Burnout in Otolaryngology–Head and Neck Surgery: A Single Academic Center Experience

Katie Geelan-Hansen, MD1,2, Samantha Anne, MD1, and Michael S. Benninger, MD1

Abstract

Burnout in modern medicine is becoming more recognized and researched. The objective in this study is to evaluate burnout in a tertiary care academic institution and compare results among faculty, trainees, and advanced practice practitioners (APPs) in a cross-sectional survey using the Maslach Burnout Inventory. Fifty-two surveys were distributed; 44 participants completed the survey (85%): 25 staff physicians (57%), 14 resident physicians (32%), and 5 nurse practitioners (11%). Staff physicians had low emotional exhaustion, moderate depersonalization, and low result for reduced personal accomplishments; trainees reported low emotional exhaustion, high depersonalization, and moderate reduced personal accomplishment; and nurse practitioners reported moderate on all 3 dimensions. There is overall low burnout in this tertiary care academic center of otolaryngologist providers and no difference in rates among the different groups (trainees, APPs, staff). Measures addressing specific deficiencies among dimensions of burnout would be helpful to prevent disintegration of physician satisfaction into burnout.

Keywords

burnout, otolaryngology–head and neck surgery, workplace fatigue, burnout in surgery, burnout in otolaryngology, resident burnout

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Burnout syndrome is characterized by emotional exhaustion, depersonalization, and low personal accomplishment.1 The Maslach Burnout Inventory (MBI) is a validated tool to evaluate burnout.1 In a 2009 study from the American College of Surgeons, nearly 40% of respondents met criteria for burnout.2 A 2011 study found burnout in 41% of otolaryngology–head and neck surgeons.3

Methods

Staff physicians, resident physicians, and physician extenders at the department of otolaryngology–head and neck surgery at a tertiary care academic center were surveyed (Appendix 1, available in the online version of the article) after approval by the Cleveland Clinic Institutional Review Board.

Part 1 of the survey used the validated 22-item MBI. Part 2 of the survey included 6 nonvalidated questions regarding provider well-being.

Data from completed questionnaires were analyzed. Frequencies of individual responses were recorded, and quantitative results were summarized as mean ± standard deviation (SD). Groups of respondents by type of provider or experience level were compared with categorical responses using Fisher’s exact or chi-square tests and with quantitative variables using the Kruskal-Wallis test. Associations among quantitative variables were assessed using Spearman correlations. A significance level of .05 was used for individual results.

Results

Fifty-two surveys were distributed and 44 completed (85%): 25 staff physicians (57%), 14 resident physicians (32%), and 5 nurse practitioners (11%).

MBI

Overall mean ± SD emotion exhaustion (EE) was 15.7 ± 8.6, depersonalization (DP) was 12.6 ± 7.6, and reduced personal accomplishment was 39.5 ± 7.0. Results indicate low emotional exhaustion, high depersonalization, and moderate reduced personal accomplishment. No subject responded with high risk in all dimensions. Ten (23%) reported moderate and/or high risk in all dimensions: 6 (24%) staff physicians, 1 (7%) physicians in training, and 3

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nurse practitioners. Sixteen (36%) reported 2 categories in the moderate and/or high range: 7 (28%) staff physicians and 9 (34%) physicians in training. Eighteen (41%) reported low risk in 2 categories: 12 (48%) staff physicians, 4 (29%) physicians in training, and 2 (40%) nurse practitioners. Overall, there was no statistical difference between each provider group in MBI results (see Tables 1 and 2).

**Provider Well-Being**

Adding to a full schedule and/or having a full schedule was reported as a daily occurrence in 48% of staff physicians (see Table 3). Fifty-two percent of staff, 93% of resident physicians, and 40% of nurse practitioners report daily logging on to a computer to check work-related material after the workday and on weekends. Routine work-related items were completed after work hours daily in 40% of staff physicians and 79% of resident physicians. One or more missed social or family activities were reported in 43% of staff physicians and 64% of physicians in training; 40% of nurse practitioners reported never missing social or family events due to work. Overall, 72% of staff physicians and 85% of nurse practitioners agree or strongly agree that they are satisfied with their career. There was no difference in satisfaction per years in practice.

