

ORIGINAL

Burnout syndrome and socioeconomic level of resident doctors in public hospitals in Maracay, Venezuela

Síndrome de Burnout y nivel socioeconómico de médicos residentes de hospitales públicos en Maracay, Venezuela

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ABSTRACT

Introduction: burnout syndrome is an adaptive psychological disorder, a consequence of chronic work stress. It commonly affects health professionals since, from the beginning of their careers, they face a series of stressors specific to their practice, which could be intensified due to the socioeconomic situation that Venezuela is going through. Consequently, the objective of the present research was to determine the prevalence of Burnout syndrome and the relationship with the socioeconomic level of general surgery residents from two public hospitals in Maracay, Venezuela, during the year 2023.

Method: an observational, descriptive, cross-sectional and correlational design was carried out. The sample consisted of general surgery residents from two public hospitals. For data collection, the standardized Maslach Burnout Inventory and Graffar-Méndez Castellano questionnaires were used.

Results: 43 surgery residents participated, mostly female (51,16 %), aged between 25 and 30 years (81,4 %). The prevalence of the syndrome was 20,93 %, with emotional exhaustion and depersonalization being the most frequent scales (79 % and 70 %, respectively). Regarding the socioeconomic stratum, the majority were upper middle class (64,47 %). No association was found between the Burnout syndrome and the socioeconomic level.

Conclusions: the majority of the surgical residents exhibited emotional exhaustion and depersonalization, were located in the upper and upper middle-class strata, and no association was found between these variables.

Keywords: Work Stress; Health Personnel; Psychological Exhaustion; Socioeconomic Level.

RESUMEN

Introducción: el síndrome de Burnout es un trastorno psicológico adaptativo, consecuencia del estrés laboral crónico. Afecta comúnmente a profesionales de la salud puesto que, desde el inicio de sus carreras, afrontan una serie de factores estresantes propias de su ejercicio, los cuales se podrían intensificar debido a la situación socioeconómica que atraviesa Venezuela. En consecuencia, el objetivo de la presente investigación fue determinar la prevalencia del síndrome de Burnout y la relación con el nivel socioeconómico de médicos residentes de cirugía general de dos hospitales públicos en Maracay, Venezuela, durante el año 2023.

Método: se realizó una investigación con un diseño observacional, descriptivo, transversal y correlacional. La muestra estuvo conformada por los residentes de cirugía general de dos hospitales públicos. Para la recolección de datos se emplearon los cuestionarios estandarizados de Maslach Burnout Inventory y el de

Graffar-Méndez Castellano.

Resultados: participaron 43 residentes de cirugía, en su mayoría de sexo femenino (51,16 %), con edades entre 25 y 30 años (81,4 %). La prevalencia del síndrome fue 20,93 %, siendo el cansancio emocional y la despersonalización las escalas más frecuentes (79 % y 70 %, respectivamente). En cuanto al estrato socioeconómico, la mayoría resultó clase media alta (64,47 %). No se evidenció asociación entre el síndrome de Burnout y el nivel socioeconómico.

Conclusiones: la mayoría de los médicos residentes de cirugía exhibieron cansancio emocional y despersonalización, se ubicaron en el estrato de la clase alta y media alta, y no se evidenció asociación entre estas variables.

Palabras clave: Estrés Laboral; Personal de Salud; Agotamiento Psicológico; Nivel Socioeconómico.

INTRODUCTION

In medicine, “stress” is defined as the set of reactions experienced by an individual in a given situation, which require an adaptive effort to return to a state of equilibrium and are generally associated with symptoms such as anxiety, concentration problems, irritability, and fatigue, among others.⁽¹⁾

Currently, it is believed that stress and individuals’ adaptive responses to work demands are much greater than before, due to increased competitiveness, exponential technological changes, high levels of unemployment, and economic recession.⁽¹⁾

Burnout syndrome is considered to be the chronic form of work-related stress,⁽¹⁾ as it is defined as an individual’s response to a state of chronic work-related stress, involving negative attitudes and feelings towards professional performance,⁽²⁾ characterized by a state of emotional, physical, and mental exhaustion.⁽³⁾

The World Health Organization (WHO) has classified burnout syndrome as a significant disease due to its high incidence in the global working population. Its prevalence in European and Latin American countries has been reported to range from 2,7 % to 86,5 %.⁽³⁾

