

# Professional Burnout and Work Satisfaction in Spanish Allergists: Analysis of Working Conditions in the Specialty

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## ■ Abstract

*Background:* Burnout is a worrying problem in the medical profession and has proven to be highly prevalent in all the care settings and specialty areas in which it has been studied. We applied 2 widely used questionnaires to analyze the working conditions of Spanish allergists in terms of quality of professional life and degree of burnout perceived.

*Methods:* Participants completed 2 questionnaires: the 22-item Maslach scale, a structured questionnaire covering different aspects of the feelings and attitudes of professionals toward their work and patients; and the Spanish Quality of Professional Life Questionnaire (CPV-35), a 35-item questionnaire evaluating job satisfaction and perceived quality of life at work.

*Results:* We received 404 questionnaires from throughout Spain. The main sources of motivation were better pay (94.4%), more available resources/technology (85.1%), access to research activities (81%), and promotion in one's professional career (80.1%). Analysis of the scores from the Maslach scale revealed that two-thirds of the allergists interviewed experienced medium and high levels of negative burnout (67.9% and 66.2%, respectively, for emotional exhaustion and depersonalization). This situation was in part compensated for by the fact that a slightly lower proportion of the group (59.2%) obtained very high scores on personal accomplishment in their work. Analysis of the scores from the CPV-35 questionnaire revealed 3 complementary aspects of job satisfaction: perceptions of the workload borne (5.8), management support available to cope with daily patient workload (5.6), and levels of intrinsic motivation for work (7.7), which was the highest value. The score for the item summarizing self-perceived overall quality of working life was acceptable (6.4).

*Conclusion:* Promoting intrinsic motivation of Spanish allergists using the motivating factors identified in this study could protect against professional burnout.

**Key words:** Allergology. Spain. Burnout. Work satisfaction.

## ■ Resumen

*Introducción:* El síndrome del desgaste profesional es un problema preocupante en el entorno médico, de alta prevalencia en todos los ámbitos asistenciales y especialidades en los que se ha analizado. El presente estudio analiza el clima laboral en la alergología española a través de una encuesta profesional de amplia difusión sobre la calidad de vida profesional y el grado de desgaste profesional percibido por los especialistas.

*Métodos:* Se realizaron en primer lugar un examen descriptivo del perfil laboral del alergólogo entrevistado y posteriormente la escala de Maslach (cuestionario estructurado con 22 ítems que recogen distintos aspectos de los sentimientos y actitudes del profesional en su trabajo y hacia sus pacientes) y el cuestionario CVP-35 (evalúa mediante 35 ítems la satisfacción profesional de los trabajadores y la calidad de vida autopercebida en el puesto de trabajo).

*Resultados:* Se encuestaron 404 alergólogos de toda España. Se explora la percepción personal de los encuestados y se describen los posibles incentivos o mejoras que "motivarían" a los alergólogos. Destacan la mejora retributiva (94,4%), mejora de dotación/tecnología disponible (85,1%), acceso a actividades de investigación (81%) y promoción en carrera profesional (80,1%). El análisis de puntuación en la escala de Maslach indican niveles medios o altos de las subescalas negativas del desgaste en 2/3 de los alergólogos españoles: "cansancio emocional" (67,9%) y "despersonalización" (66,2%). Compensando esta situación un 59,2% obtienen puntuaciones muy altas en la "realización personal con su trabajo". El análisis de las puntuaciones del cuestionario CVP-35 muestran puntuaciones en el

rango medio en relación con las percepciones de "cargas de trabajo soportadas" (5,8) y "apoyo directivo disponible para afrontar la carga asistencial diaria" (5,6). La "motivación intrínseca" (7,7) alcanza el valor más elevado. El ítem final que resume la "calidad de vida global autopercebida por el trabajador" alcanza una aceptable puntuación (6,4).

*Conclusiones:* Fomentar la "motivación intrínseca" de los especialistas en Alergología en España a través de los factores de motivación detectados en este estudio pueden ser un mecanismo protector contra el desgaste profesional.

*Palabras clave:* Alergología. España. Desgaste profesional. Satisfacción laboral.

## Introduction

Professional burnout syndrome was first described in 1974 by the psychiatrist Herbert Freudenberg [1]. Shortly after, it was characterized in detail by Maslach and Jackson [2] as a syndrome of excessive emotional load, or burnout, comprising a set of emotional and physical responses to chronic work stress.