Individual statistical analysis was completed to evaluate relationships (Spearman correlation) in emotional exhaustion, depersonalization, and reduced personal accomplishment with the provider well-being survey. There were not strong correlations between the individuals who responded high in EE or DP with the sense of being overscheduled, checking on or completing work after the work day, or missing social/family events.

**Discussion**

In this single-institution study, there was low emotional exhaustion, high depersonalization, and moderate reduced personal accomplishment. This would suggest that the providers do not meet the definition of burnout but manifest borderline burnout.

When the groups are categorized by role in department, the staff physicians had low emotional exhaustion, moderate depersonalization, and low reduced personal accomplishment. These findings are similar to a study in 2011 from the University of Iowa Hospital and Clinics otolaryngology alumni, which reported low emotional exhaustion, moderate depersonalization, and low reduced personal accomplishment.4

When looking closely at years in practice, the physicians who had been practicing for >10 years were at low risk for burnout. This is consistent with other findings that as self-efficacy increased, burnout decreased and those at risk of burnout tended to be the younger physicians and those in few years in practice.4-6

Overall, resident physician report low emotional exhaustion, high depersonalization, and moderate reduced personal accomplishment. This is not consistent with high burnout but borderline. In a study in 2007, the authors suggest that the 80-hour workweek could be protective for burnout.7

Most staff physicians and nurse practitioners report job satisfaction regardless of years in practice. Consistent with other reports of the effects of burnout, there is a negative correlation between emotional exhaustion and career satisfaction.2 Here staff and resident physicians reported that low emotional exhaustion, a workplace environment of high support, and workplace justice are associated with a decrease in emotional exhaustion.8 High job demand, low job control, and high workload have been noted risks for emotional exhaustion.8 A workplace with high workload and low job control also has a relationship with depersonalization and reduced personal accomplishment.8

This study indicates a low burnout profile in a single institution similar to a previously published single-institution study; however, this contrasts with national studies that indicate higher burnout.2,3,4,7 Additional studies from individual institutions may be able to further evaluate

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**Table 1. Scoring Used for the Maslach Burnout Inventory Survey Results.**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Emotional Exhaustion</th>
<th>Depersonalization</th>
<th>Personal Accomplishment</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;17 low burnout</td>
<td>&lt;5 low burnout</td>
<td>&gt;40 low burnout</td>
<td></td>
</tr>
<tr>
<td>18-29 moderate burnout</td>
<td>6-11 moderate burnout</td>
<td>34-39 moderate burnout</td>
<td></td>
</tr>
<tr>
<td>&gt;30 high burnout</td>
<td>&gt;12 high burnout</td>
<td>&lt;33 high burnout</td>
<td></td>
</tr>
</tbody>
</table>

**Table 2. Summary of the Maslach Burnout Inventory Results per Section in Each Group of Respondents.**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Overall (P Value) (N = 44)</th>
<th>Staff (n = 25)</th>
<th>Residents (n = 14)</th>
<th>APP (n = 5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional exhaustion</td>
<td>15.68 (.6)</td>
<td>15.32</td>
<td>15.21</td>
<td>18.8</td>
</tr>
<tr>
<td>Depersonalization</td>
<td>12.61 (.25)</td>
<td>11.16</td>
<td>15.86</td>
<td>10.8</td>
</tr>
<tr>
<td>Personal accomplishment</td>
<td>39.52 (.47)</td>
<td>40.56</td>
<td>38.36</td>
<td>37.60</td>
</tr>
</tbody>
</table>

Abbreviation: APP, advanced practice practitioner.
burnout over large national surveys that are subject to nonresponse selection bias.

Conclusion
Here is a tertiary care academic center of otolaryngologist providers with low rates of burnout but with individual dimensions of high depersonalization and moderate reduced personal accomplishment. Measures addressing these specific deficiencies would be helpful to prevent disintegration into burnout.

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Author Contributions
Katie Geelan-Hansen, substantial contribution in concept/design, acquisition, analysis of data, drafting, final approval; Samantha Anne, contribution in concept/design, analysis, drafting, final approval; Michael S. Benninger, contribution in analysis, revision, final approval.

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Supplemental Material
Additional supporting information is available in the online version of the article.

References


