



## BURNOUT IN PRIMARY HEALTH CARE PHYSICIANS: A PILOT STUDY

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### Abstract

The aim of this study is to determine the prevalence of burnout among physicians of primary health care. A survey was conducted to measure burnout among a sample of primary care practitioners. The questionnaire included demographic details and the Maslach Burnout Inventory (MBI). The score of each subscale of MBI was considered separately.

A survey was conducted among 240 physicians; 184 physicians responded to the survey (76.7% response rate) and 134 questionnaires were analyzed. Among participating physicians women were more frequent (89.6%); mean age was 48.9 years. Physicians of narrow specialization made 36.6%, 34.4% physicians were therapists, 18.7% were pediatricians and 10.4% were general practitioners and worked in a rural environment.

In terms of burnout, 32.8% of respondents had a high score for emotional exhaustion (EE), 49.3% had a high score for depersonalization (DP), 48.5% had a low score for professional accomplishment (PA). High scores for burnout in all three dimensions were recorded in 16.4% of respondents. The mean score was 24.3 (SD: 5.8) on EE subscale, 10.1 (SD: 3.3) on DP subscale and 33.7 (SD: 4.4) on the PA subscale.

The results of this research revealed that two-thirds of respondents in this study are high burnout affected.

**Keywords:** burnout, prevalence, primary health care.

### INTRODUCTION

Burnout is a psychological term for the experience of long-term emotional and mental exhaustion and diminished interest. Job-related "burnout" has been identified as an occupational hazard for various professionals involved in people-oriented services. It most frequently affects human service professionals, like educators, job nurses and physicians, due to chronic emotional and interpersonal job related stressors [Soler J. et al., 2008].

Burnout was described in 1974 by H. Freudenberger as a syndrome in its own right, being "a group of symptoms that occur together and constitute a recognizable condition" [Freudenberger H., 1974]. Later C. Maslach and her col-

league S. Jackson were the first to identify the structure of "burnout" in the 1976s. They developed criteria to weigh the effects of emotional exhaustion and reduced sense of personal accomplishment. The most frequently cited definition of burnout is that of a syndrome consisting of three components, namely emotional exhaustion, depersonalization, and lack of personal accomplishment. The most well-studied measurement of burnout in literature is the Maslach Burnout Inventory (MBI). This indicator has become the standard tool for measuring burnout in research on the syndrome [Maslach C., Jackson S., 1986].

Factors related to burnout amongst professionals, including doctors, embrace situational factors (organizational commitment and hierarchy, absence of job resources, overload, role conflict and ambiguity, poor career progression and lack of feedback) and individual characteristics (demographic variables, personality characteristics,

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job satisfaction and lack of social support), with the effect of the situational factors being stronger [Beemsterboer J., Baum B., 1984; Maslach C., Goldberg J., 1998; Maslach C. et al., 2001].

Burnout is frequent among physicians, with rate ranging from 25% to 76%, depending on the working conditions and medical specialty. The research indicates general practitioners have the highest proportion of burnout cases [Kirwan M., Armstrong D., 1995; Goebbring C. et al., 2005; Soler J. et al., 2008].

Therefore we attempt to examine the prevalence of burnout in a sample of Armenian physicians, in particular among those who are involved in the primary health care system.

## MATERIAL AND METHOD

To evaluate the prevalence of burnout in Armenian physicians, a survey was conducted among doctors of primary health care (policlinics) during the autumn of 2009, and a questionnaire was used as a tool. Random, non-stratified sample was selected. The questionnaire included questions regarding the age, gender, marital status, years since qualification as a doctor, years in current workplace, earning, workplace conditions, (rural/urban setting), working conditions (working hours per day, patients per day, night shifts). The second part of questionnaire involved the MBI (Valid Russian version), which was used to measure burnout.

The MBI consists of 22 items each scored from "0" to "6". These items contribute to three subscales, namely:

- *emotional exhaustion* (EE) with nine questions and maximal score 54;
- *depersonalization* (DP) of five questions and maximal score 30; and
- *personal accomplishment* (PA: eight questions; maximal score 48).

The score of each subscale being considered separately, three scores were calculated for each respondent. Up to one missing response per dimension of burnout in the MBI instrument was

replaced with the average score of the rest of respondent's responses for that dimension. If more than two responses were missing for any dimension, the score for that dimension was replaced with a "missing value" code recognized as such by SPSS.

Descriptive statistics was used to present the proportion of respondents who scored as high burnout, average burnout or low burnout in each dimension, with the 95% confidence interval (CI).

The MBI section of the questionnaire was internally validated by calculating a Cronbach's alpha coefficient for each dimension for Armenian and Russian translation of the questionnaire. The Cronbach's alpha for EE, DP and PA in the translated version was all high: at 0.7, 0.8 and 0.7, respectively.

The statistical processing of the obtained data was done using Microsoft Excel XP and Statistical Package for Social Sciences (SPSS) 12.0 for Windows.

Ethical approval: The purpose of this research was explained to each participant and his verbal consent was received for voluntary participation in the survey. The study received approval from the Yerevan State Medical University ethics committee.

