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# Levels of burnout in general practitioners: evaluation of risk and protective factors

Chloé Barel

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UNIVERSITÉ CLERMONT AUVERGNE  
UFR DE MÉDECINE ET DES PROFESSIONS PARAMÉDICALES

THÈSE D'EXERCICE  
Pour le  
DIPLOME D'ÉTAT DE DOCTEUR EN MÉDECINE  
Par

Chloé BAREL

Présentée et soutenue publiquement le 9 décembre 2021

**Niveau d'épuisement professionnel chez les médecins généralistes français :**  
**Facteurs de protection et de risque**

Président du jury : Monsieur VORILHON Philippe, Professeur des Universités, CHU  
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## A notre Président de thèse :

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**Département de Médecine Générale**  
**CHU Clermont-Ferrand**

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# Liste des Abréviations

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EP : épuisement professionnel

MG : médecins généralistes

BO: burnout syndrome

GPs: General Practitioners



# 1. Introduction

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De nombreuses études décrivent les médecins généralistes (MG) comme une population à risque d'épuisement professionnel (EP) ou burnout (1–3). Un haut niveau d'EP est mondialement retrouvé grâce à des travaux en Europe (4–9), en Asie (10), et sur le continent américain (11,12). Plus particulièrement, le burnout sévère concernerait jusqu'à 16% des MG. Le syndrome d'épuisement professionnel a un impact sur la qualité des soins prodigués aux patients et sur la capacité de prise de décisions (13), pouvant entraîner des erreurs médicales et une plus grande insatisfaction au travail (14, 15). Nombreux sont ceux voulant arrêter leur carrière précocement (16-18). Malgré ces conséquences, il existe peu ou pas de données sur le niveau de burnout chez les MG français. Des facteurs professionnels à risque sont connus, comme la charge professionnelle (19) ou le nombre d'heures de travail (20). De la même manière, les MG sont exposés au stress des urgences lors des gardes de nuit, soit en médecine générale, soit dans un service d'urgence, ce qui peut contribuer à l'apparition de l'EP (21). A l'inverse, des facteurs protecteurs ont été identifiés, comme avoir un secrétariat sur place (20), encadrer des étudiants (22) ou avoir de nombreux échanges professionnels (23-25), ce qui améliore les conditions de travail. Certains MG font des visites à domicile, qui peuvent représenter un engagement supplémentaire en tant que « médecin de famille » (26). Les MG français ont la possibilité d'exercer seul en cabinet, dans un cabinet de groupe, dans des maisons de santé pluridisciplinaires, ou même avoir un exercice mixte, partagé entre le libéral et l'hospitalier (5, 27-29). De plus, plusieurs facteurs personnels sont connus comme facteurs de risque d'EP, tels que l'âge (22), le sexe (30), la parentalité (27) ou le statut marital (20, 27). Peu d'études françaises quantifient le risque de burnout en combinant tous ces facteurs.

Par conséquent, l'objectif de cette étude était d'évaluer les niveaux de burnout des médecins généralistes français et de mettre en lumière des facteurs de risque et des facteurs protecteurs.

## 2. Article

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### 2.1 Title page

# **Levels of burnout in general practitioners: evaluation of risk and protective factors**

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## 2.2 Abstract

**Background:** We aimed to evaluate the prevalence of burnout among French general practitioners (GPs) in private practice, and to study risk and protective factors of burnout.

**Methods:** The COVISTRESS international study is an online questionnaire collecting demographic and occupational data, using the secure REDCap<sup>®</sup> software. Exclusion criteria were to work out of France and only in a hospital. Burnout levels were evaluated using non-calibrated visual analog scale, from 0 (no burnout) to 100 (maximal burnout).

**Results:** We included 200 GPs among the 1329 retrieved questionnaires. 24.5% of French GPs were in severe burnout (burnout level >60). The risk factors of severe burnout were combining hospital and private practice (OR 3.11, 95CI 1.00 to 9.72) and working in medical house (2.98, 1.02-8.70). There is a dose-response relation between workload and burnout: the risk of severe burnout increased by 57% per 10 hours of work per week (1.57, 1.20 to 2.04), and by 42% per 10 weekly consultations (1.42, 1.10 to 1.84). Protective factor of severe burnout was being married or in couple, decreasing the risk of severe burnout by 62% (0.38, 0.16 to 0.89).

**Conclusion:** GPs are at high risk of burnout with 26.5% of them in severe burnout, affecting predominantly those over 40 years old. Main risks factors of sever burnout were combining hospital and private practice, working in health medical house, having a higher workload and many consultations. The main protective factor was being in couple. It is necessary to consider the mental health of GPs to reduce its impact on the quality-of-care French medicine.

**Keywords:** General practitioners; burnout; mental health

## 2.3 Introduction

Many studies describe general practitioners (GPs) as a population at risk of burnout (1–3). High levels of burnout are identified worldwide in GPs, with nationwide studies in Europe (4–9), Asia (10), and America (11,12). Particularly, severe burnout concerned up to 16% of GPs. Burnout has impact on quality of primary cares and decision-making capacity (13), leading to medical errors and greater dissatisfaction at work (14,15). Many of whom want to stop their careers early (16–18). Despite those consequences, there are few or no data on burnout levels in French GPs. Some occupational characteristics are known to be risk factors such as workload (19) and long duration of work (20). In the same way, GPs are also exposed to emergencies during night shifts, that were linked with burnout (21). On the opposite, there are some protective factors of burnout, such as have an administrative support (20), managing medical students (22) or having clinical communication (23-25), improving working conditions. Some GPs make home visits that represent a sense of engagement as a “family doctor” (26). French GPs can practice in solo, group cabinet, in a health medical house with others health care workers, or combining both hospital and private practice (5,27-29). In addition, there were also several personal factors identified as risk factors of burnout such as age (22), gender (30), parenthood (27) or marital status (20,27). Few studies quantified the risk of burnout combining all those risk and protective factors.