Burnout syndrome usually affects professionals whose job involves providing direct help to other people. It results from excessive workload, normally after establishing high expectations and providing considerable dedication to the professional activity in question. The syndrome is typical of professionals working in health care or education. Over time, some professionals [2] can develop symptoms of emotional exhaustion, depersonalization, and feelings of lack of personal accomplishment which, to varying degrees, may have both physical and emotional repercussions (eg, fatigue, general malaise, and symptoms of anxiety and depression) [3]. Several variables are associated with this syndrome, including personal characteristics, previous experience of coping with stress, and the actual consequences that the situation may have for the individual or the environment [4].

Burnout is a worrying problem in the medical profession and is highly prevalent in the care settings and specialty areas in which it has been analyzed. It is associated with difficult working conditions and feelings of dissatisfaction with one's work [5].

Several studies have revealed a direct relationship between patient satisfaction with care and health care professionals' satisfaction with their work; this relationship protects against absenteeism, excessive changes between one type of work and another, and poor work performance. Job dissatisfaction influences the quality of care provided, mainly in terms of prescribing patterns and adherence to treatment [3]. As a result, maintaining motivation and promoting job satisfaction are currently considered to be the main objectives of a modern health care system, along with providing high-quality care and ensuring patient satisfaction.

Quality of life and job satisfaction are based on a professional's perception of the appropriate balance between the demands of the job and the means available to meet these demands (both intrinsic and extrinsic) [6]. Thus, perceived demands may not only be those related directly to workload, but also those associated with working in an uncomfortable or harmful environment and the perceived need for training,

participation, and job security. However, the resources required to cope with work demands involve psychological, organizational, and relationship factors. Personality is clearly one of the factors that determine a worker's perception of stress or job dissatisfaction, as is the degree of control over the outcome of one's own work, perceived degree of independence, and income [5-7].

Little is known about professional burnout, job satisfaction, and motivation among Spanish allergists. In the other care settings and specialties where this problem has been analyzed, more than one-third of the professionals examined were experiencing professional burnout [8-11]. The effects of the syndrome reveal a real threat for the competitiveness and survival of medical specialties that appear to be losing their attractiveness for future generations on whom they depend for their professional regeneration [12].

We analyzed the working conditions of Spanish allergists using 2 widely distributed questionnaires on the quality of professional life and degree of burnout perceived by specialists. We also attempted to identify the potential causes of the problem from among the structural and functional characteristics of allergology services (eg, remuneration, waiting lists, caseload, type of contract) and to explore the opinions of Spanish allergists with regard to their professional expectations and the most effective motivating factors and incentives (eg, better remuneration, access to training and/or research activities, promotion).

The hypothesis underlying the project was that the situation of allergists would not be substantially different to that described for other specialties and that establishing this fact may encourage corrective action. Thus, the study was carried out under the auspices of the Spanish Society of Allergology and Clinical Immunology (SEAIC) with the aim of persuading individuals and institutions to reflect and identify problems and opportunities for improvement. This detailed analysis may suggest possible future lines of professional development for SEAIC to promote.

Many reliable instruments that have been validated in Spanish and widely used in our field are available to objectively assess working conditions. Given their psychometric value, applicability, and comparability with studies previously undertaken in other specialties, we opted to use the Maslach professional burnout questionnaire [2,13,14] and the Spanish Quality of Professional Life Questionnaire (CVP-35 [originally QVP-35]) [15].

## Materials and Methods

We performed a descriptive, cross-sectional study using a written, self-administered structured questionnaire sent to a wide sample of allergists from all over Spain during April-June 2008.

The study population comprised a representative national sample that reflected variability affecting the profession in terms of factors such as geographic origin, social and health care setting, and public or private health sector. A convenience sample was selected by inviting SEAIC members to participate. The only eligibility criterion was to be a practicing allergist. We hoped to recruit a minimum of 400 participants, structured proportionally by autonomous region. We eventually received 404 valid questionnaires. This sample size allowed the main calculations of the study to be made with a random error of less than 5% for a confidence level of 95% (supposing the worst possible conditions of responses to variables with a binomial distribution:  $p=q=0.5$ ).

The study comprised 2 sections. It began with a descriptive analysis of the job profile (including private or public sector, legal status of the institution, type of contract, number of years worked, job profile [generalist or subspecialist], daily caseload, average waiting time). Opinions were also collected in a structured manner on professional expectations and incentives with regard to patient care, training, research, pay, professional issues, and relationship with the industry. The second part of the study included the Maslach Burnout Inventory and the CVP-35 questionnaire, both of which have been validated for use with health care professionals in Spain.

