

# Prevalence of Worker Burnout and Psychiatric Illness in Primary Care Physicians in a Health Care Area in Madrid

A. Molina Sigüero,<sup>a</sup> M.A. García Pérez,<sup>a,b</sup> M. Alonso González,<sup>c</sup> and P. Cecilia Cermeño<sup>a,d</sup>

**Aim.** To analyze worker burnout and the prevalence of psychiatric illness among primary care physicians, and to determine how burnout is related with sociodemographic and work-related factors.

**Design.** Cross-sectional, descriptive study.

**Setting.** Primary care centers in Area 8, Madrid (central Spain).

**Subjects.** All 244 physicians (family medicine and pediatrics) who provided care at centers in Area 8 at the time of the study.

**Method.** Anonymous, self-administered questionnaire that included the Maslach Burnout Inventory (worker burnout); GHQ-28 (possible mental illness); survey of sociodemographic and work-related factors, unhealthy behaviors, use of medications, and perceived quality of care and risk of medical errors in relation with work-related pressures; open question regarding causes of work-related stress.

**Results.** Response rate, 80.3%. Burnout was detected in 69.2% of the physicians (95% CI, 62.1%-75.4%) and was severe in 12.3%. The prevalence of possible psychiatric illness was 36.7%. Burnout was found to be related with possible psychiatric illness ( $P < .01$ ); perception that work-related pressures frequently led to diminished quality of care and medical errors ( $P < .01$ ); permanent employment status ( $P < .05$ ); more than 1700 patients on the patient list ( $P < .05$ ); age between 37 and 46 years ( $P < .01$ ) and patient load of 35 to 47 patients/day ( $P < .05$ ).

**Conclusions.** The prevalence of worker burnout and possible psychiatric illness was high, and the two variables were related. A large percentage of participants perceived that work-related pressures diminished the quality of care provided.

**Key words:** Worker burnout. Medical practice. Psychiatric illness. General health questionnaire.

PREVALENCIA DE DESGASTE PROFESIONAL Y PSICOMORBILIDAD EN MÉDICOS DE ATENCIÓN PRIMARIA DE UN ÁREA SANITARIA DE MADRID

**Objetivo.** Analizar el desgaste profesional y la prevalencia de psicomorbilidad entre facultativos de atención primaria (AP) y determinar su relación con aspectos sociodemográficos y laborales.

**Diseño.** Estudio transversal y descriptivo.

**Emplazamiento.** Centros de AP del Área 8 de Madrid.

**Sujetos.** Los 244 médicos y pediatras con labor asistencial en dicha área en el momento de realizarse el estudio.

**Método.** Cuestionario anónimo autoadministrado que incluye: el Maslach Burnout Inventory (mide el desgaste profesional); el GHQ-28 (detección de una posible enfermedad mental); encuesta sobre datos sociodemográficos, laborales, conductas no saludables, consumo de medicamentos y percepción de calidad de la asistencia y riesgo de errores médicos en relación con la presión en el trabajo, y pregunta abierta sobre las causas de estrés laboral.

**Resultados.** La tasa de respuesta fue del 80,3%. Está afectado por *burnout* el 69,2% (IC del 95%, 62,1-75,4%) de los facultativos, un 12,3% de ellos, de forma aguda. La prevalencia de posible psicomorbilidad es del 36,7%. Se encontró una asociación del desgaste profesional con los siguientes aspectos: una posible psicomorbilidad ( $p < 0,01$ ); la percepción de que la presión en el trabajo produce con frecuencia una disminución de la calidad y la precipitación de errores médicos ( $p < 0,01$ ); tener plaza en propiedad ( $p < 0,05$ ), más de 1.700 pacientes en el cupo ( $p < 0,05$ ), una edad de 37 y 46 años ( $p < 0,01$ ) y una presión asistencial de 35-47 pacientes/día ( $p < 0,05$ ).

**Conclusiones.** Existe una elevada prevalencia de desgaste profesional y de posible psicomorbilidad, apareciendo ambas variables relacionadas. Se percibe en un elevado porcentaje que la presión del trabajo ha hecho disminuir la calidad de la asistencia prestada.

**Palabras clave:** Desgaste profesional. *Burnout*. Práctica médica. Psicomorbilidad. GHQ.

Spanish version available at

[www.atencionprimaria.com/84.480](http://www.atencionprimaria.com/84.480)

A commentary follow  
this article  
(pág. 572)

<sup>a</sup>Médico de Familia, Centro de Salud Presentación Sabio, Área 8 de Atención Primaria, Madrid, Spain.

<sup>b</sup>Fundación CESM, Madrid, Spain.

<sup>c</sup>Técnico de Salud, Gerencia del Área 8 de Atención Primaria, Madrid, Spain.

<sup>d</sup>Asociación Profesional Médica de Madrid (CESMADRID), Madrid, Spain.

Correspondence:  
Antonio Molina Sigüero.  
C/ Alfonso XII, 8.  
28670 Villaviciosa de Odón,  
Madrid, Spain.  
E-mail: acyamolinas@tiscali.es

Manuscript received 28 October 2002.

Manuscript accepted for  
publication 11 December 2002.

## Introduction

Burnout syndrome, described by Freudenberg en 1974,<sup>1</sup> consists of a progressive loss of energy in workers in the helping professions, with resulting changes in behavior. Maslach and Jackson<sup>2,3</sup> developed this concept, and defined its three characteristic dimensions: emotional exhaustion (EE), i.e., loss of emotional resources to face work; depersonalization (DP) or the appearance of negative attitudes and cynicism toward service receivers; and diminished sense of personal accomplishment (PA) or a tendency to evaluate ones own work negatively, with low professional self-esteem.

