

## Original Research Article

# Chronic Fatigue and Its Impact on the Quality of Health Care. “Chronic fatigue and medical attention”

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### Abstract

**Introduction.** Chronic fatigue is a social and professional issue that affects labor, causing poor and constrained medical attention for patients. High demand for labor output from health professionals leads to irritability and depression. This syndrome is usually present in nurses and doctors who work in close contact with other people. Recently, job-related stress due to long work requirements has become one of the major debilitating factors for the mental and physical health of medical students.

**Aim.** Determine the impact of chronic fatigue syndrome on resident physicians and on the quality of medical care.

**Method.** A non-experimental observation was conducted on 50 medical residents of a hospital in Pachuca, Hidalgo, Mexico.

**Results.** 90% of resident physicians report that they work for 30 continuous hours, 10% work 40 hours in three days per week; they show fatigue and emotional distress, people give little importance to rest and sleep well, without imagining the consequences of sleep deprivation and a low in our immune system, low protection and a source of stress. In fact, medical residents are constantly under a special training regime and stressful labor, with academic and working conditions that affect their mood and mental health.

**Conclusion.** Doctors begin the training with a clinical practice legacy of ethical maxims learned by teachers and books, but what happens in practice and daily work, could originate violent emotional shocks.

**Keywords:** *Medical residents, chronic fatigue, health syndrome, depressed mood in healthcare.*

## Introduction

Burnout, professional burnout or fatigue syndrome emerged in the 60's, however, it was not until the 70's, where Freudenberger, a volunteer psychiatrist, reported on his experience working in a clinic, which is why he defines to this syndrome, as: "State of fatigue or frustration that is produced by dedication to a cause, way of life or relationship that does not produce the expected reinforcement" [1]. Recently, the World Health Organization (WHO) has defined it as "a syndrome resulting from chronic work stress that has not been successfully managed [2]. In addition to this, its recent appearance in the International Classification of Diseases (ICD-11) refers to having three important characteristics: feeling of exhaustion (lack of energy), mental distance, negative feelings regarding the place where one works and a feeling of lack of effectiveness and personal fulfillment [3]. In addition to highlighting that work stress is the prelude to mental illnesses [4]. International studies show that burnout syndrome is present in between 27 and 75% of resident doctors and can vary depending on location [5]. According to the Mexican Social Security Institute (IMSS), 75% of Mexicans suffered from fatigue due to work stress [6]. Highlighting that the health sector is one of the most affected [7]. Especially in health professionals who are resident doctors, when they work and study in the hospital setting [8] [9] [10], the combination of both activities with little rest is the main causes of the appearance of this syndrome in this medical profession [11]. Currently as one of the most important causes of weakness that affects the health of professionals [12]. Considering that work stress is highly related to various adverse effects, both physical and mental, especially in health services [13]. Recent studies talk about the association between greater workload and less experience, in turn finding that the appearance of burnout syndrome and depression is more significant in residents and health personnel who work more than 24 hours than in managers. doctors or any other personnel [14]. It is said that resident doctors are a vulnerable population given the high healthcare, intellectual and emotional demands, especially in the first year [15]. In addition to this, the neurobiology related to this condition highlights changes in the control of medical practice, reduction of reasoning, decision making and the ability to persevere in the face of challenges, especially in the face of uncontrollable stress, motivation decreases, as well as communication and professional behavior towards the patient [16]. Therefore, in the best of cases, the students' adaptation process must be present. It is said that one in three people is not able to adapt due to environmental conditions and individual suscepti-

bility, which leads to mood disturbances and complex mental problems that affect the performance of the resident doctor showing obvious behavioral failures and evident slowness in reasoning; This represents a decrease in medical skills for the job [17] [18]. This leads to a reduction in professional performance, identified as significantly affecting the Environment and mental health of doctors in the exercise of their work [19]. Increasing the likelihood of making medical errors [20]. In addition to compromising the quality of care due to the deterioration of empathy with patients. Increasing the risk of committing iatrogenesis, malpractice, low quality of care and increased health expenditure [21]. Especially when, in addition to the burnout syndrome, some type of disorder occurs, such as depression, worldwide the syndrome affects 41-76% of resident doctors, and depression affects 7 to 56% For this reason, Navines and collaborators mention that "Addressing and preventing burnout syndrome during residency continues to be a pending issue, which should take into account not only the psychosocial aspects of the work environment, but also the underlying biological changes in the person." that presents them" [23]. Among the interventions to adopt are promoting occupational health, organizational measures, support from supervisors, feedback, clarification of the professional role, team culture and coping strategies [24].

## Methods

An observational, not experimental design was used on 50 medical residents. The sample consisted of 50 medical residents of the following medical specialties: 7 residents of general surgery, 11 residents of gynecology and obstetrics, 13 residents of family medicine, 9 residents of emergency medicine, and 10 were physicians specializing in pediatrics. The scenario was a public hospital in Pachuca, Hidalgo, in México, during 2015.

## 1. Results

As part of this research, 50 interns (medicine students in the last year of their careers, before social service) were observed, from them: 14% were in general surgery, 22% in the service of gynecology and obstetrics, 26% in family medicine service, while 18% were in the service of emergency medicine and 20% in service of pediatrics. Of these interns, the ones who were found to spend more time in the hospital setting were: in first place, 13 people in family medicine service, followed by 11 people from the department of gynecology and obstetrics, and finally, 10 people from the pediatric ward. (Table 1).