Therefore, the aim of this study was to evaluate burnout levels of French GPs in private practice and to highlight risk and protective factors.

## 2.4 Methods

### Study design

We conducted an international prospective observational study on GPs that started before the COVID-19 pandemic. We used a computerized anonymous questionnaire accessible by COVISTRESS.org and translated into ten languages. The questionnaire consisted of about 58 questions, some of which have sub-parts. It was disseminated electronically and distributed several times through mailing lists of the National, Regional and Departmental Physicians Council, the Regional Union of healthcare workers (URPS), and mailing lists of GPs. We used the secure internet application REDCap<sup>®</sup> to build and manage the questionnaire, hosted by the University Hospital of Clermont-Ferrand. This study was ratified by the French Ethical Committee South-East VI (Clinicaltrials.gov NCT04538586).

### Participants

To be included, participants had to be general practitioners in private practice in France. Exclusion criteria were to work out of France and only in a hospital. There was a putative sample size of 85364 GPs in France (31) (Figure 1).

### Outcomes: Instrument survey

**Burnout** was measured with the use of a visual analog scale i.e. a non-calibrated horizontal line ranging from minimum (0) to maximum (100). GPs can self-assess in a simple way and with a scale large enough to cover the multitude of possible responses. We considered a severe burnout when participants gave a score  $\geq 60$  that is considered as of clinical significance threshold (32,33)

**Personal characteristics:** age, sex, marital status, and parenthood were assessed.

**Secondary outcomes** were setting characteristics (private practice only or combining hospital and private practice, isolated/group, and health medical house practice), social environment (resident training as a university supervisor, home visits, teleconsultations, and administrative support), workload (number of hours worked per week, and number of weekly consultations) and emergency night shifts (in private practice, and in an emergency hospital department).

## Statistical analysis

Data were expressed in number and percentage for categorical variables and mean  $\pm$  standard deviation (SD) for quantitative variables. A first descriptive univariate analysis was carried out to assess the respondent characteristics. A Spearman  $r$  test was carried out to study the correlation between numerical values. Then, the comparisons of burnout level between groups were performed using Chi2 or Fisher's exact tests for the categorical variables and using Mann Whitney or Kruskal-Wallis tests for qualitative variables. Finally, multivariate analysis was conducted with covariates chosen according to their clinical relevance and to the univariate results. When burnout level was used as continuous quantitative variable, results were expressed as coefficient and 95% confidence intervals (95% CI). Binary logistic regression was carried out to evaluate the risk being in severe burnout. When burnout level was used as qualitative variable, results were expressed as odds ratio (OR) and 95% confidence intervals (95CI). A particular attention has been paid to the study of multicollinearity and interactions between covariates 1) studying the relationships between the covariates and 2) evaluating the impact to add or delete variables on multivariate model. All statistics were computed using Stata software (v16, StataCorp, College station, USA). A difference was considered statistically significant for  $p < 0.05$ .

## 2.5 Results

### Participants

1329 GPs answered the questionnaire. Among them, 242 GPs matched our inclusion criteria. Due to missing data precluding statistical analysis, 42 participants were excluded, resulting in a final sample of 200 GPs for main outcome (Figure 1).

### Burnout levels and prevalence

According to the visual analog scale, burnout levels were  $33.7 \pm 27.5$ , and 49 GPs (24.5%) were in severe (burnout level  $> 60$ ) (Figure 1 and Table 1).

### Sociodemographic and occupational characteristics

**Sociodemographic variables:** Over the 200 included GPs, 69% were women (n=138). 62.5% of respondents were under 40 years (n=125) and they had a significantly lower burnout level ( $30.9 \pm 27.3$  vs  $38.0 \pm 27.3$ ,  $p=0.038$ ). Most were married or in couple (84.9%), and 36% had children (n=66). Those who were in couple showed a lower burnout rate ( $p=0.007$ ), and a lower prevalence of severe burnout ( $p=0.03$ ). Age, gender or parenthood did not influenced the level of burnout, nor the prevalence of severe burnout.

**Setting characteristics:** The 9.2% of GPs with a practice combining hospital and private, had a higher burnout level ( $p=0.01$ ) and were more affected by severe burnout ( $p=0.05$ ).



**Social practice context:** GPs worked mainly in a group practice (97%) and 7.5% in a health medical house i.e. with others healthcare workers such as nurse or kinesiologists. There was no link between an isolated practice and burnout. Working in health medical house were related to a higher level of burnout ( $p=0.024$ ) and tended to increase the prevalence of severe burnout ( $p=0.08$ ). 29.3% were concerned by supervising students ( $n=12$ ), 70.2% by making home visits ( $n=33$ ), 55.3% by teleconsultations ( $n=26$ ), and 14% had a present secretariat ( $n=28$ ). None of those social characteristics were linked with burnout. More than a half of GPs made emergency night shifts in private practice (53.2%) and 2.1% in emergency departments at hospital. Performing emergency night shifts did not appear to contribute to higher levels of burnout, whether in private practice ( $p=0.74$ ) or at hospital ( $p=0.43$ ).