In Spain, «worker burnout syndrome» or «burned-out worker» are the expressions used most often to refer to this phenomenon,<sup>4,5</sup> which appears to be emerging as a public health problem among Spanish health care professionals.<sup>6-12</sup> Among other consequences, behavioral changes, declining health, the appearance of unhealthy life habits and defensive attitudes, and increased absenteeism have been reported.<sup>4,5</sup> These changes can lead to decreased efficiency, increased costs and worse quality of care.<sup>13-16</sup> To date, the relationships between worker burnout syndrome and employee health or quality of primary health care have been insufficiently investigated. In addition, studies of the associations with sociodemographic or employment-related variables (age, time in current job, patient load and duration of contact with each patient), which have traditionally been associated with the appearance of burnout syndrome, have yielded contradictory results.<sup>17</sup>

The main aims of this study were to determine the prevalence and distribution of worker burnout syndrome among primary care practitioners in a health care area in Madrid, and to quantify its associations with decreased levels of mental health among practitioners, and practitioners' perceptions of quality of care. We also set out to evaluate the relationships between burnout and sociodemographic and work-related variables.

## Subjects and methods

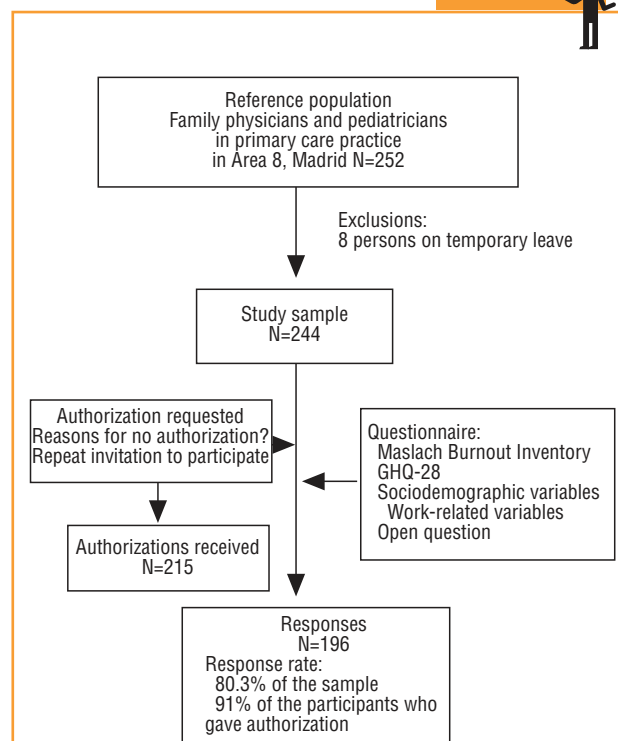
### Participants

The study population consisted of 244 family physicians and pediatricians in practice in Primary Care Area 8 in Madrid (central Spain) during the period from April to June, 2001. As exclusion criteria we used residency (as opposed to permanent employment at the center) and temporary sick leave.

### Data collection

The study was done with an anonymous, self-administered questionnaire sent via the health system's internal mail network. Before the questionnaires were delivered, a cover letter was sent to request written authorization to be included in the study. The reasons for nonauthorization were investigated in telephone inter-

## Material and methods



## General scheme of the study

Cross-sectional, descriptive study with an anonymous, self-administered questionnaire returned by post, with telephone reminders.

views. One collaborator at each participating center provided assistance with the study, and telephone reminders were also used. The questionnaire contained the following parts:

- *Maslach Burnout Inventory*<sup>18</sup> (MBI), Spanish version,<sup>19</sup> which evaluates worker burnout in the EE, DP and PA dimensions. The results are recorded as three numerical variables (one for each dimension) with the following cut-off values: low EE≤18, moderate EE 19–26, high EE≥27; low DP≤5, moderate DP 6–9, high, DP≥10; low PA≤33, moderate PA 34–39, high PA≥40 (in contrast to the other two scales, higher PA scores indicate increasingly favorable responses).
- The General Health Questionnaire (GHQ-28), validated by Lobo et al,<sup>20</sup> which measures recent changes in mental health. It consists of 4 subscales (somatic symptoms, anxiety and insomnia, social dysfunction and severe depression), and is useful for detecting possible nonpsychotic psychiatric disorders. This instrument is scored as a continuous variable, with a cut-off score of 5/6 (values≥6 are considered positive).<sup>21</sup>
- A specially designed questionnaire with items about sociodemographic characteristics, training, job characteristics, time at

current job, workload, temporary incapacity, unhealthy habits, use of medication, and professionals' perception of the influence of work-related pressures on the quality of care.

– An open question asked professionals to list, in order of decreasing importance, 10 work-related problems identified as causing or triggering stress. The number of times each problem was mentioned was recorded as a weighted value determined by its position in the list (10 points for factors listed as the most important, 1 point for those listed as the least important).

Two pilot studies were done, and no problems were observed with comprehension of the questionnaire items.

### Data analysis

The data were entered in a DBASE IV database and analyzed with the SAS statistical software package. To compare the main characteristics of the sample with the population of family physicians and pediatricians in Health Care Area 8, we used a secondary source of data provided by the administrative offices of Area 8. Mean values and standard deviations are reported for variables in the EE, DP and PA dimensions, and the percentage of subjects with high levels of burnout is given for each dimension. We compared means or percentages (or both) for the presence or absence of burnout in each category with Student's *t* test or the chi-squared test as appropriate. To evaluate trends we used the Cochran-Armitage trends test. Stepwise logistic regression was used to evaluate the relationship between burnout and other variables with a possible causal role.

