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

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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.
Introduction

Burnout syndrome, described by Freudenberg en 1974,1 consists of a progressive loss of energy in workers in the helping professions, with resulting changes in behavior. Maslach and Jackson2,3 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,4,5 which appears to be emerging as a public health problem among Spanish health care professionals.6-12 Among other consequences, behavioral changes, declining health, the appearance of unhealthy life habits and defensive attitudes, and increased absenteeism have been reported.4,5 These changes can lead to decreased efficiency, increased costs and worse quality of care.13-16 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.17

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-

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**18 (MBI), Spanish version,19 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,20 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 nonpsychiatric psychiatric disorders. This instrument is scored as a continuous variable, with a cut-off score of 5/6 (values≥6 are considered positive).21
- A specially designed questionnaire with items about sociodemographic characteristics, training, job characteristics, time at

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**Material and methods**

Cross-sectional, descriptive study with an anonymous, self-administered questionnaire returned by post, with telephone reminders.
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 dimension 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 analgesics, 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 1

<table>
<thead>
<tr>
<th>Sociodemographic and work-related characteristics in subjects who responded to the questionnaire and in all primary care physicians practicing in Area 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total participants (n=196)</td>
</tr>
<tr>
<td>Age, years</td>
</tr>
<tr>
<td>Men</td>
</tr>
<tr>
<td>Married or long-term relationship</td>
</tr>
<tr>
<td>Family medicine practice</td>
</tr>
<tr>
<td>Specialized training (MIR)</td>
</tr>
<tr>
<td>Urban district</td>
</tr>
<tr>
<td>Permanent post</td>
</tr>
<tr>
<td>Primary care team</td>
</tr>
<tr>
<td>Morning shift</td>
</tr>
<tr>
<td>Years in the profession</td>
</tr>
<tr>
<td>Years in current post</td>
</tr>
<tr>
<td>Teaching center</td>
</tr>
<tr>
<td>More than 14 staff members per primary care team</td>
</tr>
<tr>
<td>Patient load</td>
</tr>
<tr>
<td>Family medicine</td>
</tr>
<tr>
<td>Pediatrics</td>
</tr>
<tr>
<td>Number of patients on the physician’s list</td>
</tr>
<tr>
<td>Family medicine</td>
</tr>
<tr>
<td>Pediatrics</td>
</tr>
<tr>
<td>Hours of care/day (last 2 months)</td>
</tr>
<tr>
<td>Hours in training courses (preceding year)</td>
</tr>
<tr>
<td>Permanent position</td>
</tr>
</tbody>
</table>

*Data from the questionnaire.

### Table 2

<table>
<thead>
<tr>
<th>Levels of burnout: mean values in three dimensions for all responding physicians (N=196)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low level</td>
</tr>
<tr>
<td>%</td>
</tr>
<tr>
<td>(95% CI)</td>
</tr>
<tr>
<td>Emotional exhaustion</td>
</tr>
<tr>
<td>Depersonalization</td>
</tr>
<tr>
<td>Personal accomplishment</td>
</tr>
</tbody>
</table>

*Data are mean±standard deviation. Values considered to indicate burnout are shown in italics.
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.6,8-10 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.22-26 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 with 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).

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% percent 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).

### Table 3

<table>
<thead>
<tr>
<th></th>
<th>Total surveyed (N=196)</th>
<th>High EE (N=83)</th>
<th>High DP (N=69)</th>
<th>Low PA (N=73)</th>
<th>Worker burnout (N=135)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GHQ–28b</td>
<td>5.3±6.6</td>
<td>9.0±7.0***</td>
<td>7.2±7.3**</td>
<td>7.9±7.4***</td>
<td>6.8±6.8***</td>
</tr>
<tr>
<td>Positive GHQ</td>
<td>36.4%</td>
<td>63.9%***</td>
<td>49.2%**</td>
<td>54.8%***</td>
<td>48.9%***</td>
</tr>
<tr>
<td>Smoking</td>
<td>29.2%</td>
<td>28.9%</td>
<td>20.3%*</td>
<td>27.4%</td>
<td>26.7%</td>
</tr>
<tr>
<td>Coffee</td>
<td>15.6%</td>
<td>19.3%</td>
<td>14.5%</td>
<td>23.3%*</td>
<td>16.3%</td>
</tr>
<tr>
<td>Alcohol</td>
<td>58.0%</td>
<td>62.7%</td>
<td>62.3%</td>
<td>65.8%</td>
<td>59.3%</td>
</tr>
<tr>
<td>Antidepressants/Anxiolytics</td>
<td>Frequently-regular treatment</td>
<td>7.8%</td>
<td>14.5%**</td>
<td>10.1%</td>
<td>9.7%</td>
</tr>
<tr>
<td>Analgesics</td>
<td>Frequent-regular treatment</td>
<td>26.1%</td>
<td>37.4%**</td>
<td>24.6</td>
<td>31.5%</td>
</tr>
<tr>
<td>Sick leave&gt;15 days (last 2 years)</td>
<td>12.9%</td>
<td>14.5</td>
<td>10.1%</td>
<td>9.6%</td>
<td>13.3%</td>
</tr>
<tr>
<td>Sick leave for psychiatric illness</td>
<td>2.1%</td>
<td>4.8%*</td>
<td>1.5%</td>
<td>2.7%</td>
<td></td>
</tr>
<tr>
<td>Risk of medical error</td>
<td>Frequently-always</td>
<td>28.7%</td>
<td>45.8%***</td>
<td>49.3%***</td>
<td>38.4%*</td>
</tr>
<tr>
<td>Diminished quality of care</td>
<td>Frequently-always</td>
<td>44.1%</td>
<td>63.4%***</td>
<td>58.0%**</td>
<td>57.5%**</td>
</tr>
</tbody>
</table>