**Workload:** In our study, 63.5% ( $n=122$ ) of respondents worked more than 45 hours per week and had a significant higher burnout level ( $p=0.007$ ). More than a half of GPs saw 100 weekly consultations and more (54.3%,  $n=25$ ) and had also a higher burnout level ( $p=0.012$ ). The high number of weekly consultations was significantly related to severe burnout ( $p=0.013$ ), whereas the high number of worked hours per week had tendency to increase severe burnout ( $p=0.080$ ) (Figure 2 and Table 1).

## Multivariate analysis

Using burnout as a continuous variable, combining private and hospital practice (coefficient 20.01, 95CI 5.52 to 34.51), and working in health medical house (18.85, 4.52 to 33.18) were linked with a high level of burnout ( $p=0.007$  and  $p=0.001$ ). Beyond 60 hours per week and 100 consultations per week, GPs were significantly in high level of burnout. GPs older than 40 years old tended to have a higher level of burnout (7.04, -0.83 to 14.9,  $p=0.079$ ) (Figure 3).

Using burnout as a qualitative variable, being single multiplied risk of severe burnout by more 2.5 (2.63, 1.12 to 6.25). The risk of severe burnout was multiplied by 3 for GPs that combined private and hospital practice (OR = 3.11, 95CI 1.00 to 9.72,  $p=0.050$ ), as well as for GPs working in medical house (2.98, 1.02 to 8.70). The risk of severe burnout was increased by 57% for every 10 more hours (1.57, 1.20 to 2.04,  $p<0.001$ ) per week and by 42% for every 10 more consultations per week (1.42, 1.10 to 1.84,  $p<0.001$ ) (Figure 4).

### Sensitivity analysis

We computed sensitivity analyses on the threshold for severe burnout. At posteriori, the threshold of 60 was at the 76<sup>th</sup> percentile, thus close to the 75<sup>th</sup> percentile. All aforementioned results were similar using cut-offs set at 55 (74<sup>th</sup> percentile) or 65 (82<sup>th</sup> percentile).

## 2.6 Discussion

The main findings are a high prevalence of severe burnout in GPs, affecting predominantly those under 40 years old. Combining private and hospital practice and working in health medical house multiplied the risk of severe burnout by three. Risk increased with working time and consultations per week. The main protective factor was being married or in couple, decreasing by two third the risk of severe burnout.

## Burnout prevalence

In our study, a quarter of GPs were in severe burnout, whereas literature described lower prevalence (5, 35, 36). A recent meta-analysis on French physicians burnout reported that more than half of GPs were in burnout and 5% in severe burnout (37). This difference in our study may be due to the evaluation tool that differed between studies. Historically, the Maslach Burnout Inventory (MBI) is a questionnaire developed by Christina Maslach et Susan Jackson in 1981. The MBI assesses the three dimensions of burnout: emotional exhaustion, depersonalization, and personal accomplishment (38). Even if the MBI is commonly used to measure burnout, we note that it was not designed for the diagnosis of burnout. The MBI allows a detailed classification of the degree of burnout: no burnout, low, intermediate, or severe (39). Despite the visual analog scale of burnout is less precise, it is a simple and easy tool to assess burnout, that may be of particular interest considering its influence on quality of primary cares, decision-making capacity and medical errors (13). Burnout can lead to greater dissatisfaction at work (26,28), necessity of changing practice, or even terminating their medical career. Physicians with burnout have a 2-fold increased risk to deliver unsafe care, have unprofessional behaviors, and cause patient dissatisfaction (14, 15). In the worst case, burnout can be step towards suicide (25). Nevertheless, a meta-analysis showed that the suicide of physicians decreased over time, especially in Europe (21, 40). Burnout is also associated with physical, psychological, occupational, and social consequences, such as cardiovascular disease, musculoskeletal pain, toxic consumption, obesity, sleep disorders or dehumanization (15).

## Risk factors

We demonstrated that main risk factors of burnout were combining hospital and private practice, working in health medical house, having a long duration at work and a great number of consultations, like what we find in literature (24, 28, 41). Indeed, solo practice allows a high level of autonomy, possibility to adapt working hours, to manage finances and to diversify practice (24). Being a part time employee in health center or in hospital allows social cohesion, less administrative tasks, and fixed income (42), but it imposes lower autonomy, poorer time management and working methods (42, 43). In our study, GPs who were under 40 years old had less burnout than older, contrary to what we founded in many European studies (4, 22, 30, 44). Youngs doctors had to build a family and manage their professional practice in the same time. Expectations about family life and work-life balance (45) can make them to stop the specialty (17, 44, 45, 46). Older GPs probably exceed their limits, that increase dissatisfaction (45) and make them to think about early retirement (17, 45, 47). In addition, as the physician's profession becomes feminized, women want a shortest duration at work and organized her time between family activities and job, that increase satisfaction at work (48). Severe burnout was linked with a higher workload and many consultations. The income of GPs depending on the number of consultations, they often made concessions about long duration at work (24, 49). However, medical shortage requires doctors to see more and more patients, especially rural medical providers (17, 50). In our study, emergency activity was not a risk factor of severe burnout, unlike what has been described in the literature (11, 35, 51). Using an electronic system of consultation can lead to a lack of clinical information and generate additional work to diagnosis (52).