## Results

Of the 244 physicians who received the questionnaire, 196 responded (response rate 80.3%). There were no statistically significant differences in the demographic or social and employment-related characteristics of workers who responded and the population of all physicians in Area 8 in Madrid (Table 1).

Table 2 shows the levels of worker burnout in each of the three dimensions. High levels of burnout according to at least one dimension were found in 69.2% (95% CI, 62.1%–75.4%) of the participants; burnout in two dimensions was seen in 33.8% (95% CI, 27.2%–40.9%); and evidence in all three dimensions was seen in 12.3% (95% CI, 8.1%–17.9%).

The proportion of «possible psychiatric cases» was 36.7% (95% CI, 30.0%–43.9%).

The levels of psychiatric illness were significantly higher (50%) in practitioners with burnout (Table 3). The prevalence of psychiatric illness increased ( $P < .001$ ) together with the number of dimensions that showed evidence of burnout. The presence of burnout was also associated with a greater use of anal-

**TABLE 1**  
**Sociodemographic and work-related characteristics in subjects who responded to the questionnaire and in all primary care physicians practicing in Area 8**

	Total participants (n=196) <sup>a</sup>	Reference population in Area 8 <sup>b</sup>
Age, years <sup>c</sup>	41.1±8.0	43.4±9.0
Men	40.0%	43.3%
Married or long-term relationship	72.3%	–
Family medicine practice	78.6%	77.7%
Specialized training (MIR)	63.4%	–
Urban district	87.2%	80.6
Permanent post	45.6%	52.8%
Primary care team	94.4%	91.6
Morning shift	49.0%	50.8
Years in the profession <sup>c</sup>	12.6±8.5	–
Years in current post <sup>c</sup>	5.4±5.5	4.7±4.6
Teaching center	36.2%	34.9%
More than 14 staff members per primary care team	61.7%	60.3%
Patient load		
Family medicine <sup>c</sup>	45.4±10.3	42.1
Pediatrics <sup>c</sup>	29.5±8.5	28.0
Number of patients on the physician's list		
Family medicine	1892.2±325.0	1831
Pediatrics	1004.1±210.0	926
Hours of care/day (last 2 months) <sup>c</sup>	5.5±1.2	–
Hours in training courses (preceding year) <sup>c</sup>	75.2±120.9	–
Permanent position	91.9%	–

<sup>a</sup>Data from the questionnaire.

<sup>b</sup>Data provided by the administrative offices of primary care Area 8 in Madrid.

<sup>c</sup>Mean±standard deviation. Other values are given as percentages.

gesics, antidepressants and anxiolytics, and with a higher percentage of sick leave because of psychiatric illness.

The age group most significantly affected by burnout, especially in the DP dimension, was 37–46 years. Patient load, when categorized as low to high, was not directly pro-

**TABLE 2**  
**Levels of burnout: mean values in three dimensions for all responding physicians (N=196)**

	Low level % (95% CI)	Moderate level % (95% CI)	High level % (95% CI)	Mean value <sup>a</sup>
Emotional exhaustion	31.3% (25.0–38.4)	26.1% (20.2–33.0)	42.6% (35.6–49.9)	25.1±11.5
Depersonalization	38.5% (31.7–45.8)	26.1% (20.2–33.0)	35.4% (28.8–42.6)	8.2±5.5
Personal accomplishment	38.4% (31.6–45.7)	32.3% (25.9–39.4)	29.3% (23.1–36.3)	35.2±7.7

<sup>a</sup>Data are means±standard deviation.

Values considered to indicate burnout are shown in *italics*.

**TABLE 3**

**Relationship between impaired health (GHQ-28), absenteeism, unhealthy life habits, use of medication and perception of working conditions in the responding population and the population with burnout**

	Total surveyed (N=196)	High EE (N=83)	High DP (N=69)	Low PA (No.=73)	Worker burnout <sup>a</sup> (N=135)
GHQ-28 <sup>b</sup>	5.3±6.6	9.0±7.0***	7.2±7.3**	7.9±7.4***	6.8±6.8***
Positive GHQ	36.4%	63.9%***	49.2%**	54.8%***	48.9%***
Smoking	29.2%	28.9%	20.3%*	27.4%	26.7%
Coffee	15.6%	19.3%	14.5%	23.3%*	16.3%
Alcohol	58.0%	62.7%	62.3%	65.8%	59.3%
Antidepressants/Anxiolytics					
Frequently+regular treatment	7.8%	14.5%**	10.1%	9.7%	9%
Analgesics					
Frequently+regular treatment	26.1%	37.4%**	24.6	31.5%	31.1%*
Sick leave>15 days (last 2 years)	12.9%	14.5	10.1%	9.6%	13.3%
Sick leave for psychiatric illness	2.1%	4.8%*	1.5%	2.7%	
Risk of medical error					
Frequently+always	28.7%	45.8%***	49.3%***	38.4%*	35.6%**
Diminished quality of care					
Frequently+always	44.1%	63.4%***	58.0%**	57.5%**	53.0%***

<sup>a</sup>Indications of burnout in at least 1 dimension: EE or DP or PA. <sup>b</sup>Mean±standard deviation. All other values are given as percentages

\*P<.05; \*\*P<.01; \*\*\*P<.001. EE indicates emotional exhaustion; DP, depersonalization; PA, personal accomplishment

portional to burnout; however, moderate or high patient loads of between 35 and 47 patients/day for family physicians and between 30 and 40 patients/day for pediatricians were associated with significantly more burnout ( $P<.01$ ) and emotional exhaustion (Table 4). According to the bivariate analysis, professionals who work in an urban setting and those with a permanent post also showed a higher prevalence of burnout. Pediatricians who spent more hours per day at work showed higher levels of emotional exhaustion ( $P<.01$ ).

