Original Research

Burnout among Moroccan Oncologists: A National Survey

Zineb Benbrahim1, Aballi Ibtihal1, Raihana Boujarnija1, Mariam Atassi2, Lamiaa Amaadour1, Karima Oualla1, Samia Arti1, Samira El Fakir2, Nawfel Mellas1
1Department of Medical Oncology, Hassan II University Hospital, Faculty of Medicine and Pharmacy of Fez, Sidi Mohamed Ben Abdellah University, Fez, Morocco, 2Department of Epidemiology, Faculty of Medicine and Pharmacy of Fez, Sidi Mohamed Ben Abdellah University, Fez, Morocco

Abstract

Introduction: Burnout is an unwanted outcome of chronic occupational stressors. Oncology staff is expected to suffer from burnout more than other health-care professionals. The aim of this survey was to determine the prevalence of burnout among Moroccan oncologists and to determine potential causal factors.

Methods: We conducted a cross-sectional analytical study using an online self-administered questionnaire to oncologists in Morocco. We used the Maslach Burnout Inventory and additional questions exploring work and lifestyle factors. The questionnaire was sent in January 2018.

Results: A total of 100 oncologists answered the questionnaire with predominance of women (75%), young participants (74%), and medical oncologists (60%). Eighty-five percent of the oncologists showed evidence of burnout. The rates of high scores of emotional exhaustion, depersonalization, and low scores of personal accomplishment were, respectively, 57%, 44%, and 56%. In the univariate linear analysis, age younger than 35 years (p = 0.014), being in residency training (p = 0.004), not having extra professional activities (p = 0.009), having an experience less than 10 years (p = 0.02) and estimating vacation time as not adequate (p = 0.05) were all significantly associated with increased burnout scores. In the multivariate analysis, only age <35 years (p = 0.028), being in residency training (p = 0.026), and having an experience less than 10 years (p = 0.01) were independent risk factors of burnout.

Conclusion: These findings reveal that burnout in oncologists is higher than those reported internationally. Multidimensional interventions should be implemented to reduce burnout rates among Moroccan oncologists.

Keywords: Burnout, Morocco, oncologists, residency

INTRODUCTION

Burnout is an unwanted outcome of chronic occupational stressors. It is characterized by emotional exhaustion (EE) (due to job demand and continuous stress), feelings of depersonalization (DP) ( impersonal response toward the service recipients), and a loss of personal accomplishment (PA) (degree of personal satisfaction with work).

Burnout has multiple negative consequences. It deteriorates the mental and physical health of the physicians. In addition, several studies found that burnout induces health-care absenteeism, increases prescription errors, and reduces the medical care quality.

Evidence shows moderate-to-high estimates of burnout among health-care professionals in Arab countries. No data exist in the published literature on burnout in African and Arab oncologists. These latter are expected to be at high risk of burnout because of the high workload, the limited resources, the constant management of the treatment toxicities, and the regular communication of bad news to patients.

The aim of this survey was to investigate the burnout prevalence and explore the factors associated with burnout among oncologists in Morocco.

METHODS

This is a cross-sectional survey, by an online self-administered questionnaire. The link of the survey was sent...
The questionnaire was voluntary without any incentive. The oncologists responded the survey online without sending back the responses to the investigators ensuring complete anonymity of the survey. Thus, participants’ consents were not required in this study.

The first part of the questionnaire comprised general information including sex, age range, title (resident, specialist or professor), hospital practice type (university hospital, regional cancer center, or private center), and the workload estimated by the number of patients seen per week.

The second part explored lifestyle (living alone, being in relationship, having children, having physical activity, etc.) and work factors (having good work life balance, adequate vacation time, access to psychological support). The third part was reserved for the burnout evaluation according to the Maslach Burnout Inventory (MBI) as detailed by Maslach.[6] The MBI has three subscales—EE, DP, and PA. Each subscale is assessed by several items. For each item, there is a 7-point Likert scale which ranges from never (0) to every day (6). We summed the score of each subscale for every participant. Higher score means greater burnout for EE and DP and lesser for PA.

One reminder was sent to all potential participants and the final analysis was completed within three months following their distribution. The questionnaire responses were recorded and analyzed by the Statistical Package for the Social Sciences software version 20.0 for Windows (IBM, Armonk, NY).

