

# Burnout syndrome and associated factors among medical doctors and nurses in the internal medicine service of Dr. Gustavo Fricke Hospital

## Abstract

**Introduction:** Occupational burnout consists on a chronic adaptive disorder linked to the psychosocial demands of working with people, where a prolonged exposure to demanding factors in the workplace results in long-term stress, fatigue, and irritability. According to the Maslach Burnout Inventory, its diagnostic dimensions are emotion exhaustion, depersonalization and lack of personal accomplishment.

**Objective:** This study expected to find prevalence of Burnout Syndrome (BS) among medical and nursing staff of the Medicine Service of Hospital Dr. Gustavo Fricke in Viña del Mar, Chile. The study also looked for risk factors and protective factors involved in the development of BS in these cases.

**Method:** Descriptive cross-sectional analysis with simple random sampling, corresponding to 74% of total doctors and nurses among Hospital Gustavo Fricke's internal medicine service. Two assessment scales were applied: Maslach Burnout Inventory (MBI) and a questionnaire that assesses risk factors and protective factors for BS development.

**Results:** 38 medical doctors and 14 nurses were included. Median values in the dimensional scales of MBI were of 23.9 for emotional exhaustion, 31.9 for personal accomplishment and 10 for depersonalization. There were no findings of proper BS among the participants, but moderate to high levels of emotional exhaustion and depersonalization were found. We didn't see association between BS and sociodemographic variables.

**Conclusion:** There were no BS among doctors and nurses of the Internal Medicine Service of Hospital Gustavo Fricke, but moderate to high levels of EE and DP were found among this population, which might indicate development of BS in the near future.

**Keywords:** burnout, medical staff, nursing staff, chronic stress

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## Introduction

Occupational burnout consists on a chronic adaptive disorder linked to the psychosocial demands of working with people, where a prolonged exposure to demanding factors in the workplace results in long-term stress, fatigue, and irritability, ultimately leading to emotional exhaustion, cynicism, and depersonalization in relationships with colleagues.<sup>1,2</sup> Achieving an early diagnosis of Burnout Syndrome (BS) is difficult because of the subtle differences between mild exhaustion and BS. Once detected, the only solution is to cease professional activity; temporarily or permanently.<sup>3</sup> Throughout 1981, Maslach and Jackson defined this syndrome based on three dimensions: emotional exhaustion (EE), described as feelings of emotional, intellectual or physical fatigue; depersonalization (D), consisting of negative attitudes, responses and feelings to other people in the workplace; and personal accomplishment (PA), manifested in this case as dissatisfaction, low self-esteem and subjective feelings of failure.<sup>3</sup> In the year 1986, Maslach & Leiter<sup>4</sup> developed the Maslach Burnout Inventory (MBI), the global leading survey instrument to assess the three dimensions that take part in the diagnosis of BS.

This study expected to find prevalence of Burnout Syndrome (BS) among medical and nursing staff of the Medicine Service of Hospital

Dr. Gustavo Fricke in Viña del Mar, Chile. The study also looked for risk factors and protective factors involved in the development of BS in these cases.

## Method

Cross-sectional study comprised 52 doctors and nurses randomly selected from medical staff of the Medicine Service of Hospital Gustavo Fricke of Viña del Mar. The study was performed between May and June 2017. 14 nurses and 38 doctors were included after signing informed consent. We had the authorization of the chief of service. To find out the prevalence of BS among the population under study, the MBI was applied. MBI is a questionnaire consisting of 22 items exploring three dimensions to detect BS: Emotional Exhaustion (EE), Depersonalization (DP), and Personal Accomplishment (PA). The dimensions are presented in the form of Likert scales from 1 (never) to 5 (on a daily basis). High scores on the first two dimensions, plus low scores on the third, make up a BS diagnosis.<sup>2</sup> Additionally, a 6-item survey was administered. This survey was elaborated by the investigation team, with the objective of characterizing the population, considering data such as sex, family composition, profession, medical history, and mental health issues. Data were tabulated and analyzed through Microsoft Excel Stata 13 Software. For statistical analysis,

Student's T-test was carried out. We considered statistic significance a  $p < 0,05$ .