The multivariate analysis showed that worker burnout was associated with a permanent post and with practice as part of a primary health care team. Multivariate logistic analysis showed the following associations between burnout and the different subscales: for EE, years at the current post (more than 5 years) and number of patients in the patient list (more than 1700 patients); for DP, age group 37-46 years. For low PA, after possible mental illness was controlled for, being a pediatrician was associated with greater burnout, but when mental illness was not controlled for, years in current practice (more than 5 years) was associated with low PA (Table 5).

Slightly more than one-third of the physicians (36.8%) perceived that work-related pressures diminished the quality of the care they provided frequently, and 7.3% felt that this factor always reduced their quality of care. The risk of medical errors was perceived as frequent by 30%, and as permanent by 0.5%. Differences were found between workers with burnout (42.5% felt that work-related pressures frequently diminished the quality of care, and 10.5% per-

cent felt that this factor always diminished quality of care) versus those without burnout (23.7% and 0% respectively,  $P<.05$ ) (Table 3).

The response rate to the open question regarding the causes of work-related problems or stress was 68.4% (167 of 196 participants). The problem mentioned most often was clearly excessive workload (excessive patient load or patient lists that were too long) (Table 6).

## Discussion

The high response rate in the present study (80.3%), along with the absence of significant differences between the responding population and the reference population, and the fact that the reasons for declining to participate in the study failed to detect clear differences between responders and nonresponders, suggest that our results are generalizable to all primary care physicians in Area 8 in Madrid.

We found a high prevalence of burnout (69.2%) that was slightly higher than the figure reported in other Spanish studies.<sup>6,8-10</sup> The prevalence of probable psychiatric illness detected with the GHQ (36.7%) was much higher than the figure reported in studies of the general population, and was at the upper end of the range found for the population of users of primary care services.<sup>22-26</sup> Burnout and psychiatric illness were related in a directly proportional manner. A significant proportion of physicians, especially among those with burnout, perceived their workload to diminish the quality of care they provided (in consonance

**TABLE 4** Distribution of variables related with burnout in different dimensions of burnout

	Total (N=196)	High EE (N=83)	High DP (N=69)	Low PA (N=73)	Worker burnout <sup>a</sup> (N=135)
Age group					
≤36 years	34.4%	30.1%	26.1%	27.4%	29.6%
>36 to ≤46 years	43.1%	48.2%	55.1%	50.7%	49.6%
>46 years	22.6%	21.7%	18.8%	21.9%	20.7%
District					
Urban	12.8%	10.8%	10.1%	6.9%	9.6%
Rural	87.2%	89.2%	89.9%	93.1%	90.4%
Hours of practice					
≤6	83.3%	79.5%	85.3%	84.9%	83.6%
>6	16.7%	20.5%	14.7%	15.1%	16.4%
Years in practice					
<5 years	18.5%	15.7%	15.9%	9.6%	17.0%
≥5 to <10 years	21.0%	23.0%	17.4%	23.3%	20.0%
≥10 to <20 years	39.0%	37.4%	46.4%	46.6%	42.2%
≥20 years	21.5%	24.1%	20.3%	20.6%	20.7%
Years in current practice					
<5 years	55.9%	49.4%	53.6%	46.6%	51.1%
≥5 to <10 years	20.5%	22.9%	20.3%	23.3%	23.7%
≥10 years	23.6%	27.7%	26.1%	30.1%	25.2%
Permanent post	45.6%	50.6%	52.2%	54.8% *	51.1% *
Practice organized as:					
Team model	94.4%	97.6%	95.7%	97.3%	96.3%
Traditional model	5.6%	2.4%	4.3%	2.7%	3.7%
Number of patients in the physician's list					
≤1700	41.2%	28.9%	34.8%	41.7%	38.1%
>1700	58.8%	71.1%	65.2%	58.3%	61.9%
Patient load <sup>b</sup>					
Low	28.7%	19.2%	21.7%	31.5%	27.4%
Moderate-high	42.6%	55.4%	53.6%	46.6%	48.2%
High	28.7%	25.3%	24.6%	21.9%	24.4%

<sup>a</sup>Evidence in at least one dimension of burnout: emotional exhaustion or depersonalization or personal accomplishment. <sup>b</sup>Categories of patient load (number of patients/day). For family physicians: low: <35; moderate/high: ≥35 to ≤47; very high: >47. For pediatricians: low: ≤30; moderate/high: >30 to ≤40; very high: >40.