The Maslach Burnout Inventory is a structured questionnaire comprising 22 items covering different aspects of the feelings and attitudes of professionals toward their work and patients. Interviewees had to evaluate each item using a 6-point Likert scale describing how often they experienced feelings related to their work based on the following options: never, 0; a few times a year (or less), 1; once a month (or less), 2; a few times a month (or less), 3; once a week, 4; a few times a week, 5; and every day, 6. For purposes of analysis and interpretation, the items are grouped in 3 dimensions: the emotional exhaustion subscale (9 items), which reflects the feeling of being emotionally exhausted by work and with reduced ability to commit to others; the depersonalization subscale (5 items), which recognizes attitudes of coldness and distance toward patients; and the personal accomplishment subscale (8 items), which identifies feelings of professional effectiveness and successful work-related outcomes. In contrast with scores from the first 2 components, low scores on the third dimension are indicative of professional burnout. The classification into low, medium, and high levels for each dimension of the scale was based on the cutoff points that divide a Spanish sample of 1138 people into tertiles according to the questionnaire's user manual (13). The cutoff points for emotional exhaustion are 15 and 24 (ie, scores under 15 are considered low and scores above 24 are considered high), those for depersonalization are 4 and 9, and those for personal accomplishment are 33 and 39. This tool has a high internal consistency and reliability.

The CPV-35 questionnaire evaluates job satisfaction and perceived quality of life at work using 35 items with answers

given on a discrete numerical 1-10 scale accompanied by explanatory ordinal categories with 4 points (none, 1-3; some, 4-6; quite a lot, 7-9; and a lot, 10). Analysis of test scores offers a multidimensional measurement of the professional satisfaction of the interviewee on 3 subscales: perception of workload borne, perception of direct support available to cope with the daily load of care provision, and perception of the intrinsic motivation of professionals for their work. The final section of the questionnaire was a summary item that also evaluated the overall perceived quality of working life. This instrument has been validated for Spanish clinicians and shows acceptable levels of internal consistency (Cronbach  $\alpha$  between 0.75 and 0.86) with a high correlation between the averages for the items in each dimension and the factorial scores.

Interested participants received a copy of the survey and a detailed study protocol with instructions. The completed questionnaires were returned in stamp-addressed envelopes to the coordinating center responsible for managing the study, and sender anonymity was maintained (only geographical location was identified in order to stratify the sample). After being scanned to ensure accurate collection of the data, the forms were processed by expert staff using automatic response recognition software.

The software package SPSS v13.0 was used for the statistical analysis, which included a description of qualitative variables using frequencies and percentages and of quantitative variables using the mean, median, and standard deviation. The corresponding graphs were also plotted for the most interesting variables. Using the most appropriate comparative tests for each case ( $t$  test and analysis of variance [ANOVA] or their nonparametric equivalents) and correlation analyses (Pearson product moment correlation or Spearman rank correlation, depending on the variables analyzed), the possible association between the personal and professional characteristics of each participant (eg, age, care provision environment, professional experience) and the results of the questionnaires was analyzed.

## Results

### *Demographic and Work Profile of the Respondents*

We received 404 questionnaires from all over Spain. Respondent age ranged from 27 to 69 years (mean [SD], 43.9 [8.8] years; median 44 years) and most (54.8%) were female. Length of professional experience ranged from 1 to 33 years (mean 14.2 [8.5] years; median 14 years) and was greater in men (17.1 vs 11.8 years;  $t$  test  $-6.41$ ,  $P<.0001$ ).

Part of the sample reported some type of subspecialization, with pediatric allergy (17.1%), drug allergy (11.6%), and occupational allergy (6.4%) being the most common. Most respondents (358 out of 404, 88.6%) had salaried jobs or combined this type of work with private practice (28%), while only 11% worked independently. Those in salaried jobs worked mostly in health centers run by regional public health services, although one-quarter (26.2%) worked in private institutions and the rest (9.4%) in other types of public centers (foundations, the armed forces, local administration).

Working relationships with care centers varied widely. Most respondents (60.4%) were contracted according to established statutes or as state employees: 37.4% had a permanent contract, 23% had a temporary contract, and 23.5% had individual job contracts (half were temporary, half permanent). Only 14.1% of the respondents were self-employed.

The most common health care setting (by time worked per week) was a hospital, where respondents spent 61.5% of their time, compared with nonhospital settings (eg, outpatient departments, primary care, private practice), where respondents spent 38.5% of their time. Table 1 shows the differences, based on the setting, in 2 indicators of the pressure of caseload (caseload and patient delay).

