limited professional autonomy identified as important contributors to physician distress (9,10). Accordingly, the

Table 6. Multivariable median regression models for emotional exhaustion and depersonalization

Variable	EE Coef.	95% CI	p	DP Coef.	95% CI	p
Female sex ¹	15.62	7.84-23.40	<0.001	4.40	0.34-8.46	0.034
Age, years	0.04	-1.22-1.29	0.955	-0.40	-1.06-0.26	0.230
City hospital ²	-1.91	-11.93-8.12	0.707	3.20	-2.04-8.44	0.228
University hospital ²	1.49	-8.67-11.66	0.772	-3.00	-8.31-2.31	0.265
Training and research hospital ²	1.05	-11.65-13.75	0.870	2.40	-4.23-9.03	0.475
Professional experience ³	-3.24	-11.03-4.55	0.412	0.40	-3.67-4.47	0.846
Married ⁴	-0.71	-9.28-7.87	0.870	-0.20	-4.68-4.28	0.930
Tobacco use ⁵	-1.76	-9.26-5.74	0.642	1.00	-2.92-4.92	0.614

Multivariable median regression models. Coefficients represent the change in the median outcome relative to the reference category

¹: Reference: male sex, ²: Reference: secondary-care state hospital; the private hospital/clinic subgroup (n=3) was excluded due to insufficient sample size, ³: Reference: less than 1 year,

⁴: Reference: single, ⁵: Reference: never use. Coef.: Median regression coefficient, CI: Confidence interval, EE: Emotional exhaustion, DP: Depersonalization

associations observed between younger age, DP, and PA in the presented study may partly reflect the occupational challenges inherent to training and early career development rather than age alone. Because career stage was not evenly represented in our sample, these findings should not be interpreted as definitive differences between residents, early-career specialists, and senior specialists.

Female sex was the only independent predictor of both EE and DP in the adjusted models. Similar concerns have been reported across surgical populations. Studies examining compassion fatigue in female surgeons and pediatric surgeons have found that women are disproportionately affected by EE and secondary traumatic stress, with similar patterns described in trauma surgery populations, and burnout-specific findings in female head and neck surgeons point in the same direction (16-19). There are likely to be multiple mechanisms at play, such as role expectations, work-family conflict, sex-related professional stressors, and differences in emotional labor. However, this study was not designed to disentangle them. The presented findings suggest that female otorhinolaryngologists may carry a disproportionate burnout burden, and this observation warrants targeted attention in future research and institutional policy.

In unadjusted comparisons, physicians in city hospitals had higher DP scores than those in university hospitals, with a medium effect size. This finding should be interpreted cautiously because institution types may overlap with other factors, including career stage, workload intensity, patient volume, duty frequency, and professional autonomy. Nevertheless, the observed institution-based pattern suggests that organizational context may be relevant to physician well-being and should be examined in larger studies incorporating direct workload indicators. Because institution types may also be associated with career stages, the observed differences may partially reflect the overrepresentation of early-career physicians within some institution categories. This possibility could not be fully evaluated in the presented study and warrants investigation in future multicenter studies.

The practical implication is straightforward. Burnout at this prevalence is unlikely to be addressed by resilience training alone. Workload distribution, duty scheduling, mentorship for early-career physicians, psychosocial support, and participatory management are the kinds of structural changes that address the conditions producing burnout rather than the individuals experiencing it (20). Female physicians appear to be the group most consistently in need of such measures.

This study has several methodological strengths. The simultaneous evaluation of burnout and work engagement using validated instruments and the multicenter design—spanning seven Turkish cities and multiple institution types,

including three major tertiary city hospitals—improves the geographic and institutional diversity of the sample and provides a broad snapshot of participating ORL physicians across different healthcare settings in Türkiye. To our knowledge, this is the first multicenter assessment of burnout and work engagement focused on Turkish ORL physicians.