We used logistic regression analysis to assess the effect of factors on the presence of burnout. A value of $p < 0.05$ was considered statistically significant. Variables associated with burnout in the regression analysis were included in the multivariable analysis. All levels of burnout were considered statistically significant. Variables associated with the participation rate was 25%. Sixty percent of respondents were medical oncologists and 40% were radiation oncologists. We noted a female predominance (75%). Seventy-five percent of the participants were under 35 years old. Two thirds of the participants were working in a university hospital (62%). Seventy-nine percent of participants were married, 62% had children, and 8% only were living alone. Fifty-four percent of the respondents had regular physical activity. However, 15% only had extraprofessional activities.

The majority of participants had less than 10 years experience in oncology. Twenty percent of respondents considered themselves as having a good work life balance and only 3% felt they had sufficient vacation time. All the cancer centers where the respondents are working do not offer psychological support services for doctors.

Eighty-five percent of the oncology professionals showed evidence of burnout. The rates of high scores of EE, DP, and low scores of PA were, respectively, 57%, 44%, and 56%. The frequency of each subscale burnout is presented in Table 1.

In the univariate linear analysis, age younger than 35 years ($p = 0.014$), being in residency training ($p = 0.004$), not having extra professional activities ($p = 0.009$), having an experience less than 10 years ($p = 0.02$), and estimating vacation time as not adequate ($p = 0.05$) were all significantly associated with increased burnout scores.

In the multivariate analysis, only age <35 years ($p = 0.028$), being in residency training ($p = 0.026$), and having an experience less than 10 years ($p = 0.01$) were independent risk factors of burnout. Demographics, lifestyle, professional characteristics, and results of the univariate and multivariate analyses are shown in Table 2.

**Discussion**

**Prevalence of burnout in Moroccan oncologists**

This study concluded to high frequency of burnout among oncologists in Morocco. The 85% prevalence found here exceeds the results of similar studies conducted in other Arab countries.[7-9] Actually, among 348 physicians in Saudi Arabia from different non-oncological specialities, 70% were burnout.[9] Oncologists work more hours than physicians in most other disciplines[10] and are consequently supposed to be at high risk of burnout. However, in a large-scale American Society of Clinical Oncology (ASCO) survey including more than 1400 US oncologists, the reported prevalence (approximately 45%)[11] was similar to

| Table 1: Prevalence of burnout subscale rates among Moroccan oncologists |
|---------------------------------|-----------------|-----------------|-----------------|
| Emotional exhaustion (EE)       | Depersonalization (DP) | Personal accomplishment (PA) |
| $N$ (%)                         | $N$ (%)          | $N$ (%)          |
| Low level                       | 16 (16)          | 27 (27)          | 56 (56)         |
| Moderate level                  | 27 (27)          | 29 (27)          | 24 (24)         |
| High level                      | 57 (57)          | 44 (44)          | 20 (20)         |

[86] Global Journal on Quality and Safety in Healthcare • Volume 2 • Issue 4 • October-December 2019
that of US physicians overall. Of note, the participation rate in this study, as in the present survey, did not reach 50% raising a high probable response bias.

serious consequences from oncologists’ burnout may impact negatively the quality of the patients care with an increase of the absenteeism rates and prescription errors. There are
also personal complications of burnout such as depression and suicide.\textsuperscript{13} This emphasizes the need of recognizing and controlling the factors associated with this burden.

In this study, burnout was strongly related to a variety of personal and professional characteristics on univariate analysis: younger age, being in residency, having an experience less than 10 years in oncology, having extra-professional activities, and estimating vacation time as adequate. However, only younger age, being in residency, and short-term experience in oncology were independently associated with burnout risk on multivariable analysis.

The strong relationship between younger age and burnout has been reported in previous studies.\textsuperscript{11,13} It has been suggested that older health-care professionals cope with stress more easily. Indeed, in a large European Society for Medical Oncology survey collected from 737 oncologists younger than 40 years, 71\% of respondents showed evidence of burnout confirming the high prevalence of burnout among the youth.\textsuperscript{13} Likewise, in the ASCO survey, the odds of burnout decreased by approximately 4\% with each additional year in the age of participants. Younger age was the only demographic factor independently associated with risk of burnout in the same study.