Healthcare professionals are highly susceptible to developing this syndrome because they are constantly exposed to multiple stressors in their workplace.^(4,5) The prevalence has been reported to vary according to medical specialty, ranging from around 48 % in general practitioners, 60 % in family doctors, 32 % in general surgeons, 44 % in anesthesiologists, and 76 % to 85 % in internists and residents.⁽⁶⁾

Risk factors associated with this syndrome include age, with young people being more prone to it; gender, marital status, work overload, and socioeconomic factors.⁽⁶⁾

In general, socioeconomic factors have been linked to stress and quality of life. Demographic studies indicate that lower-income populations have higher mortality, morbidity, and disability rates than higher-income populations.⁽⁷⁾ In this regard, research conducted by Baik et al.⁽⁸⁾ in the United States showed that people with low incomes exhibited the highest levels of stress. Pena-Gralle et al.⁽⁹⁾ found that men with low socioeconomic status are more prone to depression. Another relevant finding was that exposure to psychosocial stressors at work was directly associated with an increased risk of depression for both men and women.

In the case of Venezuela, any individual’s stress situation can be intensified by the collective crisis the country is experiencing. The long and deep economic recession the nation is experiencing has impacted the living conditions of the general population. The government has lost more than 75 % of its gross domestic product, resulting in the extreme degradation of the Venezuelan middle class, where nine out of ten families that were considered middle class at the beginning of the last decade were no longer classified as such by 2020. Evidence shows that a significant portion of the middle class’s human capital and skills have emigrated from the country. At the same time, those who remain in Venezuela suffer from deteriorating conditions in the context of economic depression and humanitarian crisis.⁽¹⁰⁾

In light of these circumstances, it was deemed appropriate to investigate the prevalence of burnout syndrome among general surgery residents in two public hospitals in the city of Maracay, Venezuela, and to examine its relationship with socioeconomic status.

METHOD

An observational, descriptive, cross-sectional, and correlational study was conducted through face-to-face surveys. The sample consisted of general surgery residents at two public hospitals in the city of Maracay, Aragua state, Venezuela, during 2023. The selected hospitals have the most significant number of resident physicians in the city. Sampling was non-probabilistic, based on convenience. Two standardized, valid, and reliable survey instruments were used: the Maslach Burnout Inventory Test and the Graffar-Méndez Castellano Scale. The information obtained was recorded and tabulated in Microsoft Excel spreadsheets for subsequent

descriptive analysis, which included calculating frequencies, percentages, and 95 % confidence intervals. To determine the degree of association, Chi-square (χ^2) hypothesis tests were performed, and the Phi correlation coefficient (ϕ) was calculated with a level $\alpha = 0,05$. The free software Jamovi version 2.3, year 2022, was used.

RESULTS

The sample was represented by 51,16 % female resident physicians (CI95 % 36,22 % - 66,10 %) and 48,84 % male (CI95 % 33,9 % - 63,78 %), mostly aged between 25 and 30 years (81,4 %, CI95 % 33,9 % - 63,78 %) (table 1).

In terms of socioeconomic status, most were in the highest levels, with level II being the most common (60,47 %; CI95 % 45,85 - 75,08), followed by level I (30,23 %; CI95 % 16,51 - 43,96). Only a small percentage were in stratum III (9,30,95 %CI 0,62-17,98) (table 1).

Table 1. Sociodemographic characteristics and socioeconomic status of general surgery residents in public hospitals in Maracay, Venezuela, 2023

Variable	N	%	CI _{95 %}
Sex			
Female	22	51,1	36,22 - 66,10
Male	21	48,84	33,90 - 63,78
Age			
25 - 30	35	81,40	69,76 - 93,03
> 30 years	8	18,60	6,97 - 30,24
Socioeconomic level			
Stratum I	13	30,2	16,51 - 43,96
Stratum II	26	60,47	45,85 - 75,08
Stratum III	4	9,30	0,62 - 17,98

Regarding the prevalence of the different scales of Burnout Syndrome, 79,07 % of physicians exhibited emotional exhaustion (95 %CI 66,9 % - 91,2 %), 69,77 % showed depersonalization (CI95 % 56,0 % - 83,5 %), and 23,5 % showed low personal fulfillment (CI95 % 10,6 % - 35,9 %). Consequently, it can be stated that emotional exhaustion and depersonalization were the most frequent conditions found in the majority of residents working in state health centers (table 2).

The prevalence of burnout syndrome was close to 21 % (CI95 % 8,88 % - 33,10 %), which can be classified as moderate. With this finding, it can be estimated that between 8 % and 33 % of surgical residents are prone to burnout syndrome (table 2).