Study Limitations

Several limitations should also be acknowledged. The cross-sectional design precludes causal inference. The MBI cut-offs used for categorical classification were derived from the third edition of the MBI manual and have been criticized by the scale authors as statistically arbitrary, having been generated by tertile-splitting a normative population rather than by clinical validation; consequently, the prevalence figures reported here should not be read as defining clinical burnout with precision (13). Recruitment combined an open call through the national ORL society website with targeted instant-messaging outreach, which constitutes non-probability convenience sampling; the denominator of invited physicians could not be determined, and a formal response rate cannot be calculated. As participants self-selected, volunteer bias toward more engaged or more distressed physicians cannot be excluded. In addition, participating centers are located in seven cities across three of Türkiye's seven geographical regions (Marmara, Central Anatolia, and Eastern Anatolia); therefore, the geographic distribution of centers limits the generalizability of the findings to the entire country. Although multiple independent centers contributed to the sample, clustering of responses within hospitals was not modelled, which may have led to under-estimated standard errors; future analyses using multilevel models would be valuable. Furthermore, because 68.3% of participants had one to five years of professional experience, the sample disproportionately represented trainees and early-career physicians. Consequently, the results may not fully reflect the experiences of senior ORL specialists and should not be interpreted as establishing differences between residents and specialists. The private-practice subgroup ($n=3$) was too small for inferential comparison and was excluded from post-hoc analyses. Finally, workload indicators such as weekly hours, night-call frequency, and operative volume were not captured; their absence from the adjusted models represents a meaningful gap that future studies should address directly.

Future research should include larger, multicenter samples with more balanced representation of institution types and should incorporate objective or semi-objective workload indicators. Longitudinal designs would be valuable to clarify whether work engagement protects against later burnout or whether burnout reduces engagement over time. Interventional studies are also needed to test whether organizational changes can reduce burnout and improve work engagement among surgical physicians (1-20).

The institution-based differences observed in unadjusted comparisons suggest that workload and organizational variables, such as duty frequency, outpatient volume, and perceived professional autonomy, may contribute to burnout patterns. Future studies should incorporate these variables directly to clarify how institutional conditions may shape occupational well-being in ORL practice.

Conclusion

In this multicenter sample of otorhinolaryngologists in Türkiye, burnout was common, particularly in the dimensions of EE and DP. Female sex was independently associated with higher EE and DP scores. Work engagement was closely related to burnout dimensions, suggesting that occupational well-being in ORL practice should be evaluated not only through burnout but also through positive professional engagement. Given the predominance of early-career physicians in the study population, these findings are particularly relevant for physician well-being initiatives targeting residency training and the transition to independent clinical practice. These findings highlight the need for continued monitoring of physician well-being and support institution-level strategies focusing on workload organization, psychosocial support, and mentorship in ORL practice.

Ethics

Ethics Committee Approval: The study was initiated after approval from University of Health Sciences Türkiye, Ankara Bilkent City Hospital Scientific and Ethical Evaluation Board for Medical Research (approval no: TABED 2/1621/2025, date: 21.01.2026).

Informed Consent: Participation was voluntary and anonymous, and informed consent was obtained electronically before participation.

Footnotes

Authorship Contributions

Concept: Ş.A.Ç., Design: Ş.A.Ç., M.M.G., Ç.E.Ş., Data Collection and/or Processing: Ş.A.Ç., M.M.G., Ç.E.Ş., Analysis or Interpretation: Ş.A.Ç., M.M.G., Ç.E.Ş., Literature Search: Ş.A.Ç., M.M.G., Ç.E.Ş., Writing: Ş.A.Ç., M.M.G., Ç.E.Ş.

Conflict of Interest: The authors declare that they have no conflict of interest.

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

Main Points

- In this multicenter cross-sectional survey of 120 otorhinolaryngologists in Türkiye, 65.8% showed high emotional exhaustion and 41.7% met the criteria for high

scores on both emotional exhaustion and depersonalization simultaneously.

- Female sex was the only independent predictor of both emotional exhaustion and depersonalization in multivariable median regression, after adjustment for age, institution type, professional experience, marital status, and tobacco use.
- Institution-based differences in depersonalization were observed in unadjusted analyses, particularly between city hospitals and university hospitals, suggesting that organizational and workload-related factors may warrant further investigation.
- Work engagement was inversely associated with emotional exhaustion and depersonalization, and positively associated with personal accomplishment, supporting the view that engagement and burnout represent distinct but related dimensions of occupational well-being.

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