

Hernández, Tirso J.; Sánchez, Germán; Hernández, José F.; Vite, Edgar

**Article**

## Prevalence of burnout syndrome in workers of institution of the health sector

The International Journal of Management Science and Information Technology (IJMSIT)

**Provided in Cooperation with:**

North American Institute of Science and Information Technology (NAISIT), Toronto

*Suggested Citation:* Hernández, Tirso J.; Sánchez, Germán; Hernández, José F.; Vite, Edgar (2014) : Prevalence of burnout syndrome in workers of institution of the health sector, The International Journal of Management Science and Information Technology (IJMSIT), ISSN 1923-0273, NAISIT Publishers, Toronto, Iss. 12, pp. 31-49

This Version is available at:

<https://hdl.handle.net/10419/178772>

**Standard-Nutzungsbedingungen:**

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

**Terms of use:**

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

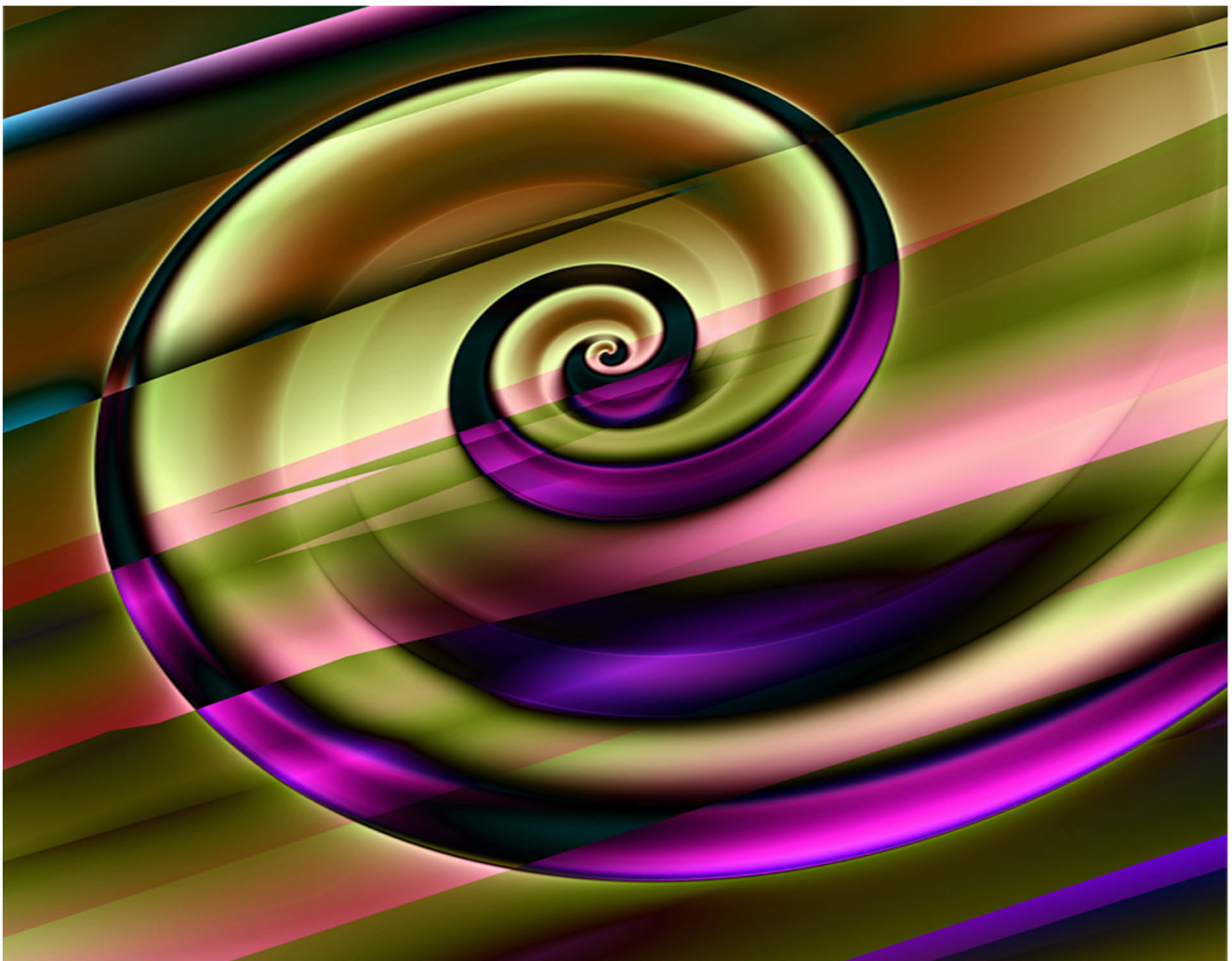
*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*