Table 2. Dimensions associated with burnout syndrome and its prevalence among general surgery residents in public hospitals in Maracay, Venezuela, 2023

Variable	N	%	CI _{95 %}
Dimensions			
Emotional exhaustion	34	79,07	66,90 - 91,20
Depersonalization	30	69,77	56,00 - 83,50
Low personal fulfillment	10	23	10,60 - 35,90
Prevalence			
Residents with Burnout Syndrome	9	20,9	8,80 - 33,10
Residents without Burnout Syndrome	3	7,9	66,91 - 91,23

To determine whether there were differences in socioeconomic status and the prevalence of burnout syndrome, a chi-square hypothesis test (χ^2) was performed, yielding $\chi^2 = 0,12$ with $p = 0,941$, indicating that there were no statistically significant differences. To determine whether there was any level of association, the Phi (ϕ) value calculated was 0,053, indicating that there is no evidence linking socioeconomic status on the Graffar scale with the occurrence of Burnout syndrome (table 3).

Table 3. Association between socioeconomic status and the prevalence of Burnout syndrome among general surgery residents in public hospitals in Maracay, Venezuela, 2023

Socioeconomic level		With Burnout syndrome	Without burnout syndrome	Total
I	Observed	3	10	13
	Expected	2,72	10,28	13
II	Observed	5	21	26
	Expected	5,44	20,56	26
III	Observed	1	3	4
	Expected	0,84	3,16	4
Total	Observed	9	34	43
	Expected	9	34	43

Note: Calculated statistic $X^2 = 0,12$; $p = 0,941$; $\phi = 0,053$

DISCUSSION

It has been reported that young healthcare professionals are at a greater risk of developing burnout syndrome.⁽¹³⁾ However, this study showed that, although most of the participants were young, under 30 years of age, the prevalence of the syndrome was low compared to other studies, such as that conducted by Losada-Morales et al.⁽¹⁴⁾, with 97 % in resident doctors in traumatology and anesthesiology in Chile, or the data provided by Cerpa-Berrelleza et al.⁽⁶⁾, who state that for resident physicians, the prevalence ranges from 76 % to 85 %.

The results were more similar to those obtained by Ramírez-Pérez et al.⁽¹⁵⁾, with resident physicians in Madrid, who reported a prevalence of 29,4 %; or Cuevas et al.⁽¹⁶⁾, with 20,2 % for resident surgeons in Colombia.

However, the fact that the prevalence of the syndrome is not so high does not reduce the risk of suffering the consequences of work-related stress. A high percentage of participants exhibited the dimensions of emotional exhaustion and depersonalization.

In the specific case of emotional exhaustion, a high prevalence (79 %) was found, which is similar to that reported by other researchers.^(6,15,16,17,18,19) This condition can negatively influence professional practice and manifest itself through emotional symptoms such as irritability, decreased ability to concentrate, and reduced confidence, among others.

Regarding the low or no association between the syndrome and socioeconomic status, the findings were similar to those of Cerpa-Berrelleza et al.⁽⁶⁾, who also reported a low association between these variables. This result was probably obtained because the socioeconomic stratification scale considered aspects related to education and levels of study. Therefore, physicians with undergraduate degrees who pursue a postgraduate degree will necessarily be placed in the middle or upper-middle income scales, even if their income is not particularly high.

Other studies have shown a correlation between economic factors and burnout syndrome. Such is the case of the study conducted by Ahmed et al.⁽²⁰⁾, who found that the symptoms of exhaustion observed in medical oncology fellows were highly associated with the participants' educational debt, as well as other socioeconomic factors.

CONCLUSION

The prevalence of burnout among resident physicians was found to be 20,93 %, with emotional exhaustion being the highest (79 %), followed by depersonalization (70 %) and low personal fulfillment (23,26 %).

These findings are significant because they facilitate the early identification of risks associated with work-related stress. Determining the events or circumstances that trigger this exhaustion would enable the development of solutions and prevent the progression of this type of disorder, which can harm medical practice.

More than 90 % of residents belonged to the upper social stratum, so no association was found between socioeconomic status and the development of the syndrome.

It is recommended that future research in this area examine other economic variables, such as family income level, family expenditure level, and credit and/or debt, in addition to socioeconomic status.

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CONFLICT OF INTEREST

The authors declare that they have no conflicts of interest.

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