### Professional Incentives and Expectations

Table 2 shows the respondents' perception of a series of possible professional incentives and expectations as a source of motivation. Motivation was classified as great motivation, moderate motivation, no opinion, little motivation, or no motivation.

### Professional Burnout Evaluated Using the Maslach Scale

The respondent's score is based on the total of the 3 subscales reflecting the different conceptual dimensions of professional burnout, namely, emotional exhaustion, depersonalization, and personal accomplishment. Table 3 shows the results by group, as interpreted against the standard reference distribution for Spain.

*Possible causes of professional burnout:* Of the quantitative attributes of the demographic and professional profile of the allergists interviewed, age, number of years of professional experience, and length of waiting lists were not related to any of the professional burnout subscales, with ANOVA yielding *P* values lower than .05. In contrast, excess caseload was associated with feelings of depersonalization (ANOVA,  $F=2.6$ ;  $P=.083$ ) and, in the case of private practice, with the level of personal accomplishment of the allergist (ANOVA,  $F=5.05$ ;  $P=.008$ ). Spending more working time in settings outside the hospital (to the detriment of work in the hospital) was also associated with a greater level of emotional exhaustion (ANOVA,  $F=4.2$ ;  $P=.016$ ).

Table 1. Patient Workload of the Allergists Surveyed

Indicator	Public Institutions	Private Institutions	Private Practice
Average patient workload <sup>a</sup> (95% CI)	18.3 (17.1-19.4)	14.8 (13.3-16.2)	12.2 (10.7-13.7)
Average patient delay <sup>b</sup> (95% CI)	68.3 (59.8-76.8)	19.2 (7.8-30.6)	8.1 (6.7-9.5)

Abbreviation: CI, confidence interval.

<sup>a</sup>Average number of patients treated per day.

<sup>b</sup>Average number of days' waiting from making the appointment to the visit.

Table 2. Sources of Professional Motivation Among Spanish Allergists

Possible Incentive or Expectation	Respondents Declaring Great or Moderate Motivation, %
Better pay	94.4
More available resources/technology	85.1
Access to research activities	81.0
Promotion in professional career	80.1
Reduction in patient workload	71.1
Access to subspecialty training	58.2
Access/promotion to university lecturing	57.3
Access to specialized tutoring (medical resident training)	49.1
Collaboration with the pharmaceutical industry (expert consultant)	43.9
Professional responsibility (scientific association)	43.0
Organizational responsibility (head of service)	34.5
Have (or expand) private practice	26.6
Transfer to center of choice	25.4
Management responsibility	9.6

Table 3. Degree of Burnout of Spanish Allergists

Maslach Questionnaire Subscales	Mean Sample Score	Distribution of Respondents, %			Total
		Low Level	Medium Level	High Level	
Emotional exhaustion (9 items)	20.9	32	34.6	33.3	100
Personal accomplishment (8 items)	45.6	9.7	31.1	59.2	100
Depersonalization (5 items)	6.9	33.8	37.7	28.5	100

<sup>a</sup>Classification by cutoff points in tertiles of a reference sample of Spanish professionals as proposed in the user's manual of the questionnaire.

For the analysis of the possible association between emotional exhaustion and work status (self-employed, salaried, or both), the last 2 categories were analyzed together after it was found that there were no appreciable differences between them in the distribution of levels on the Maslach subscales (in all cases, the  $\chi^2$  test analyses gave  $P$  values greater than .05). With this in mind, allergists with any type of salaried employment (whether exclusive or in combination with self-employed work) experienced higher levels of emotional exhaustion ( $\chi^2=10.1$ ,  $P=.007$ ) and feelings of depersonalization ( $\chi^2=11.9$ ,  $P=.003$ ) than those who were exclusively self-employed. Although higher levels of personal accomplishment were more frequent among the latter, the differences were not statistically significant ( $\chi^2=3.5$ ,  $P=.17$ ). Figure 1 shows the distribution of the respondents across the different levels of each Maslach subscale, according to the 2 types of job status (self-employed or salaried).

In the majority subgroup of salaried allergists, although working in public centers tended to produce lower scores in all the professional burnout subscales than working in the private sector, none of the differences were statistically significant. As for the type of contract, being a state employee or having a statutory contract, as compared to any other type of contract, was associated with higher levels of emotional exhaustion: 41.6% of the former scored in the higher range in comparison with 23.4% of the remaining respondents ( $\chi^2=10.8$ ,  $P=.005$ ). This situation was not more acute among temporary staff.