## Results

71.1% (n=37) of the participants of the sample were women. The median age was 37,8 years (23-66). 51.9% (n=27) of the total sample were single, 40.3% (n=21) were married, 3.8% (n=2) were divorced, 1.9% (n=1) was widowed, and another 1.9% (n=1) was unmarried but lived with a couple. Regarding family composition, 48% (n=25) had children; 36.5% (n=19) had 1 or 2 children, while 15.3% (n=8) had 3 or more. Regarding their professions, 73% (n=38) were doctors and 27% (n=14) were nurses. Regarding prevalence of chronic pathologies, including mental health problems, among the participants, 21.1% (n=11) presented chronic pathologies and 11.5% (n=6) presented mental disorders. 44.2% (n=23) of participants showed high levels of EE. 50% (n=26) of participants showed high levels of DP. Regarding PA, 3.8% (n=2) of participants had low scores in this scale. Mean scores were of 24 points for EE, 10 points for DP, and 32 points for PA. (Table 1) Regarding EE, scores among women were, on average, 5.8 points higher than men ( $P:0.0132$ ). Regarding DP, scores among men were, on average, 2.7 points higher than women ( $p:>0.05$ ). PA levels were on average, 2.1 points less in men, that is statistically significant ( $p:0.0422$ ). Regarding average scores of EE, DP and PA, there weren't differences between married and unmarried people ( $p>0.05$ ). There weren't significant differences when comparing participants with and without children either ( $p>0.05$ ). When comparing results among doctors and nurses, the latter showed slightly higher scores on the RP scale ( $p:>0.05$ ). When comparing healthy participants with those with clinical or mental health comorbidities, the latter had a slight tendency to exhibit higher levels of EE. ( $p:>0.05$ ).

**Table 1** Average scores (%) of the sample in MBI subscales

Subscale	Low	Moderate	High
Emotional exhaustion (EE)	15(28.8%)	14(27%)	23 (44.2%)
Depersonalization (DP)	4 (7.7%)	22 (42.3%)	26(50%)
Personal Accomplishment (PA)	2 (3.8%)	21(40.4%)	29 (55.8%)

MBI: Maslach Burnout Inventory 4

## Discussion

The study didn't evidence results of BS in the studied sample of medical and nursery personnel. Although 3.6% (n=2) of participants evidenced low levels of PA, none evidenced high levels of EE and DP, therefore not fulfilling the criteria to diagnose BS. However, it's important to notice the existence of medium to high levels of EE (71.2%) and DP (92.3%), which could be indicators of a risk of developing BS in the future. When comparing results with previously developed studies in Chile on other kinds of healthcare personnel,<sup>5,6</sup> this study showed higher levels of EE and DP among the studied

population, as well as higher levels of PA. BS as a whole wasn't found in any of the participants, unlike previous studies. Not finding BS on the studied sample – differing from other international studies – could be attributed to the fact that the Internal Medicine Service of the Gustavo Fricke Hospital is currently undergoing a process of generational change, receiving increasingly young medical personnel – including nurses – with less work experience. Considering that BS is a chronic adaptive disorder that has a prolonged, progressive, and continuous development that is directly related to the amount of time spent in work, there's a possibility that it still hasn't presented in younger medical personnel. Though there were no demonstrated association between BS and sociodemographic variables, it's important to note an increased vulnerability in women, who had higher levels of EE and DP in comparison to sampled men in this group of health workers. Unlike other studies, where having a family or being married were considered protective factors, in this study there weren't statistically significant differences associated to these variables.

## Conclusion

There were no findings of BS among doctors and nurses of the Internal Medicine Service of Hospital Gustavo Fricke, but moderate to high levels of EE and DP were found among this population, which might indicate development of BS in the near future. It may be of interest to develop new studies that continue to monitor possible cases of BS in different clinical services of the Hospital, considering the influence of this disorder on an occupational and personal scale.

## Acknowledgment

None.

## Conflict of interest

The authors declare that there is no Conflict of interest.

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