\*  $P<.05$ ; \*\*  $P<.01$ ; \*\*\*  $P<.05$  Cochran-Armitage trends test. EE indicates emotional exhaustion; DP, depersonalization; PA, personal accomplishment.

with the results of another study of residents in the USA<sup>27</sup>), and possibly to induce medical errors. These findings illustrate a worrying situation in primary care, which not only affects the quality of life of its practitioners, but may also compromise the quality and efficiency of care. A large majority of workers believe that the heavy workload, defined as an excessive patient load or patient list, is the main cause of stress in the workplace. This is consistent with other studies that included an open question similar to the one we used at the end of our questionnaire. Although we found a relationship between size of the patient list (more than 1700 patients) and higher levels of

burnout, the relationship we found between patient load (per day) and burnout was not linear, making it difficult to explain the relationship. It may be that there is a threshold number of patient contacts above which physicians stop trying to maintain effective control, or our findings may simply reflect the difficulty of measuring the physician's workload with quantitative indicators such as patient load. Because the relationship between workload and level of burnout has been clearly established in other professions,<sup>28</sup> and appeared in another Spanish study,<sup>10</sup> efforts will be needed to test better instruments for measuring the workload of primary care physicians.

**TABLE 5** Multivariate analysis of burnout in relation to predictive variables

	Reference level	Wald $\chi^2$	$P>\chi^2$	Odds ratio
<i>Model 1: models the probability of emotional exhaustion</i>				
Intercept	–	25.93	0.000	–
Size of list:				
	≤1700 patients	6.26	0.012	2.6
	>1700 patients			
Years in practice				
	<5 years	5.39	0.020	1.7
	5-10 years			
	>10 years			
GHQ-Possible mental illness	Negative GHQ test: GHQ<6 points	37.30	0.000	9.3
Positive test				
	Level of patient load: low and very high*	5.62	0.018	2.3
	Moderate/high			
<i>Model 2: models the probability of depersonalization</i>				
Intercept	–	14.43	0.000	–
GHQ-Possible mental illness:	Negative GHQ test: GHQ<6 points	5.32	0.021	2.1
Positive test				
Age group	≤36 years	4.64	0.031	2.0
>36 to ≤46 years	> 46 years			
<i>Model 3: models the probability of low personal accomplishment</i>				
Intercept	–	15.33	0.000	–
GHQ-Possible mental illness:	Negative GHQ test: GHQ<6 points	16.63	0.000	3.7
Positive test				
Specialty:	Family medicine	5.02	0.025	2.3
Pediatrics				
<i>Model 4: models the probability of worker burnout in any dimension</i>				
Intercept	–	4.93	0.026	–
GHQ-Possible mental illness:	Negative GHQ test: GHQ<6 points	21.5	0.000	9.7
	Yes			
Team model	Traditional model	5.49	0.019	5.8
Permanent post	Any other type of post: temporary, substitute, etc.	4.92	0.026	2.2

\*Levels of patient load (patients/day): For family physicians: low: <35; moderate/high: ≥35 to ≤47; very high: >47. For pediatricians: low: ≤30; moderate/high: >30 to ≤40; very high: >40

Our study provides new information of relevance to the debate on factors that may cause or modulate the appearance of worker burnout syndrome. The findings confirm that practitioners who hold a permanent post are more susceptible (probably because of their lack of expectations for further professional advancement),<sup>6,10,27</sup> as are those who have held their current job for more time. Our results suggest a possible influence of size of the patient list on the fact that burnout is less prevalent in rural practices. The relationship between burnout and age showed a parabolic relationship; this may explain the discrepancies—possibly reflecting differences in the cut-off points used to

determine age groups—between our findings and those of other studies.<sup>6,8,10,12,21,29</sup>

Further studies are needed to identify modifiable factors that influence the high prevalence of burnout among primary care physicians, and that go beyond previously proposed, traditional models of causation. Changes in the health system, the uncertainties change brings,<sup>30</sup> policies aimed at budgetary restrictions, and increased demands by the user population, together with decreasing professional autonomy and recognition,<sup>30-33</sup> may be behind the high prevalence of burnout. More specific factors such as lack of motivation,<sup>34</sup> lack of opportunities for promotion, diffi-

**TABLE 6****Open question: problems with a weighted value greater than 100 points or that were mentioned by at least 20 respondents**

Problem	Total (N=196)			With burnout (N=116)			Without burnout (N=51)		
	Rank order	% responses <sup>a</sup>	Weighted mean <sup>b</sup>	Rank order	% responses <sup>a</sup>	Weighted mean <sup>b</sup>	Rank order	% responses <sup>a</sup>	Weighted mean <sup>b</sup>
Excessive patient load or too many patients on list	1st	76.7%	7.3	1st	75.0%	7.1	1st	80.4%	7.8
Insufficient time	2nd	31.1%	2.69	2nd	31.9%	2.7	3rd	29.4%	2.5
Excessive bureaucracy at the center	3rd	31.1%	2.4	3rd	30.2%	2.3	2nd	33.3%	2.7
Lack of substitute staff	4th	19.8	1.4	4th	19.8%	1.4	5th	19.6%	1.3
Abuse of access by users	5th	16.2%	1.35	6th	18.1%	1.5	10th	11.8%	1.0
Emergency service (including house calls) during the work shift at the center	6th	15.6%	1.2	8th	15.5%	1.1	8th	15.7%	1.3
Lack of team spirit, poor communication	7th	16.2%	1.2	10th	15.5%	1.1	6th	17.7%	1.3
Inadequate motivation	8th	18.0%	1.2	11th	14.7%	1.1	4th	25.5%	1.5
Problems with communication and coordination with specialized care	9th	15.0%	1.1	7th	16.4%	1.3	12th	11.8%	0.7
Demanding/problematic users	10th	15.0%	1.07	9th	15.5%	1.1	9th	13.7%	1.0
Lack of training (often related with problems with access to employment)	11th	15.6%	1.06	5th	19.0%	1.3	16th	7.8%	0.6
Problems related with administration (lack of staff, errors, lack of coordination)	12th	15.6%	1.0	14th	14.7%	0.98	7th	17.7%	1.2
Problems with coordination with nursing	13th	12.6%	0.95	12th	14.7%	1.1	19th	7.8%	0.5
Little recognition by other professional sectors (directors, specialists)	14th	12.6%	0.86	13th	14.7%	1.0	20th	7.8%	0.5
Excessive accumulation of tasks (primary care as a catch-all).	15th	10.8%	0.76	15th	11.2%	0.8	13th	9.8%	0.6
Lack of support from directors	16th	9.0%	0.68	16th	10.3%	0.8	22nd	5.9%	0.4
Excessively long waiting lists	17th	9.0%	0.6	17th	8.6%	0.7	15th	9.8%	0.5