#### Job Satisfaction and Quality of Working Life Perceived by Allergists as Measured Using the CPV-35 Questionnaire

The results of the CVP-35 provided us with a multidimensional measure of job satisfaction on 3 subscales (perceptions of different complementary aspects of job satisfaction), namely, workload borne, management support

available to cope with daily patient workload, and intrinsic motivation of professionals for their work. The test also included a summary item covering self-perceived overall quality of working life. Table 4 provides the results of the test and Figure 2 describes in detail the distribution of the respondents' scores.

*Possible explanations for the perception of quality of working life:* Before the possible associations were evaluated, the distribution of the quality of working life scores and the CPV-35 subscales were checked for normality using the

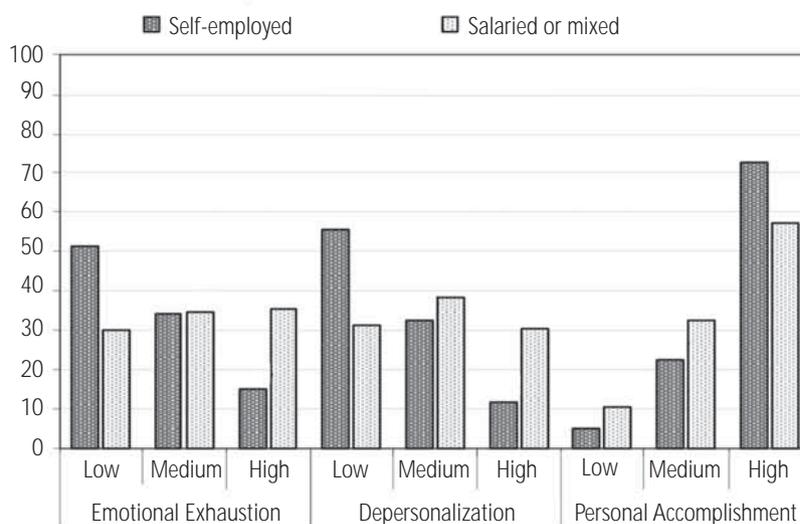


Figure 1. Professional burnout and employment type.

Table 4. Job Satisfaction of the Allergists Interviewed (Scores on the CVP-35 Subscales in Allergology<sup>a</sup>)

CVP-35 Dimensions	Mean	Median	SD
Workload (11 items)	5.8	6	1.40
Management support (12 items)	5.6	6	1.52
Intrinsic motivation (11 items)	7.7	8	0.94
Overall quality of life (1 item)	6.4	7	1.96

<sup>a</sup>Results of the group scores on a numeric 1-10 scale, categorized as follows: none, 1-3; some, 4-6; quite a lot, 7-9; and a lot, 10.

Kolmogorov-Smirnov test ( $P < .0001$  in all cases). Neither the age of the allergists nor their professional experience (number of years worked) was related to the scores in any particular aspect of work satisfaction or with the overall perception of quality of working life: in all cases, the results of the corresponding nonparametric analyses (Spearman  $\rho$ ) revealed a significance level of  $P > .30$ .

In contrast, the perception of workload in the CVP-35 questionnaire showed a positive correlation with the usual caseload as described by the respondents, although such an association was found only for those allergists working in the public sector ( $P = .04$ ) and with the longest waiting lists in all types of center, whether they were public sector ( $P = .02$ ), private hospitals ( $P = .0002$ ), or private practice ( $P = .0001$ ). Management support, professional motivation, and overall quality of working life were not related to the work sector. As regards the type of professional activity, the time dedicated to working inside or outside the hospital showed no significant correlation with quality of working life or with any of its component scales.

For the analysis of the possible differences in job satisfaction based on job status (self-employed, salaried, or both), the last 2 categories were analyzed together after it was found that there were no appreciable differences between them in the distribution on the CPV-35 subscales (in all cases the Mann-Whitney tests gave  $P$  values greater than .03). With this in mind, allergists with any type of salaried employment (whether exclusively or in combination with self-employed work) had a greater perception of workloads (on average +1.4 points, Mann-Whitney  $P = .0001$ ) than those who were exclusively self-employed. In contrast, those in the latter group scored higher on overall quality of working life (on average +0.98 points, Mann-Whitney  $P = .002$ ).

In the majority subgroup of salaried allergists, although those working in public centers obtained lower scores in all the professional burnout subscales than those working in the private sector, the differences were small and only statistically significant in perceived management support (+0.50 points in private centers, Mann-Whitney  $P = .01$ ).