## Protective factors

In our study, the main protective factor was being married or in a relationship, which some studies have also shown (11, 53-55). Indeed, couple represent a source of support and personal development (56, 57), and link with well-being and life satisfaction (58). Even if we did not notice a significant relation between parenthood and burnout, having children permit to develop empathy (59), which is an essential element to build a good doctor/patient relationship (60). Building a family brings a real social benefit and allows to diversify life activities (61). However, marriage and parenthood are not always protective factors (27, 57, 62). It might lead to emotional exhaustion (63), and could represent difficulties in the career management, professional responsibilities, and children education (62). GPs who train resident appear like in lower burnout because this increase social interactions and experience sharing (22, 25, 49). In the same way, participating to Balint groups increase self-confidence, social cohesion and protect from burnout (64-66). GPs commonly describe administrative tasks as a load (18, 20, 67). Transferring duties to secretariat helped to favor better use of time for medical tasks, reducing stress and well-being (68, 69). Making home visits seemed to be linked to better work satisfaction and better freedom of practice (70). Finally, GPs can propose improvement ways to regain good job satisfaction and motivation to continue this specialty (47, 48, 71, 72).

## Limitations

Our study has limitations. Our study inherits the limitations from cross-sectional studies; however it allows a greater number of responses (73). As a result, the study may be subjected to self-reporting bias. Not all physicians responded to the questionnaire which may affect the representativeness of our results. Some Councils may also have disclosed the questionnaire less, which may have weakened geographical representativeness. In addition, GPs more affected by

burnout might have been more prone to answer the questionnaire, but this putative bias is common to any previous questionnaires of prevalence of burnout among GPs from other countries (1-8). Nevertheless, respondents were sufficient to assess influencing factors of burnout. Besides, data retrieved on our secondary outcomes concerned variables associated with burnout according to literature. Some GPs may have been refrained by the length of the questionnaire, due to diversity of factors explored. Even if females were more represented in our study than males, sex ratio followed the gender representation of French GPs. There could also be measurement bias occurring from the scale used, which is not yet a validate scale for burnout prevalence as well as thresholds. However, choosing “60” like severe burnout thresholds was relevant, compared to other validated scale thresholds (32, 33). For categorical variables, extremes were chosen as reference, even if they were not the most represented class. This study should be repeated in a near future to assess the effects of the COVID-19 pandemic on burnout of GPs.

## 2.7 Conclusion

GPs are at high risk of burnout with 24.5% of them in severe burnout, affecting predominantly those over 40 years old. Main risks factors were combining hospital and private practice, working in health medical house, having a higher workload and many consultations. The main protective factor was being in couple. It is necessary to consider the mental health of GPs to reduce its impact on the quality-of-care French medicine.

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## Tables

**Table 1.** Characteristics of population

	n	Burnout			
		Levels (quantitative variable)		Prevalence of severe burnout (qualitative variable)	
		Mean ± SD	p-value	n (%)	p-value
<b>Sociodemographic</b>					
<b>Age</b>	200				
<40	125	30.9±27.3	<b>0.038</b>	26 (20.8%)	0.22
>40	75	38.0±27.3		23 (30.7%)	
<b>Sex</b>	200				
Female	138	33.9±27.7	0.78	34 (24.6%)	0.89
Male	62	32.7±27.0		15 (24.2%)	
<b>Marital status</b>	185				
Married or couple	157	30.3±26.6	<b>0.007</b>	31 (19.75%)	<b>0.03</b>
Single	26	45.0±26.8		11 (39.3%)	
<b>Parenthood</b>	183				
≥1 children	66	32.3±26.2	0.85	27 (23.1%)	0.8
No children	117	33.2±29.0		15 (22.7%)	
<b>Setting characteristics</b>					
<b>Private practice only</b>	153				
Yes	139	28.4±25.6	<b>0.01</b>	27 (19.4%)	<b>0.05</b>
No	14	48.4±31.4		6 (42.9%)	
<b>Isolated</b>	200				
Yes	6	48.2±24.6	0.26	2 (33.3%)	0.34
No	194	33.1±27.5		47 (24.2%)	
<b>Health medical house</b>	200				
Yes	15	51.0±28.1	<b>0.02</b>	7 (46.7%)	<b>0.08</b>
No	185	32.2±27.0		42 (22.7%)	
<b>Social environment</b>					
<b>Resident training</b>	41				
Yes	12	47.5±25.0	0.97	4 (33.3%)	0.79
No	29	43.2±29.3		10 (34.5%)	
<b>Home visits</b>	47				
Yes	33	46.4±26.4	0.45	12 (36.4%)	0.77
No	14	40.4±29.6		4 (28.6%)	
<b>Teleconsultations</b>	47				
Yes	26	42.9±28.5	0.65	9 (34.6%)	0.95
No	21	46.7±26.1		7 (33.3%)	
<b>Administrative support</b>	200				
Yes	28	40.7±28.7	0.13	9 (32.1%)	0.51
No	172	32.4±27.2		40 (23.3%)	
<b>Workload</b>					
<b>Working time, hours per week</b>	192				
<25	18	18.7±26.5	<b>0.007</b>	2 (11.1%)	0.08
35	52	29.4±26.1		9 (17.3%)	
45	74	36.9±27.7		20 (27.0%)	
55	45	37.4±27.3		15 (33.3%)	
>60	3	65.7±5.9		2 (66.7%)	
<b>Consultations per week</b>	46				
<50	6	11.8±19.6	<b>0.012</b>	0 (0%)	<b>0.013</b>
50-100	15	48.9±20.4		3 (20.0%)	
100-150	21	48.8±27.8		10 (47.6%)	
>150	4	66.3±4.9		3 (75.0%)	
<b>Emergency night shifts ...</b>					
<b>... in private practice</b>	47				
Yes	25	43.3±25.3	0.74	8 (32.0%)	0.98
No	22	46.0±29.8		8 (36.4%)	
<b>... in an hospital</b>	47				
Yes	1	25±27.2	0.43	0 (0%)	0.17
No	46	45.0±27.4		16 (34.8%)	

## Figures

Figure 1. Flow chart.