<sup>a</sup>Percentage of participants who mentioned this factor, referred to the total number of respondents.<sup>b</sup>Mean weighted value for each response (see subjects and methods).**Discussion**  
**Key points****What is known about the subject**

- Burnout syndrome is an independent illness that is highly prevalent among Spanish physicians.
- The influence of sociodemographic and work-related variables on its distribution is unclear, as is its relationship with health in health care workers and the quality of primary care.
- The effect of different causal factors involved in the appearance of burnout should be determined.

**What this study contributes**

- We found a high prevalence of burnout and psychiatric illness among primary care workers; the relationship between the two variables was directly proportional.
- We found a significant perception of loss of quality in care and risk of medical errors in relation with work-related pressures, especially among workers with burnout.
- Burnout was found to be related with the number of patients on the physician's list and with the number of years in the current practice. In contrast to earlier studies, we found that the relationship between burnout and age was parabolic.

culties with high-quality continuing education, and excessive administrative burdens at health centers – factors which are more amenable to change – should be considered top priorities for prompt examination and correction. Changes in modifiable features of primary care that lessen worker burnout would not only mean better quality of life and improved health for practitioners, but might also help to improve the quality of care, to enhance the capacity of primary care to provide solutions to patients' problems and prevent unnecessary referrals, to decrease absenteeism and its attendant costs, and to generally improve the efficiency of the use of available resources. .

## Acknowledgements

We would like to express our sincerest appreciation to all family physicians and pediatricians who participated in the study, which was made possible by their generous cooperation. We also thank the administrative offices of Health Area 8 in Madrid for their support.