In addition to young age, being in residency training is another factor that was associated with career unsatisfaction among physicians in general. An Egyptian study interested to job-related stress among academic careers concluded that residents and assistant lecturers were potentially more prone to higher burnout levels because of the high demands placed on them, the high workload, and a perceived mismatch between effort and reward.\textsuperscript{14}

Number of years in practice was also associated to burnout in the literature. The Saudi Arabian survey stated earlier concluded to an inverse association between this syndrome and number of years in practice. The odds of burnout increased significantly with each five years in less in practice.

Limitations of this study were the low response rate, response bias as people who feel strongly about the topic are more likely to reply, and finally the noninclusion of some characteristics in the survey and subsequently in the analysis like the distance from home to work, the number of hours per week spent performing work tasks at home, and focusing clinical practice on a specific type of cancer.

CONCLUSION AND PROPOSED INTERVENTION

In conclusion, the prevalence of burnout in Moroccan oncologists was higher than those reported internationally. The results of this survey highlight the need for assistance of the cancer care providers. Multidimensional interventions will help to reduce burnout rate among Moroccan oncologists. It should start by making the program directors aware of the burnout burden. Then, include interventions such as restricting the number of working hours, organizing stress-management workshops especially for residents and younger oncologists, and promoting financial reward of oncologists both in private and public sectors.

Financial support and sponsorship

The authors disclosed no financial support related to this article.

Conflicts of interest

The authors disclosed no potential conflicts of interest related to this article.

REFERENCES

1. Dyrbye LN, Thomas MR, Massie FS, et al. Burnout and suicidal ideation among U.S. medical students. Ann Intern Med 2008;149:334-41.
2. Kang EK, Lihm HS, Kong EH. Association of intern and resident burnout with self-reported medical errors. Korean J Fam Med 2013;34:36-42.
3. Williams ES, Konrad TR, Scheckler WE, et al. Understanding physicians’ intentions to withdraw from practice: the role of job satisfaction, job stress, mental and physical health. 2001. Health Care Manag Rev 2010;35:105-15.
4. Dewa CS, Loong D, Bonato S, et al. The relationship between resident burnout and safety-related and acceptability-related quality of healthcare: a systematic literature review. BMC Med Educ 2017;17:195.
5. Elbarazi I, Loney T, Youssef S, et al. Prevalence of and factors associated with burnout among health care professionals in Arab countries: a systematic review. BMC Health Serv Res 2017;17:491.
6. Maslach C, Jackson S, Leiter M. Maslach Burnout Inventory manual. 3rd ed. Palo Alto, CA: Consulting Psychologists Press; 1996.
7. Shams T, El-Masry R. Job stress and burnout among academic career anaesthesiologists at an Egyptian university hospital. Sultan Qaboos Univ Med J 2013;13:287-95.
8. Al-Dubai SA, Rampal KG. Prevalence and associated factors of burnout among doctors in Yemen. J Occup Health 2010;52:58-65.
9. Aldrees TM, Aleissa S, Zamakhshary M, et al. Physician well-being: prevalence of burnout and associated risk factors in a tertiary hospital, Riyadh, Saudi Arabia. Ann Saudi Med 2013;33:451-6.
10. Leigh JP, Tancredi D, Jerant A, et al. Annual work hours across physician specialties. Arch Intern Med 2011;171:1211-3.
11. Shanafelt TD, Gradishar WJ, Kosty M, et al. Burnout and career satisfaction among US oncologists. J Clin Oncol 2014;32:678-86.
12. Shanafelt T, Dyrbye L. Oncologist burnout: causes, consequences, and responses. J Clin Oncol 2012;30:1235-41.
13. Banerjee S, Califano R, Corral J, et al. Professional burnout in European young oncologists: results of the European Society for Medical Oncology (ESMO) young oncologists committee burnout survey. Ann Oncol 2017;28:1590-6.
14. Mohammed KA, Ali EG, Youssef IM, et al. Burnout and personality among Egyptian residents. Arab J Psychiatry. 2013;24:148-60.