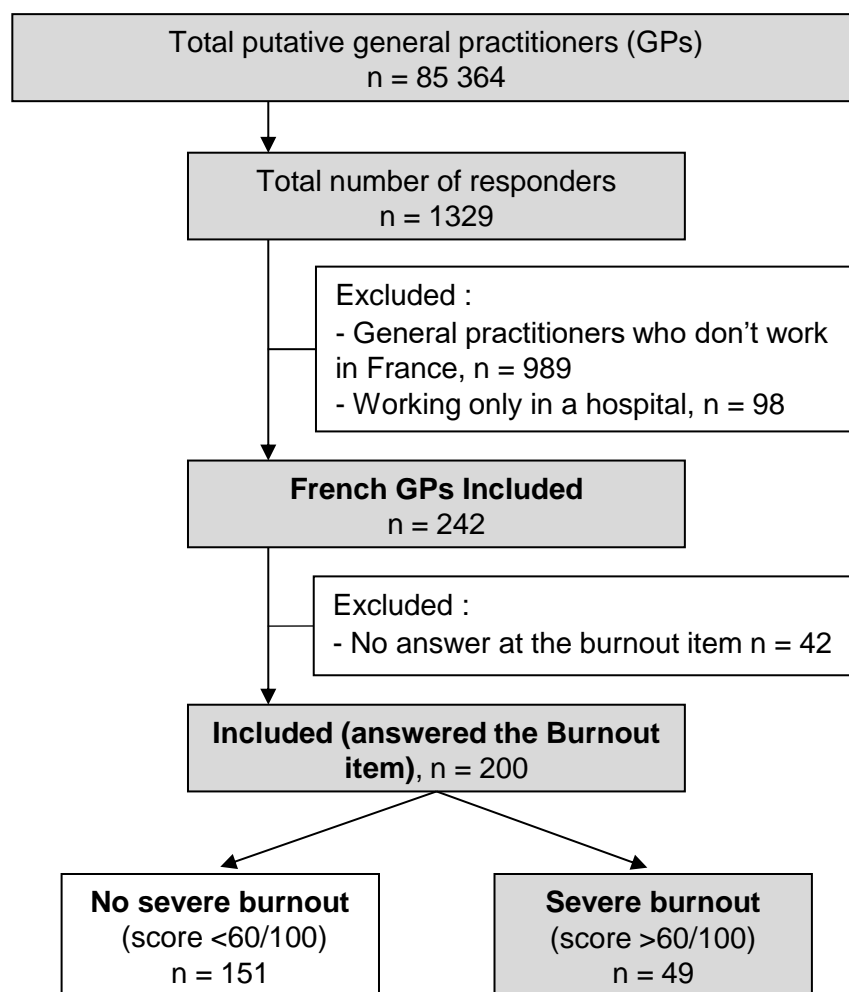


Figure 2. Mean levels of burnout and prevalence of severe burnout, depending on GPs characteristics.