*Indications of burnout in at least 1 dimension: EE or DP or PA. ** 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.
with the results of another study of residents in the USA,
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, efforts will be needed to test better instruments for measuring the workload of primary care physicians.

### Table 4: Distribution of variables related with burnout in different dimensions of burnout

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

*Evidence in at least one dimension of burnout: emotional exhaustion or depersonalization or personal accomplishment. 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<.005 Cochrane-Armitage trends test. EE indicates emotional exhaustion; DP, depersonalization; PA, personal accomplishment.
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),\textsuperscript{6,10,27} 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.\textsuperscript{6,8,10,12,21,29}

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, policies aimed at budgetary restrictions, and increased demands by the user population, together with decreasing professional autonomy and recognition,\textsuperscript{30-33} may be behind the high prevalence of burnout. More specific factors such as lack of motivation,\textsuperscript{34} lack of opportunities for promotion, diffi-

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**TABLE 5**

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

*Levels of patient load (patients/day): For family physicians: low: $<35$; moderate/high: $\geq35$ to $\leq47$; very high: $>47$. For pediatricians: low: $\leq30$; moderate/high: $>30$ to $\leq40$; very high: $>40$
TABLE 6  Open question: problems with a weighted value greater than 100 points or that were mentioned by at least 20 respondents

<table>
<thead>
<tr>
<th>Problem</th>
<th>Total (N=196)</th>
<th>With burnout (N=116)</th>
<th>Without burnout (N=51)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rank order</td>
<td>% responses</td>
<td>Weighted mean</td>
</tr>
<tr>
<td>9 Excessive patient load or too many patients on list</td>
<td>1st</td>
<td>76.7%</td>
<td>7.3</td>
</tr>
<tr>
<td>Insufficient time</td>
<td>2nd</td>
<td>31.1%</td>
<td>2.69</td>
</tr>
<tr>
<td>Excessive bureaucracy at the center</td>
<td>3rd</td>
<td>31.1%</td>
<td>2.4</td>
</tr>
<tr>
<td>Lack of substitute staff</td>
<td>4th</td>
<td>19.8%</td>
<td>1.4</td>
</tr>
<tr>
<td>Abuse of access by users</td>
<td>5th</td>
<td>16.2%</td>
<td>1.35</td>
</tr>
<tr>
<td>Emergency service (including house calls) during the work shift at the center</td>
<td>6th</td>
<td>15.6%</td>
<td>1.2</td>
</tr>
<tr>
<td>Lack of team spirit, poor communication</td>
<td>7th</td>
<td>16.2%</td>
<td>1.2</td>
</tr>
<tr>
<td>Inadequate motivation</td>
<td>8th</td>
<td>18.0%</td>
<td>1.2</td>
</tr>
<tr>
<td>Problems with communication and coordination with specialized care</td>
<td>9th</td>
<td>15.0%</td>
<td>1.1</td>
</tr>
<tr>
<td>Demanding/problematic users</td>
<td>10th</td>
<td>15.0%</td>
<td>1.07</td>
</tr>
<tr>
<td>Lack of training (often related with problems with access to employment)</td>
<td>11th</td>
<td>15.6%</td>
<td>1.06</td>
</tr>
<tr>
<td>Problems related with administration (lack of staff, errors, lack of coordination)</td>
<td>12th</td>
<td>15.6%</td>
<td>1.0</td>
</tr>
<tr>
<td>Problems with coordination with nursing</td>
<td>13th</td>
<td>12.6%</td>
<td>0.95</td>
</tr>
<tr>
<td>Little recognition by other professional sectors (directors, specialists)</td>
<td>14th</td>
<td>12.6%</td>
<td>0.86</td>
</tr>
<tr>
<td>Excessive accumulation of tasks (primary care as a catch-all)</td>
<td>15th</td>
<td>10.8%</td>
<td>0.76</td>
</tr>
<tr>
<td>Lack of support from directors</td>
<td>16th</td>
<td>9.0%</td>
<td>0.68</td>
</tr>
<tr>
<td>Excessively long waiting lists</td>
<td>17th</td>
<td>9.0%</td>
<td>0.6</td>
</tr>
</tbody>
</table>

*Percentage of participants who mentioned this factor, referred to the total number of respondents.

*Mean weighted value for each response (see subjects and methods).

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.
iculties 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

Chronic Distress and Worker Burnout: Hypotheses About Causes and Classification

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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 fairness 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 sociocultural 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