As for the type of contract, only being a state employee or having a statutory contract, as compared to any other type of contract, was associated with higher scores for workloads (on average +0.55 points, Mann-Whitney  $P = .000$ ), with a lower perception of management support (on average -0.49 points, Mann-Whitney  $P = .01$ ) and with a lower overall quality of life (-0.41 points, Mann-Whitney  $P = .027$ ).

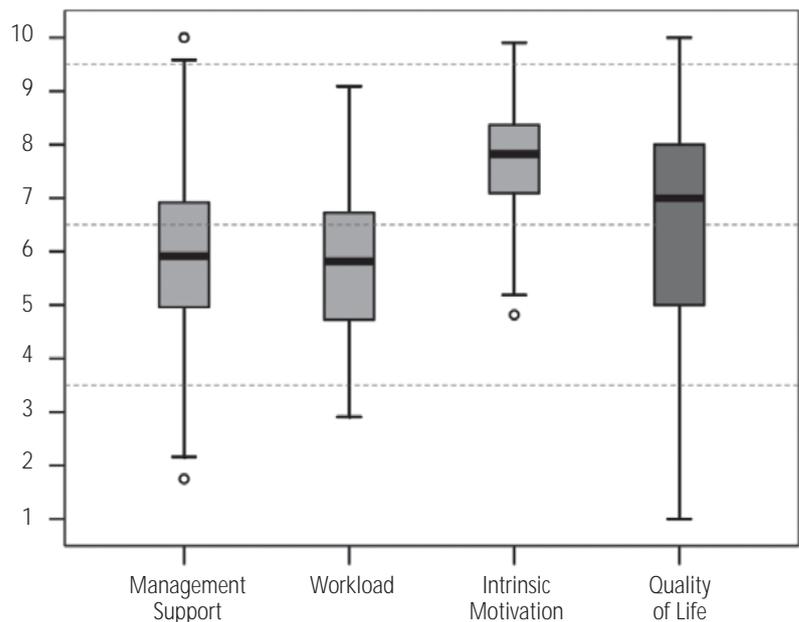


Figure 2. Box plots comparing the distribution of scores of the respondents on each of the CPV-35 subscales.

Table 5. Analysis of the Correlation Between the Results From the Maslach Scale and Those From the CPV-35 Questionnaire

Correlation Between Scores <sup>a</sup>	CVP-35			
	Management Support	Workload	Intrinsic Motivation	Quality of Life
Emotional exhaustion	-0.38	0.62	-0.33	-0.50
Personal accomplishment	0.32	-0.15	0.52	0.27
Depersonalization	-0.22	0.24	-0.33	-0.20

<sup>a</sup>Spearman's  $\rho$  correlation coefficient. In all cases  $P < .001$ .

### Relationship Between the Results of the Burnout Questionnaire and Quality of Working Life

In order to facilitate identification of significant relationships, Table 5 shows the bivariate correlations between the scores of the respondents on the different subscales of each questionnaire.

## Discussion

The present study analyzed the working conditions of Spanish allergists from several different but closely related perspectives. We evaluated the presence of professional burnout syndrome, a pernicious condition that is becoming more prevalent in other clinical settings where it has been evaluated [8-12]. We also analyzed possible conditioning factors to ascertain the opinion of allergists on their levels of satisfaction with the work that they do and on their perceived quality of working life. For this purpose, we used 2 tools,

the Maslach scale [2,13,14] and the CPV-35 questionnaire [15], both of which have been satisfactorily standardized and validated for use in Spanish health care settings. Furthermore, the survey collected data on the feelings of allergists regarding different potential incentives, which could lead to greater work motivation.

The authors are confident that knowledge of the information contained in this report will help to direct actions that the different agents involved in the field of allergology—clinicians, corporate heads of scientific associations, health center management teams, heads of services/units, those responsible for teaching, the pharmaceutical industry—can undertake to improve working conditions. These actions should take account of both present circumstances and real expectations.

Although voluntary participation in the survey could represent a clear example of selection bias, the free access of the participants to the project, the final sample size, the demographic and professional characteristics, and the wide geographical stratification (by autonomous communities) reinforce external validity as regards the professional group as a whole. In this sense, the typical profile of the participating allergist (average age 44 years, slightly more likely to be female than male, work experience of 15 years, and professional activity shared between the public and private sectors) is fundamentally in line with other data previously available on members of the SEAIC [16]. As expected, caseload is significantly greater in the public sector than in the private sector or in private practice, both as regards the number of patients seen per day (18 as compared to 15 and 12, respectively) and waiting lists for access to consultation with a specialist (68 days as compared to 19 and 8, respectively).