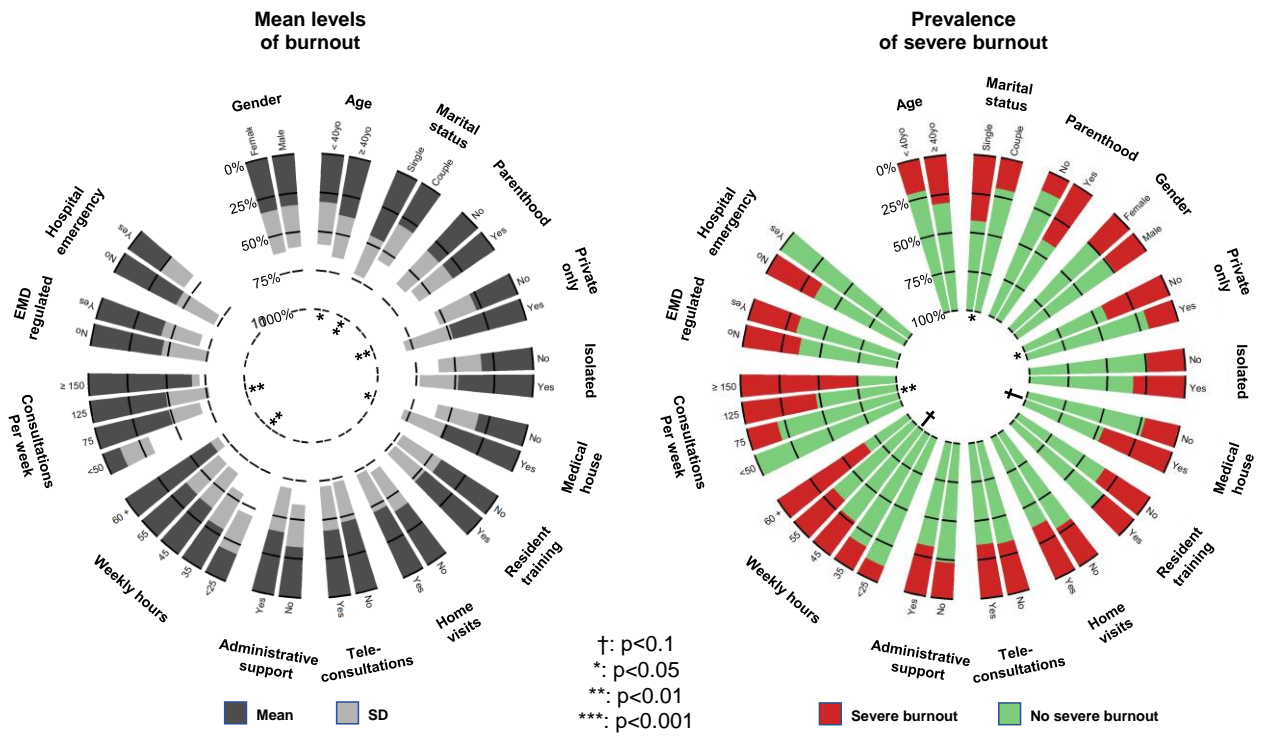


Figure 3. Factors influencing levels of burnout of GPs (quantitative variable).

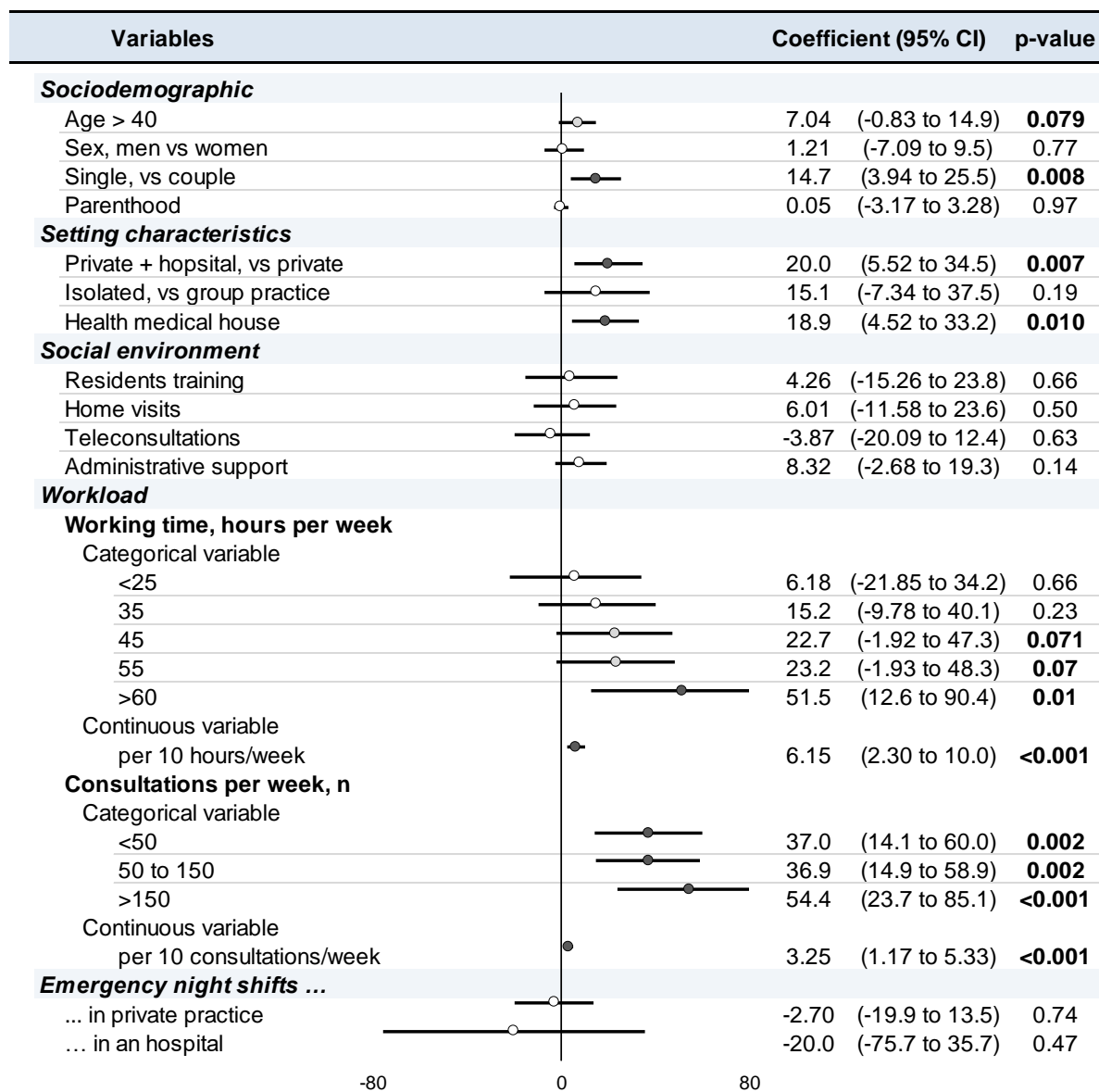
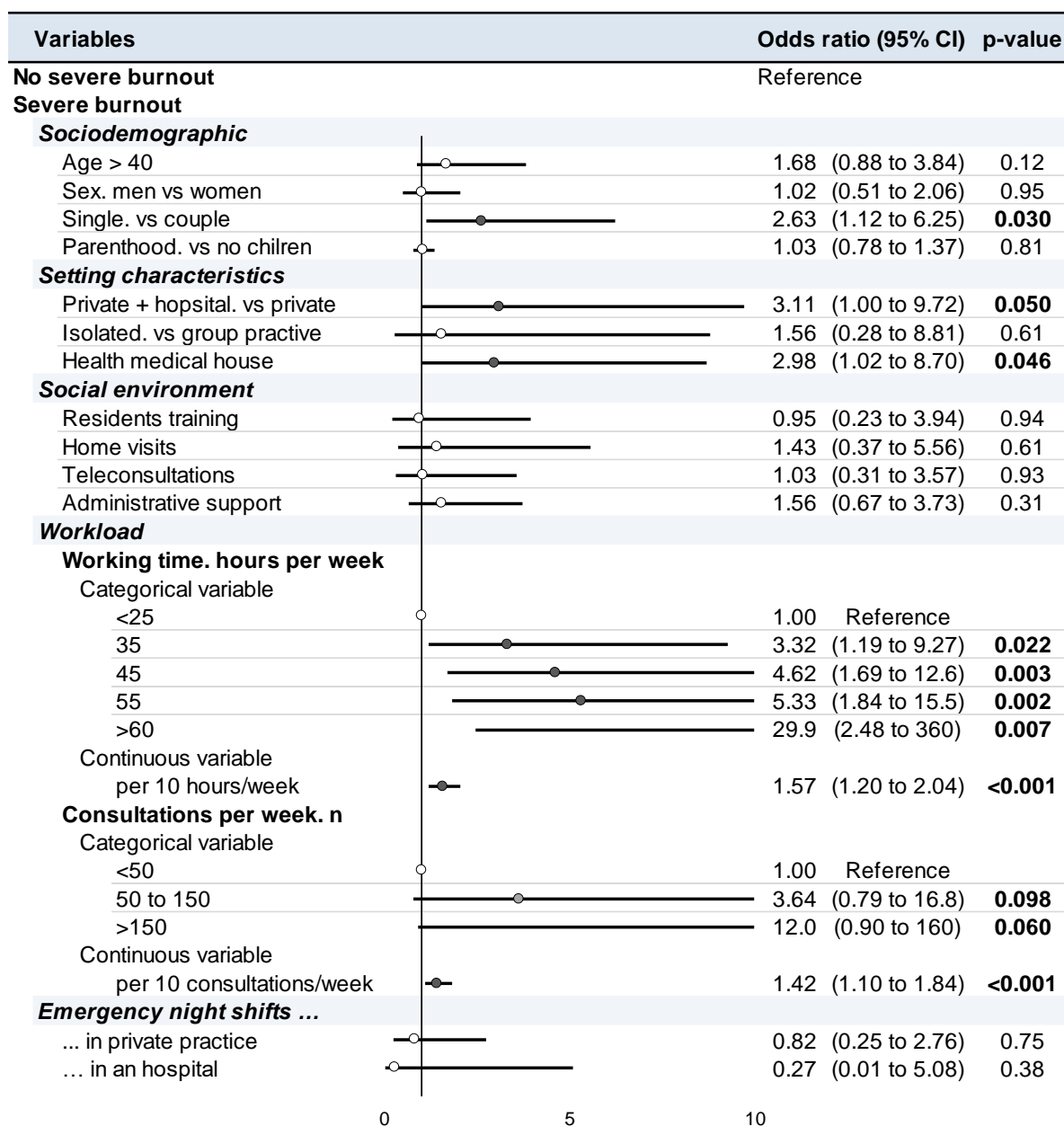