## RESULTS AND DISCUSSION

Totally 240 questionnaires were distributed; 32 were not returned, 24 had missing data and were not used (response rate: 76%). Of 184 available questionnaires, 50 had to be excluded as the respondents worked in the secondary health care system, leaving questionnaires for further analyses. Among the respondents 14 physicians (10.4%) were males and 120 physicians (89.6%) were females. The 134 respondents had a mean age of 48.9 years (SD: 11.9 years).

The analysis of data obtained from the survey shows that 36.6% of physicians had a narrow specialization, 34.4% physicians were therapists, 18.7% were pediatricians and 10.4% were general practitioners and worked in a rural environment.

Table 1.

Frequency distributions of physician by degree of burnout

Degree of Burnout	EE		DP		PA	
	absolute number	%	absolute number	%	absolute number	%
High	44	32.8	66	49.3	65	48.5
Average	79	59.0	55	41.0	51	38.1
Low	5	3.7	8	6.0	14	10.4
Missing value	6	4.5	5	3.7	4	3.0
Total	134	100	134	100	134	100

Table 2.

Frequency distribution of respondents by presence of high burnout score

High burnout	absolute number	%
No dimension	26	19.4
One dimension	43	32.1
Two dimensions	29	21.7
All three dimensions	22	16.
Missing value	14	10.4
Total	134	100

Most of the respondents (53.0%) had graduated 20 years prior to filling in the questionnaire and 8.2% had graduated 4 years before. On the average, physicians worked 6 hours per day (SD: 2.6 hours) and saw 13 patients per day (SD: 8 patients).

MBI scores were output in the three dimensions of burnout: EE, DP, and PA. *Exhaustion* corresponds to feeling of being emotionally overwhelmed and exhausted by one's work and is generally referred to as emotional exhaustion. *Depersonalization* refers to an impassive and impersonal response toward recipients of one's service, care, treatment, or instruction. Lack of *personal accomplishment* reflects the feeling of reduced competence and successful achievement in one's work with people. Burnout differs from depression because it involves only a person's relationship to his or her work, whereas depression globally affects a person's life.

The analysis of the survey shows that the 79.8% of respondents answered all 22 items of the MBI, 13 respondents had only 1 missing point, 4 respondents had 2 missing points, and 10 respondents 3 to 12 missing points.

The mean score on the EE subscale was 24.3 (SD: 5.8), on the DP subscale: 10.1 (SD: 3.3), on the PA subscale: 33.7 (SD: 4.4). Our results

are comparable with the data of research conducted among European family physicians [Solter J. et al., 2008].

The three dimensions of burnout were transformed into dummy categorical variables for high, average and low burnout in the dimensions of EE, DP and PA as recommended by C. Maslach (EE: low burnout  $\leq 13$ , average burnout 14-26, high burnout  $\geq 27$ ; DP: low burnout  $\leq 5$ , average burnout 6-9, high burnout  $\geq 10$ ; PA: high burnout  $\leq 33$ , average burnout 34-39, low burnout  $\geq 40$ ).

Table 1 reflects the frequency distributions of

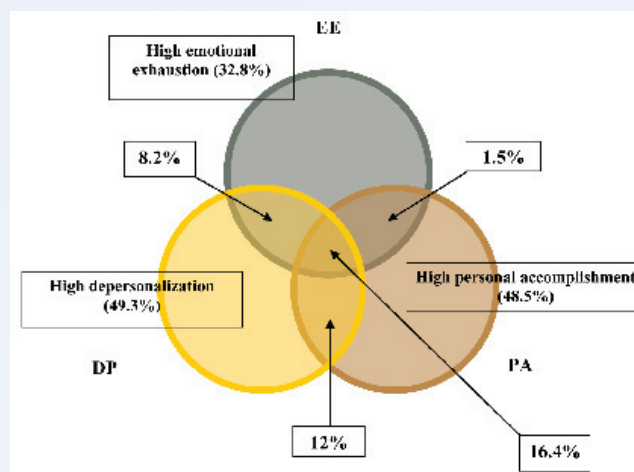


Figure. Frequency distribution of respondents by presence of high burnout score

respondents by degree of burnout (high, average or low) in the three dimensions (EE, DP, PA). In all, 32.8% respondents scored high for EE, 49.3% for high DP, and 48.5% for high PA.

Table 2 and the Figure below give the frequency distribution of respondents by presence of high burnout score in none (0), one or more of the three dimensions. The analyses of the BMI revealed that 16.4% of respondents scored high for burnout in all three dimensions. Only 19.4% of doctors did not score high for burnout in any dimension, whilst 21.7% scored high for burnout in at least two dimensions.

## CONCLUSION

Thus, analyzing results of the survey carried out among physicians of primary health care, we can draw a conclusion that burnout seems to be a common problem with high levels apparently affecting two-thirds of respondents in this study. Future research is required to explore the problem in depth, develop models to describe the phenomenon and identify causative factors and effective intervention strategies. n

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