

# CARDIOVASCULAR RISK AND THE BURNOUT SYNDROME IN MEXICAN WORKERS.



Horacio Tovalín-Ahumada (1), Pedro Gil-Monte (2), Rubén Marroquín-Segura (1), Sara Unda-Rojas (3), Marlene Rodríguez-Martínez (1), Jorge Sandoval-Ocaña (3).

(1) Especialización en Salud en el Trabajo, FES Zaragoza, UNAM, (2) Departamento de Psicología Social, Facultad de Psicología, Universidad de Valencia, (3) Carrera de Psicología, FES Zaragoza, UNAM.

Correspondance author:  
[htoalin@gmail.com](mailto:htoalin@gmail.com)

# INTRODUCTION

- In Mexico, cardiovascular diseases (heart attacks, stroke and hypertension) accounted in 2007, by a 36.6% of total deaths,
  - 25.383 deaths in the 15 to 65 years old group.
- The prevalence of these diseases specifically for the working population is high
- The psychosocial risks factors would be important for their production and aggravation, and the study of this association is important to be explored.

# INTRODUCTION

- In the last decade, several studies of the Burnout syndrome (BO) in Mexican workers had identified an important prevalence 2-4% of this condition.
- Many negative outcomes related to BO has been reported:
  - Low job performance, absenteeism,
  - Related diseases such as; mental health problems (depression, etc.) and cardiovascular diseases (coronary heart disease and circulatory diseases).

# OBJECTIVE

- ◉ In this study, we analyzed:

The association between the BO syndrome and the prevalence of cardiovascular diseases and the CVD risk in a group of Mexican workers

# METHODS

- ◉ This is a cross sectional study of 1,368 workers, 842 women and 526 men, from 4 different occupations, middle school teachers, health services workers, legal services workers and firefighters.
  - All workers were informed about the study signed in an informed consent letter.
- ◉ Instruments:
  - the Evaluation of Burnout Syndrome Questionnaire (CESQT) was used (Gil-Monte, 2005) to identify the BO,
  - the Job Content Questionnaire (Karasek, 1991)
  - a Health Conditions questionnaire to obtain demographic and health history information.
  - Their blood pressure, weight, height, hip and waist circumference were measured and accepted a blood sample was drained to analyze their serum lipids levels.

# METHODS

- The CESQT questionnaire defines four dimensions of BO, exhaustion, indolence-cynicism, job illusions and guilt. In this study the BO total score that includes the four dimensions scores was use, and workers were classified as severe-diseased (P90), high (P66), moderate (P33) and low burnout.
  - As this study, purpose is looking for the association among BO and some chronic conditions, an interaction index including burnout score and the seniority in the position years was calculated.
- The Framingham equation was use to estimate the workers' risk to develop a cardiovascular disease during the next 10 years.
- The data was analyzed using the SPSS statistical package (Ver.15). The Chi2 and Kruskal-Wallis test (KW) were used.

# RESULTS

- The severe and high BO level subgroups had a significantly higher prevalence of:
  - perceived bad health (Chi2,  $p.\leq 0.000$ ),
  - a high waist/hip index (Chi2,  $p.\leq 0.02$ ),
  - elevated total cholesterol (Chi2,  $p.\leq 0.05$ ) and
  - High LDL cholesterol (Chi2,  $p.\leq 0.07$ ).

# RESULTS

- A trend was also observed among the severe and high BO subgroups with higher levels of:
  - High diastolic pressure (KW,  $p. \leq 0.000$ ),
  - High systolic pressure (KW,  $p. \leq 0.000$ ),
  - Higher Body Mass Index (KW,  $p. \leq 0.002$ ) and
  - Triglycerides (KW,  $p. \leq 0.002$ ).



# RESULTS

- The predicted risk of developing a cardiovascular disease in the next 10 years has a trend, higher for the severe BO group than for the low-level group.

Table 1. Risk of developing a cardiovascular disease in the next 10yr. by level of exposure to the Burnout syndrome

	Level of exposure to Burnout				Total
	Severe	High	Moderate	Low	
N	58	174	174	164	520
CVD risk/10 yr. Media	7.52**	6.56	6.56	4.55	6.22
DE.	8.72	8.26	8.26	7.12	8.02

\* Framingham equation, \*\*KW,  $p \leq 0.000$

# CONCLUSIONS

- This study shows a relationship among the level of exposure to BO and different cardiovascular diseases and risk factors.
- The increased health risk of developing a cardiovascular disease due to the presence of BO is relevant
- The presence of BO in the workers brings not only effects on their performance, care attention or satisfaction; it also has important cardiovascular effects in the affected workers.

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¿Questions?

**Thanks!**

**Enjoy Cancún!**