Figure 4. Factors influencing prevalence of severe burnout in GPs (qualitative variable)



### 3. Conclusion

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Les médecins généralistes sont une population à haut risque de burnout, avec 24.5% d'entre eux en burnout sévère, notamment chez les plus de 40 ans. Avoir une pratique mixte, exercer en maison de santé pluridisciplinaire, avoir un temps de travail et un nombre de consultations hebdomadaire important apparaissent comme étant des facteurs de risque de burnout sévère. Le fait d'être en couple protège contre l'épuisement professionnel. Il apparaît urgent de considérer la santé mentale des médecins généralistes pour réduire l'impact sur la qualité des soins médicaux français.

Clermont-Ferrand, le  
Doyen de l'UFR de Médecine,  
Pierre CLAVELOU



Clermont-Ferrand, le 22/11/2021  
Président du Jury,  
Philippe VORILHON

A handwritten signature in black ink, appearing to be 'Vorilhon', written over the printed name of the President of the Jury.

**(Conseil national de l'ordre des médecins)**

## **SERMENT D'HIPPOCRATE**

Au moment d'être admis(e) à exercer la médecine, je promets et je jure d'être fidèle aux lois de l'honneur et de la probité.

Mon premier souci sera de rétablir, de préserver ou de promouvoir la santé dans tous ses éléments, physiques et mentaux, individuels et sociaux.

Je respecterai toutes les personnes, leur autonomie et leur volonté, sans aucune discrimination selon leur état ou leurs convictions. J'interviendrai pour les protéger si elles sont affaiblies, vulnérables ou menacées dans leur intégrité ou leur dignité. Même sous la contrainte, je ne ferai pas usage de mes connaissances contre les lois de l'humanité.

J'informerai les patients des décisions envisagées, de leurs raisons et de leurs conséquences. Je ne tromperai jamais leur confiance et n'exploiterai pas le pouvoir hérité des circonstances pour forcer les consciences.