The anonymous and presumably sincere opinion of the allergists interviewed reveals that the main incentive among specialists is better pay, followed by (in this order) improvements in facilities and technology, promotion in the profession, access to research activities, and lower caseloads. In contrast, access to managerial responsibility was the factor least considered by the clinicians to be professionally motivating.

Analysis of the Maslach scale results allowed a specific score to be established for each respondent on 3 complementary conceptual dimensions of professional burnout: emotional exhaustion, depersonalization, and personal accomplishment (see Methods). The first 2 are directly related to professional burnout, whereas an inverse relationship is observed in the third case. Taken together, and in comparison with the scores on this test for the reference Spanish working population, two-thirds of the allergists interviewed fell equally into the medium and high levels of the negative burnout subscales (67.9% and 66.2%, respectively, for emotional exhaustion and depersonalization). This situation was in part compensated for by the fact that a slightly lower proportion (59.2%) obtained very high scores on personal accomplishment in their work. Respondents highlighted a special satisfaction with their skills in establishing rapport with patients and their ability to

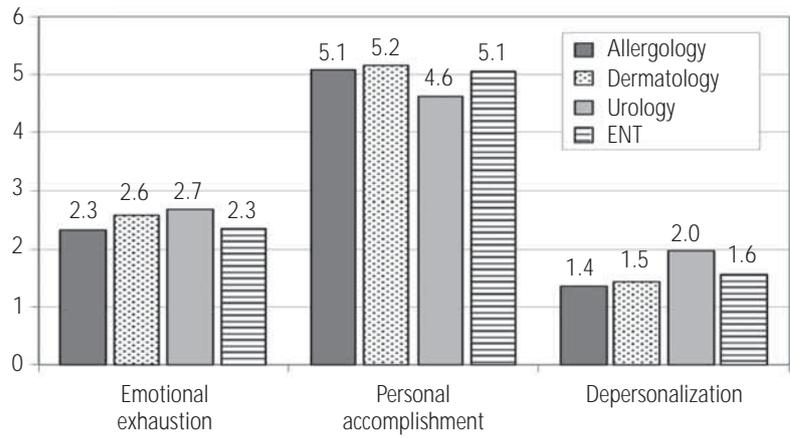


Figure 3. Scores on the Maslach subscales for allergists as compared to other specialists.

efficiently resolve clinical problems; the highest scores in the emotional exhaustion subscale were for perception of being tired at the end of the working day and working too much. The association between depersonalization and a growing insensitivity toward patients was particularly strong.

Figure 3 compares the degree of professional burnout in allergology with that observed in other specialties. The scores on the Maslach scale obtained by the allergists can practically be superimposed on those from recent studies in other Spanish specialties (dermatologists, urologists, and ENT specialists) [9-11]. Although the differences observed are not significant, specialists in allergology show the same results for emotional exhaustion and degree of depersonalization (a lower score in both cases) as the other 3 groups.

In other specialties, professional burnout has been linked to background and working and professional factors. In our sample, burnout was not related to age or longer professional experience. The excessive number of patients seen per day is, however, directly related to the development of attitudes of coldness and distance toward patients. Measures to resolve this issue ought to be given priority by health care planners if the aim is to improve the quality perceived by users, which in turn is closely related to the humanity and empathy expressed by the care providers.

Curiously, excessive caseload is not necessarily a cause of burnout in private practice; in this setting, it is positively associated with a greater level of personal accomplishment. If this dimension is understood as the perception of feelings of professional efficacy and successful work outcomes in a private setting where pay may be linked to results, the professional may find arguments to lessen the negative effects of excessive caseload.

Factors recognized as inducing greater perceptions of professional burnout are time spent in practice outside the hospital (to the detriment of work in the hospital) and being in salaried employment, especially if the allergist is a state employee or on a statutory contract, whether permanent or temporary. Based on these data, job stability does not appear to lead to lower levels of burnout. Rather, being self-employed, in spite of the economic uncertainty it might entail, actually protects against feelings of emotional exhaustion and depersonalization. Health care management requirements

that were common in the past, such as working full-time for the public sector, did not seem to take into account the apparent benefits of combining public service with some type of private practice.

Analysis of the scores from the CPV-35 questionnaire allowed 3 complementary aspects of job satisfaction to be determined: professionals' perceptions of the workload borne, management support available to cope with daily patient workload, and levels of intrinsic motivation for work. The test also includes a final item that summarizes the self-perceived overall quality of working life using a single value between 1 and 10 points.