## References

- Freudenberger HJ. Staff Burnout. *J Soc Iss* 1974;30:159-65.
- Maslach C, Jackson S. Lawyer burnout. *Barrister* 1978;5:52-4.
- Maslach C. Burnout: a social psychological analysis. En: Jones JW, editor. *The burnout syndrome*. California: Berkely University of California, 1981.
- Daniel Vega E. Estudio del síndrome de desgaste profesional entre los médicos de un hospital general [tesis doctoral dirigida por los Dres Pérez Urdániz y Fernández Canti]. Salamanca: Universidad de Salamanca, 1995.
- Mingote JC, Pérez F. El estrés del médico. Madrid: Ed. Díaz de Santos, 1999.
- Prieto L. Burnout en médicos de atención primaria. *Aten Primaria* 2001;28:444-5.
- Cebriá J, Segura J, Corbella S, Sos P, Comas O, García M, et al. Rasgos de la personalidad y *burnout* en médicos de familia. *Aten Primaria* 2001;27:459-68.
- De las Cuevas C, de la Fuente JA, Alviani M, Ruiz-Benítez A. Desgaste profesional y clima laboral en Atención Primaria. *Mapfre Medicina* 1995;6:7-18.
- Belloch SL, Renovell V, Calabuig JR, Gómez L. Síndrome de agotamiento profesional en médicos residentes de especialidades médicas hospitalarias. *An Med Interna* 2000;17:118-22.
- Prieto L, Robles E, Salazar LM, Daniel Vega E. *Burnout* en médicos de atención primaria de la provincia de Cáceres. *Aten Primaria* 2002;29:294-302.
- Hidalgo I, Díaz RJ. Estudio de la influencia de los factores laborales y sociodemográficos en el desarrollo del síndrome de agotamiento profesional en el área de medicina especializada del INSALUD de Ávila. *Med Clin (Barc)* 1994;103:408-12.
- Orlowski JP, Gullede AD. Critical care stress and burnout. *Crit Care Clin* 1986;2:173-81.
- Donabedian A. Promoting quality through evaluating the process of patient care. *Medical Care* 1968;6:181-201.
- Atance JC. Algunas aproximaciones al síndrome de *burnout* en profesionales sanitarios. *Medicina del Trabajo* 1996;5:337-43.
- De Pablo R, Suberviola JF. Prevalencia del síndrome de *burnout* o desgaste profesional en los médicos de atención primaria. *Aten Primaria* 1998;22:580-4.
- Olivar C, González S, Martínez MM. Factores relacionados con la satisfacción laboral y el desgaste profesional en los médicos de atención primaria de Asturias. *Aten Primaria* 1999;24:352-9.
- Merín J, Cano A, Miguel JJ. El estrés laboral: bases teóricas y marco de intervención. *Ansiedad y Estrés* 1995;1:113-30.
- Maslach C, Jackson SE. *Maslach burnout inventory*. Manual Research Edition. University of California. Palo Alto: Consulting Psychologist Press, 1986.
- Álvarez E, Fernández L. El síndrome de *burnout* o el desgaste profesional (I): revisión de estudios. *Rev Asoc Neuropsiq* 1991; 11:257-65.
- Lobo A, Pérez-Echeverría MJ, Artal J. Validity of the scaled version of the General Health Questionnaire (GHQ-28) in a spanish population. *Psychol Med* 1986;16:135-40.
- Banks MH. Validation of the general health questionnaire in a young community sample. *Psychol Med* 1983;13:349-53.
- Rajmil L, Gispert R, Roset M, Muñoz PE, Segur A, Equipo de la Encuesta de Salud de Catalunya. Prevalencia de enfermedad mental en población general de Catalunya. *Gac Sanit* 1998;12:153-9.
- Vázquez-Barquero JL, Díez JF, Peña C, Aldama J, Samaniego C, Menéndez J, et al. A community mental health survey in Cantabria: a general description of morbidity. *Psychol Med* 1987;17:227-41.
- Muñoz PE. Estudio de validación predictiva del General Health Questionnaire (GHQ) en población general urbana (expediente 93/0905). *Anales del Fondo de Investigaciones Sanitarias* 1993. Madrid: Fondo de Investigación Sanitaria; 1993, p. 221.
- Chocrón L, Vilalta J, Lagazpi I, Auquer K, Franch L. Prevalencia de psicopatología en un centro de Atención Primaria. *Aten Primaria* 1995;16:586-93.
- Herrán A, Vázquez-Barquero JL, Artal J, García J, Iglesias C, Montejo J, et al. El reconocimiento de la enfermedad mental en Atención Primaria y sus factores determinantes. *Actas Esp Psiquiatr* 1999;27:87-95.
- Shanafelt TD, Bradley KA, Wipf JE, Back AL. Burnout and self-reported patient care in an internal medicine residency program. *Ann Intern Med* 2002;136:358-67.
- Maslach C, Schaufeli WB, Leiter MP. Job burnout. *Annu Rev Psychol* 2001;52:397-422.
- Atance JC. Aspectos epidemiológicos del síndrome de burnout en personal sanitario. *Rev Esp Salud Pública* 1997;71:293-303.
- Dworkin RW. The Cultural revolution in health care. *The Public Interest* 2000; 139. Disponible en: [www.thepublicinterest.com](http://www.thepublicinterest.com), sección «Archive», 2000.
- Linzer M, Visser MR, Oort FJ, Smets EM, McMurray JC, Hays HC. Predicting and preventing physician burnout: results from the United States and the Netherlands. *Am J Med* 2001;111:170-5.
- Gervás J, Hernández LM. La autoestima de los médicos y la reforma sanitaria. *Med Clin (Barc)* 1994;103:421-2.
- Campbell DE, Sonnad SS, Ejhauser FE, Campbell KK, Greenfield LJ. Burnout among american surgeons. *Surgery* 2001;130:696-705.
- Simó J, Chinchilla N. Motivación y médicos de familia (II). *Aten Primaria* 2001;28:668-73.

## COMMENTARY

# Chronic Distress and Worker Burnout: Hypotheses About Causes and Classification

J. Cebrià Andreu

ABS Granollers Sud, ICS, FPCE Blanquerna, Universitat Ramon Llull, Barcelona, Spain.

Increasing concern over worker burnout among family physicians is no coincidence. The so-called burnout syndrome is increasingly described as the greatest threat to the health of practitioners in the helping and human service professions. It affects their health, quality of life and performance, and therefore has serious repercussions on the community. A burned out physician with persons under his or her care is not likely to uphold the quality standards that society requires.

The current debate, which has spread from scientific circles to more politicized arenas, should therefore come as no surprise. Because of its complexity and the controversy over an operative definition, the syndrome remains obscure. Moreover, its continuous spread is turning it into a tremendous threat to society.

The article by Molina, García, Alonso and Cecilia provides new information that helps clarify some points in the debate, and also gives rise to some reflections on certain issues. The data in the article that follows are a clear indication that we are facing a real problem of notable proportion. Prevalences range from 25% in earlier Spanish studies to nearly 70% in the study by Molina et al.

However, we must first ask exactly what burnout, or worker burnout syndrome, is. Do we really know? What hypotheses are now being examined regarding causes and diagnoses? Do all persons with high scores on the Maslach Burnout Inventory have burnout? Very succinctly, I will try here to comment on some of the most controversial issues relating to burnout.

It has become a cliché that burnout is poorly defined. We know it exists, that it is widespread in advanced western societies, that it is a multidimensional concept, and that it is a product of chronic stress. Beyond these considerations, the data are contradictory. Maslach describes six major interrelated areas considered simultaneously the cause and the consequence of deep social changes, and which help to understand the causes of burnout: workload, reward systems, control over the work, social support, degree of fair-

## Key points

- Although hard to define, burnout exists and is widespread.
- Burnout results from chronic distress experienced mainly (although not exclusively) at work.
- It is a multidimensional construct that involves personal, organizational and sociocultural factors.
- Emotional exhaustion probably occurs before burnout is established.
- Constant features are lack of energy, and emotional and cognitive exhaustion.
- Cynicism, disengagement and personal withdrawal are constant features.
- Burnout should perhaps be included in a broadly-defined category of symptoms, together with other hitherto unrelated disorders defined in the DSM-IV and CIE-10.

ness in treatment by the organization, and values. Of these factors, the main element is probably the issue of values. Social changes and the appearance of new values that clash with those commonly held in the helping professions (productivity, efficiency, profitability and control are gaining in consideration, while altruism and self-sacrifice are losing ground) have gradually undercut the sense of «pride of practice» in medicine. These subtle but powerful changes have led to the emergence of considerable ten-

sions in all members of society – tensions which weigh twice as heavily on the professionals who care for these individuals. This situation has other repercussions, such as management styles that tend to increase workloads. Overwork, and especially lack of time for patients, are the elements most clearly involved as the direct causes of burnout in our health care setting. The article by Molina et al. confirms once again that burnout is closely related with size of the patient list or number of patients seen per day, and in general, with inefficiency in the running of primary care practices.

