Headache in medical residents: association with residency program and neuropsychiatric aspects

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Background
Although a common complaint and related to factors frequently present in medical residency as psychological distress, depression and anxiety, headache is an issue poorly explored amongst medical residents.

Methods
This was a cross-sectional study enrolling medical residents from all geographic regions of Brazil. We applied an online structured survey with demographic and residency program-related questions, as well as validated tools to assess burnout, diurnal somnolence, anxiety, depression and migraine. Data was analyzed with multivariate logistic regression models.

Results
The link to the survey received 1,989 individual clicks, of which 1,421 individuals completed the questionnaire (71.4%). Residents from 50 of the 55 (90.9%) available medical specialties responded this survey. Sixty-one percent were women, median age was 28yo (IQR=27-30), and the median post-graduation year was 2 (IQR=1-3). Prevalence of at least one headache attack in last three months was 1,236/1,419 (87.1%); migraine occurred in 400/1,419 (28.2%). Frequent headache attacks (headaches occurring daily or often) occurred in 508/1,419 (35.8%) of respondents and were associated with female sex (OR=1.80 [95%CI=1.36-2.37]), substantial weight gain (1.93 [1.38-2.70]), migraine (5.49 [4.16-7.24]), anxiety (1.45 [1.06-1.98]), depression (1.98 [1.47-2.67]), emotional exhaustion domain of burnout (1.49 [1.09-2.04]), and diurnal somnolence symptoms (1.32 [1.00-1.76]). At least one headache with functional impact in the last three months occurred in 634/1,419 (44.7%) and were associated with female sex (1.39 [1.10-1.74]), clinical training areas (1.32 [1.06-1.65]), anxiety (1.74 [1.38-2.21]), a unsatisfactory work-life balance (1.57 [1.17-2.09]), emotional exhaustion component of burnout (1.49 [1.14-1.94]), and an unsatisfactory subjective learning curve (1.30 [1.02-1.67]). Migraine was associated with female sex (3.10 [2.34-4.13]), anxiety (2.53 [1.94-3.31]), more than 60h dutyhours in residency (1.66 [1.29-2.15]), moral abuse from patients (1.42 [1.06-1.90]) and a clinical training area (1.34 [1.04-1.73]).

Conclusion
Headaches amongst medical residents are frequent and related to depression, anxiety, burnout and diurnal somnolence, but also to aspects closely related to residency training such as the occurrence of mistreatment, longer duty-hour, poor work-life balance, and unsatisfactory learning curve.

Keywords: Migraine disorders, Burnout, Work-life balance, Harassment, Depression, Anxiety, Learning curve, Diurnal somnolence