Je donnerai mes soins à l'indigent et à quiconque me les demandera. Je ne me laisserai pas influencer par la soif du gain ou la recherche de la gloire.

Admise dans l'intimité des personnes, je tairai les secrets qui me seront confiés. Reçue à l'intérieur des maisons, je respecterai les secrets des foyers et ma conduite ne servira pas à corrompre les mœurs. Je ferai tout pour soulager les souffrances. Je ne prolongerai pas abusivement les agonies. Je ne provoquerai jamais la mort délibérément.

Je préserverai l'indépendance nécessaire à l'accomplissement de ma mission. Je n'entreprendrai rien qui dépasse mes compétences. Je les entretiendrai et les perfectionnerai pour assurer au mieux les services qui me seront demandés.

J'apporterai mon aide à mes confrères ainsi qu'à leurs familles dans l'adversité.

Que les hommes et mes confrères m'accordent leur estime si je suis fidèle à mes promesses ; que je sois déshonoré(e) et méprisé(e) si j'y manque.

## **SERMENT D'HIPPOCRATE**

En présence des Maîtres de cette FACULTE et de mes chers CONDISCIPLES, je promets et je jure d'être fidèle aux lois de l'Honneur et de la Probité dans l'exercice de la Médecine.

Je donnerai mes soins gratuits à l'indigent et je n'exigerai jamais un salaire au-dessus de mon travail. Admis dans l'intérieur des maisons, mes yeux ne verront pas ce qui s'y passe, ma langue taira les secrets qui me seront confiés et mon état ne servira pas à corrompre les mœurs ni à favoriser le crime.

Respectueux et reconnaissant envers mes MAÎTRES, je rendrai à leurs enfants l'instruction que j'ai reçue de leurs pères.

Que les HOMMES m'accordent leur estime si je suis fidèle à mes promesses. Que je sois couvert d'OPPROBRE et méprisé de mes confrères si j'y manque.





**Chloé BAREL**

**Niveau d'épuisement professionnel chez les médecins généralistes français :  
Facteurs de risques et des facteurs protecteurs**

Thèse pour le Doctorat de Médecine Générale, Clermont-Ferrand, Année 2021

**Résumé**

**Contexte** : De nombreux travaux internationaux retrouvent un haut niveau d'épuisement professionnel chez les médecins généralistes. Cependant, peu d'études en quantifient le risque en combinant tous les facteurs.

**Objectif** : L'objectif était d'évaluer le niveau d'épuisement professionnel des médecins généralistes français libéraux et de mettre en lumière les facteurs de risque et les facteurs protecteurs.

**Méthode** : Le questionnaire international COVISTRESS, diffusé électroniquement, a permis de collecter des données démographiques et professionnelles, gérées par le logiciel sécurisé REDCap®. Les critères d'inclusion étaient de travailler exclusivement en France, et d'avoir une pratique libérale. Le niveau d'épuisement professionnel a été évalué grâce à l'utilisation d'une échelle visuelle analogique (EVA) allant de 0 à 100. Des analyses univariées puis multivariées par régression binaire ont été réalisées pour étudier les facteurs de risque et protecteurs du burnout sévère.

**Résultats** : 200 médecins généralistes français ont été inclus. 24.5% étaient en burnout sévère (EVA>60/100), principalement les plus de 40 ans ( $30.9 \pm 27.3$  vs  $38.0 \pm 27.3$ ,  $p=0.038$ ). Les facteurs de risque retrouvés étaient la pratique d'un exercice mixte (OR 3.11, CI 95% 1.00-9.72,  $p=0.05$ ) et de travailler dans une maison de santé pluridisciplinaire (2.98, 1.02-8.7,  $p=0.046$ ). Le risque de burnout sévère était augmenté de 57% par tranches de 10 heures en plus par semaine (1.56, 1.20-2.04,  $p<0.001$ ) et de 42% par tranches de 10 consultations hebdomadaires supplémentaires (1.42, 1.10-1.84,  $p<0.001$ ) IC). Être en couple était un facteur protecteur et diminuait de 62% le risque d'être en burnout sévère (0.38, 0.16-0.89,  $p=0.03$ ).

**Conclusion** : Les médecins généralistes sont une population à haut risque de burnout, avec 24.5% d'entre eux en burnout sévère, notamment chez les plus de 40 ans. Avoir une pratique mixte, exercer en maison de santé pluridisciplinaire, avoir un temps de travail et un nombre de consultations hebdomadaire important apparaissent comme facteurs de risque de burnout sévère. Être en couple protège significativement contre l'épuisement professionnel. Il est urgent de considérer la santé mentale des médecins généralistes pour réduire l'impact sur la qualité des soins médicaux français.

**Mots-clés**

Médecins généralistes, épuisement professionnel, santé mentale

**Membres du Jury**

**Président** : Monsieur VORILHON Philippe, Professeur, UFR de Médecine et des Professions Paramédicales de Clermont-Ferrand

**Directeur de thèse** : Monsieur DUTHEIL Frédéric, Professeur, CHU Clermont-Ferrand, Santé Travail Environnement

**Invités** : Professeur Georges BROUSSE, Professeur, CHU Clermont-Ferrand, Psychiatrie adulte et Addictologie

Monsieur TANGUY Gilles, Maître de Conférences Universitaire, UFR de Médecine et des Professions Paramédicales de Clermont-Ferrand

**Date de la soutenance** : 9 décembre 2021