**Table 1.** Reference specialties include 50 domestic undergraduate.

<i>Specialty</i>	<b>General Surgery</b>	<b>Gynecology and obstetrics</b>	<b>Family Medicine</b>	<b>Emergency Medicine</b>	<b>Pediatrician</b>	<b>Total</b>
<b>Total</b>	7	11	13	9	10	<b>50</b>
<b>Percentage</b>	14%	22%	26%	18%	20%	<b>100%</b>

Regarding time worked, 90% of interns reported working during 30 continuous hours, and 10% said they had turned to 40 continuous hours in 3 days in a week. Prevalence of burnout in physicians of the two institutions was 90%. (Table 2).

For each of the stress dimensions, the prevalence was present as follows: 96% of research participants were emotional exhaustion, 94% had symptoms of depersonalization, while 10% were unmotivated to do their job. (Table 3).

The following prevalence's were also found: 100% of surgery interns presented with emotional exhaustion, 100% had symptoms of depersonalization, while 14.28% felt unmotivated to do their job. In the department of gynecology and obstetrics, 100% of respondents were drained emotionally and 90.9% reported symptoms of depersonalization, while 9% were discouraged to do their job. However, the emergency department, 100% had emotional exhaustion, 88% experienced depersonalization, and 11% are unmotivated to work. As for the pediatric interns, 90% showed emotional exhaustion, 100% depersonalization. (Table 4).

## 2. Conceptual framework

The following table presents the main axes to conceptual framework. (see table 5)

### Testimony.

During the emergency rotation of the undergraduate medical school, we used to about 80 appointments during the night shift. On one occasion, [another intern] was so exhausted that a patient with acute cholecystitis, who was to be given a nasogastric tube, placed a Foley catheter for urine drainage instead [of the nasogastric tube]. It was also common to share experiences of vivid dreams related to the work in the hospital, we even asked the results of the laboratory tests to our family. We also had no idea of the time [of day] after the first 30 hours of work without rest, and did not distinguish the day [from] night locked up in the delivery room, with artificial light all the time. *Narrative of doctor during internship*

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**Cases like this make you wonder if there is proper quality of health care. It could be better; would you not agree?**

## 3. Discussion

*There is a prevalence of Burnout syndrome in medical residents, demonstrating that physicians who perform a specialty are likely to develop this syndrome, and therefore this reduces the quality of their work, and in the same way affects both their physical integrity and their emotional health [8] [9] [10] [11] [12] [13] [17] [18]. With these data, we can develop new techniques of training and better work plans which reduce the prevalence of this syndrome in medical professionals, thus allowing them to adequately recover both physically, and improve their quality of care and workforce development. It is important to note that burnout syndrome manifests itself and negatively impacts the health of medical residents and that, regardless of affecting their quality of life, it affects the quality of care that patients receive [19] [20] [21]. These results make it possible to detect areas of opportunity, including reducing the workload of residents, which would increase the quality of health care.*

## 4. Conclusions

*Emotional stress arises in health professionals as a result of overwork and extreme energy requirements, which triggers physical, emotional and attitudinal exhaustion. However, the development of this syndrome will depend on the personality of the professional and the organization of the place where he works, as the disruption in the workplace threatens the order and the performance capability of the resident physician. This occurs when there is a lack of clarity of roles and tasks that must be performed, in addition there are factors such as having bad relationships with management, union or institution, which increases the risk consider-*

**Table 2.** Prevalence of Burnout syndrome according to the scale of Maslach

	Total Internal Medical Undergraduate	Prevalence of Burnout Syndrome
<b>Total</b>	50	45
<b>Percentage</b>	100%	90%

**Table 3.** Prevalence of Burnout Syndrome by Maslach Inventory.

	Emotional exhaustion	Depersonalization	Personal fulfillment	Sick	Total of respondents
<b>Total</b>	48	47	5	45	<b>50</b>
<b>Corresponding</b>	96%	94%	10%	90%	<b>100%</b>

ably and, in combination with other factors, can lead to gradual increase of the syndrome.

This syndrome significantly impacts physicians and health personnel regardless of sex or age when they are exposed to the previously mentioned conditions, regardless of whether they work for a public or private health institution.

**Ethical responsibilities Protection of people and animals** The authors declare that no experiments have been conducted on humans or animals for this research.  
**Confidentiality of the data** The authors declare that the names of the residents or patients do not appear in this article.

**Right to privacy and informed consent** The authors declare that patient data does not appear in this article.

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### Authorship

MEGH: original idea of the project, design of the research, data collection, elaboration of the manuscript and analysis of the information. JCRL: original idea of the project, design of the research, data collection, elaboration of the manuscript analysis of the information, revision and critical analysis of the manuscript, design and structuring of the final version of the article. EGTO, ORFCH, CTSP, MCLZ, LCHE, and JRV: elaboration of the manuscript and analysis of the information, revision and critical analysis of the manuscript, Literature review and support in the application of surveys.

### Conflict of interests

The authors declare that there is no conflict of interest for the publication of this research paper.

**Artificial Intelligence.** The authors declare that AI was not used in the preparation of this research.

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**Table 4.** Prevalence by Specialty of Burnout syndrome, dimensions obtained by Maslach Inventory.

TOTAL MIP	Emotional exhaustion	Depersonalization	Personal fulfillment	Sick	Respondents MIP
	48	47	5	45	50
	96%	94%	10%	90%	100%
Surgery					
7	7	7	One	6	7
100%	100%	100%	14.28%	85.71%	14%
OB GYN					
11	11	10	One	10	11
100%	100%	90.90%	9.09%	90.90%	22%
Family and Internal Medicine					
13	12	11	0	11	13
100%	92.30%	84.61%	0%	84.61%	26%
Emergency					
9	9	8	One	8	9
100%	100%	88.88%	11.11%	88.88%	18%
Pediatrics					
10	9	10	2	2	10
100%	90%	100%	20%	20%	20%

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