An official publication of The North American  
Institute of Science and Information Technology

ISSN:1923-0265

**INTERNATIONAL JOURNAL OF**

# **Management Science and Information Technology**



NAISIT  
PUBLISHERS **III**

[www.naisit.org](http://www.naisit.org)

# **The International Journal of Management Science and Information Technology (IJMSIT)**

NAISIT Publishers

Editor in Chief

J. J. Ferreira, University of Beira Interior, Portugal, Email: jjmf@ubi.pt

Associate Editors

Editor-in-Chief: João J. M. Ferreira, University of Beira interior, Portugal

Main Editors:

Fernando A. F. Ferreira, University Institute of Lisbon, Portugal and University of Memphis, USA

José M. Merigó Lindahl, University of Barcelona, Spain

Assistant Editors:

Cristina Fernandes, Reseacher at NECE -Research Unit in Business Sciences (UBI) and Portucalense University,  
Portugal

Jess Co, University of Southern Queensland, Australia

Marjan S. Jalali, University Institute of Lisbon, Portugal

Editorial Advisory Board:

Adebimpe Lincoln, Cardiff School of Management, UK

Aharon Tziner, Netanya Academic College, Israel

Alan D. Smith, Robert Morris University, Pennsylvania, USA

Ana Maria G. Lafuente, University of Barcelona, Spain

Anastasia Mariussen, Oslo School of Management, Norway

Christian Serarols i Tarrés, Universitat Autònoma de Barcelona, Spain

Cindy Millman, Business School -Birmingham City university, UK

Cristina R. Popescu Gh, University of Bucharest, Romania

Dessy Irawati, Newcastle University Business School, UK

Domingo Ribeiro, University of Valencia, Spain

Elias G. Carayannis, Schools of Business, USA

Emanuel Oliveira, Michigan Technological University, USA

Francisco Liñán, University of Seville, Spain

Harry Matlay, Birmingham City University, UK

Helen Lawton Smith, Birkbeck, University of London, UK

Irina Purcarea, The Bucharest University of Economic Studies, Romania

Jason Choi, The Hong Kong Polytechnic University, HK

Jose Vila, University of Valencia, Spain

Kiril Todorov, University of National and World Economy, Bulgaria

Louis Jacques Fillion, HEC Montréal, Canada

Luca Landoli, University of Naples Federico II, Italy

Luiz Ojima Sakuda, Researcher at Universidade de São Paulo, Brazil

Mário L. Raposo, University of Beira Interior, Portugal

Marta Peris-Ortiz, Universitat Politècnica de València, Spain

Michele Akoorie, The University of Waikato, New Zealand

Pierre-André Julien, Université du Québec à Trois-Rivières, Canada

Radwan Karabsheh, The Hashemite University, Jordan

Richard Mhlanga, National University of Science and Technology, Zimbabwe

Rodrigo Bandeira-de-Mello, Fundação Getulio Vargas – Brazil

Roel Rutten, Tilberg University - The Netherlands

Rosa Cruz, Instituto Superior de Ciências Económicas e Empresariais, Cabo Verde  
Roy Thurik, Erasmus University Rotterdam, The Netherlands  
Sudhir K. Jain, Indian Institute of Technology Delhi, India  
Susana G. Azevedo, University of Beira Interior, Portugal  
Svend Hollensen, Copenhagen Business University, Denmark  
Walter Frisch, University of Vienna, Austria  
Zinta S. Byrne, Colorado State University, USA