Studies of burnout face considerable problems with psychometrics. As noted, worker burnout is measured basically with the Maslach Burnout Inventory (MBI), designed more than 20 years ago by Jackson and Maslach. This instrument consists of three scales, only one of which – emotional exhaustion – has performed well. The significance and applicability of the other two scales – depersonalization and personal accomplishment – are questionable. We are measuring a phenomenon with an instrument that is highly sensitive but not very specific, which detects, basically, situations of emotional stress – and perhaps not all emotional stress constitutes burnout. This may explain the discrepancies in the prevalence reported by different authors in Spain. Problems with definitions have become so intractable as to lead some researchers to attempt other, more operative approaches. For example, the Shirom-Melamed Burnout Model (S-MBM) instrument measures three different scales: physical fatigue, emotional exhaustion and cognitive weariness, which are clearly more homogeneous in conceptual terms. Other questionnaires have been used, but in all of them emotional exhaustion remains at the core of the syndrome.

The first impression one has when the pieces of this puzzle are assembled is that burnout syndrome exists as a broad nosological entity, with symptoms that range from subtle to dramatic. According to earlier authors, even a single scale for emotional exhaustion can comprise many degrees, from cases of mild stress to situations that presage complete burnout. The first stage, which may include a considerable proportion of workers, could be called the *discouraged care-provider* phenomenon. This might not in itself be a pathological situation, but rather an entity more appropriately analyzed as a socio-cultural or organizational problem. This problem is characterized by pervasive feelings of dissatisfaction and distress, basically caused by conflicts between the day-to-day working conditions for care providers and their individual expectations. However, other social factors related with changing values in society also contribute to tension in ones personal and professional life, as noted above. This context is an excellent facilitator of worker demotivation, a state which opens the door to long-term burnout.

In more advanced cases, burnout can be described as a psychopathological entity. As shown by Molina et al., these persons suffer from a concomitant mental condition, a notion compatible with the reported prevalence of around 30%. Anxiety and symptoms of dysthymia suggest a chronic adaptive disorder traceable to work-related problems, although interesting hypotheses have also arisen from disorders that are related, to some extent. In fact, some authors have reported cases of burnout in non-work-related situations, i.e., in athletes or marriages. By analogy to the situation in the laboratory described in experimental animals with learned helplessness syndrome, burnout in its most serious form can be linked to situations that are too adverse for adaptation to be possible, and that have serious consequences for the organism, including, naturally, the brain. Constant, intense distress may make it more likely that the body's own neurohormonal coping responses will lead to organic changes that include cerebral malfunction. Analyses at the cellular level have implicated the synaptic depletion of certain neurotransmitters, especially dopaminergic and endorphin receptors.

These psychological and physiopathological factors are probably common to a series of disorders, and thus suggest a hypothesis that includes within a single, broad category, a dimension that might be called neurasthenic syndrome, characterized by poor hedonic tone, sleep alterations, distress and physical and mental numbing, avoidance behaviors, high levels of anxiety and lack of energy. These features are accompanied by a greater or lesser degree of withdrawal in facing obligations and everyday tasks. This spectrum of symptoms includes many of the so-called somatomorphic disorders, certain types of depression related to adaptive disorders, chronic dysthymia and dysphoria, chronic fatigue syndrome, fibromyalgia, episodes of somatization, and naturally what we now call advanced phases of burnout. This proposal undeniably requires further study, but it opens up an interesting avenue of research on these currently poorly understood illnesses.

Much research remains to be done, and in this commentary I have pointed out some areas where progress is needed. Operative definitions are necessary to build more valid instruments that distinguish more clearly between burnout and other emotional reactions to stress. It is also necessary to identify those areas in the health care system that pose the greatest danger to employees' health, and establish strategies for improvement. Little information is available on the direct and indirect social costs arising from the exposure of such a high percentage of physicians to a degree of stress that is, in the long term, unendurable. One more area of clinically-oriented work should investigate the relationships between mental disorders and burnout, and between the latter and other problems such as ischemic heart disease

**Recommended bibliography**

- Carlson NR. Fisiología de la conducta. 4.<sup>a</sup> ed. Barcelona: Ariel Neurociencia, 2001.
- Hobfoll SE, Shirom A. Conservation of resources theory: applications to stress management in the workplace. En: Golembiewsky RT, editor. Handbook of organization behavior. 2th ed. New York: Dekker, 2000.
- Maslach C, Schaufeli WR, Leiter MP. Job burnout. Annu Rev Psychol 2001;52:397-422.
- Moore JE. Why is this happening? A causal attribution approach to work exhaustion consequences. Acad Manag Rev 2000;25:335-49.
- Pines A. Couple burnout. New York, London: Routledge, 2000.
- Schaufeli WR, Enzmann D. The burnout companion to study and practice. A critical Analysis. Washington, DC: Taylor & Francis, 1998.