The results of the test show scores in the middle range of the scale for the first 2 dimensions (5.8 and 5.6, respectively), which can be interpreted as a moderate perception of caseload and of management support to cope with it (some according to the categorization of the scale proposed by the authors of the test). Although the volume of work overall is not perceived as extreme, part of the professional burnout found in the Maslach scale may depend on the low expectations of specialists of receiving adequate support from their superiors and colleagues and from a general skepticism about the real involvement of those responsible for running the center in improving the conditions under which work is done. Paradoxically, actively participating in the management of the service does not seem to be contemplated by the respondents, who value such an option as the least motivating among various proposals for professional development.

Against the background of these results, it is necessary to highlight the encouraging score (7.7) the respondents obtained in self-perception of intrinsic motivation for the work they carry out, a question that may reflect the satisfaction of the respondents with the aspects of their work that they can control directly, irrespective of external circumstances. The results on this subscale show a clear inverse correlation with the negative dimensions of professional burnout (perception of depersonalization and emotional exhaustion) and a strong direct association with the highest perceptions of personal accomplishment. In light of these results, promoting the intrinsic motivation of allergists using the other motivating factors identified in this study may protect against professional burnout.

The results for quality of life as perceived by the allergists were varied, ranging from the lowest to the highest values on the scale used. According to the interpretation given by the authors of the test, the quality of working life perceived by the respondents (6.4/10) would place them on a medium level, closer to *some* than *quite a lot*, in line with the levels of professional burnout identified. Again, neither age nor number of years worked seem to influence this result.

Figure 4 compares the results of the CPV-35 questionnaire with those obtained for similar samples from other specialties [9-11]. Although the score is similar to those for dermatologists, urologists, and ENT specialists in terms of workload and management support, allergists perceive the best intrinsic

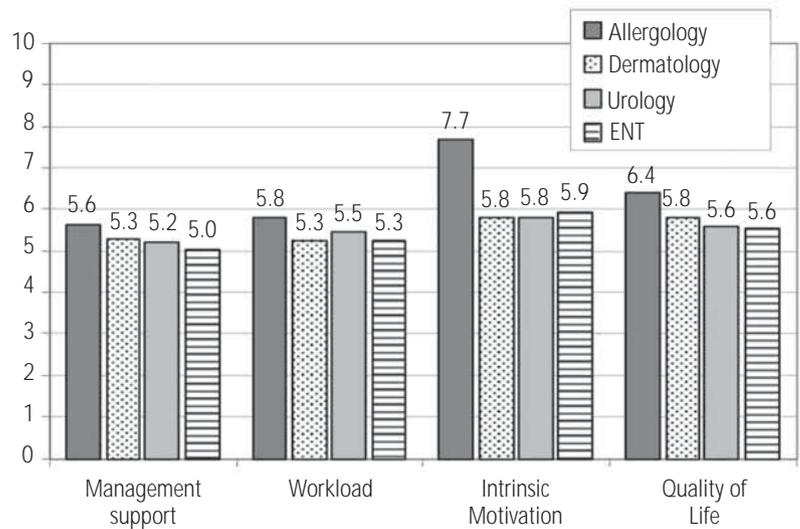


Figure 4. Scores on the CPV-35 subscales for allergists as compared to other specialists.

motivation and the best overall quality of working life of the 4 groups.

As expected, the perception of greater workloads in the CVP-35 showed a clear positive correlation with the average number of patients seen per day and with longer waiting lists. The latter seems to be a cause for concern shared by both management and clinicians. In line with the results from the Maslach survey, specific analysis of the scores of allergists in salaried employment reveals a greater perception of workload among those working in public centers than the more satisfactory perception of management support by those working in private centers. The latter observation seems to validate current benchmarking strategies for processes aiming to improve models of public health care management by promoting the identification and adoption of best practices from the private sector.

Unlike the results for professional burnout, more time dedicated to out-of-hospital work does not seem to lead to a lower overall quality of working life. Factors such as greater professional independence and lower incidence of life-threatening events are probably valued more by allergists than other less favorable factors, such as the feeling of professional isolation or more limited technical and instrumental facilities. All of these factors must be taken into account if we are to provide a health care system that will improve access to high-quality allergy care throughout the country.

Finally, our results show that it is time to review the mechanisms for motivating professionals working in the public sector (state employees or those with statutory contracts). As compared to professionals from any other setting, in addition to perceiving the highest levels of burnout, public sector allergists reported the highest levels of dissatisfaction with their workloads, the lowest perceptions of management support, and a lower quality of working life.

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## Conflicts of Interest

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