#### Editorial Review Board

Adem Ögüt, Selçuk University Turkey, Turkey  
Alexander B. Sideridis, Agricultural University of Athens, Greece  
Alexei Sharpanskykh, VU University Amsterdam, The Netherlands  
Ali Kara, Pennsylvania State University -York, York, USA  
Angilberto Freitas, Universidade Grande Rio, Brazil  
Arminda do Paço, University of Beira Interior, Portugal  
Arto Ojala, University of Jyväskylä, Finland  
Carla Marques, University of Trás-os-Montes e Alto Douro, Portugal  
Cem Tanova, Çukurova University, Turkey  
Cristiano Tolfo, Universidade Federal de Santa Catarina, Brazil  
Cristina S. Estevão, Polytechnic Institute of Castelo Branco, Portugal  
Dario Miocevic, University of Split, Croatia  
Davood Askarany, The University of Auckland Business School, New Zealand  
Debra Revere, University of Washington, USA  
Denise Kolesar Gormley, University of Cincinnati, Ohio, USA  
Dickson K.W. Chiu, Hong Kong University of Science and Technology, Hong Kong  
Domènec Melé, University of Navarra, Spain  
Emerson Mainardes, FUCAPE Business School, Brazil  
Eric E. Otenyo, Northern Arizona University, USA  
George W. Watson, Southern Illinois University, USA  
Gilnei Luiz de Moura, Universidade Federal de Santa Maria, Brazil  
Jian An Zhong, Department of Psychology, Zhejiang University, China  
Joana Carneiro Pinto, Faculty of Human Sciences, Portuguese Catholic University, Lisbon, Portugal  
Joaquín Alegre, University of Valencia, Spain  
Joel Thierry Rakotobe, Anisfield School of Business, New Jersey, USA  
Jonathan Matusitz, University of Central Florida, Sanford, FL, USA  
Kailash B. L. Srivastava, Indian Institute of Technology Kharagpur, India  
Karin Sanders, University of Twente, The Netherlands  
Klaus G. Troitzsch, University of Koblenz-Landau, Germany  
Kuiran Shi, Nanjing University of Technology, Nanjing, China  
Liliana da Costa Faria, ISLA, Portugal  
Luiz Fernando Capretz, University of Western Ontario, Canada  
Lynn Godkin, College of Business, USA  
Maggie Chunhui Liu, University of Winnipeg, Canada  
Marcel Ausloos, University of Liège, Belgium  
Marge Benham-Hutchins, Texas Woman's University, Denton, Texas, USA  
María Nieves Pérez-Aróstegui, University of Granada, Spain

Maria Rosita Cagnina, University of Udine, Italy  
Mayumi Tabata, National Dong Hwa University, Taiwan  
Micaela Pinho, Portucalense University and Lusíada University, Portugal  
Paolo Renna, University of Basilicata, Italy  
Paulo Rupino Cunha, University of Coimbra, Portugal  
Peter Loos, Saarland University, Germany  
Pilar Piñero García, F. de Economía e Administración de Empresas de Vigo, Spain  
Popescu N. Gheorghe, Bucharest University of Economic Studies, Bucharest, Romania  
Popescu Veronica Adriana, The Commercial Academy of Satu-Mare and The Bucharest University of Economic  
Studies, Bucharest, Romania  
Ramanjeet Singh, Institute of Management and Technology, India  
Ricardo Morais, Catholic University of Portugal  
Ruben Fernández Ortiz, University of Rioja, Spain  
Ruppa K. Thulasiram, University of Manitoba, Canada  
Soo Kim, Montclair State University, Montclair, NJ, USA  
Wen-Bin Chiou, National Sun Yat-Sem University, Taiwan  
Willaim Lawless, Paine College, Augusta, GA, USA  
Winston T.H. Koh, Singapore Management University, Singapore

## **Table of Contents**

This is one paper of  
The International Journal of Management Science and  
Information Technology (IJMSIT)  
Special Issue: 2012 AEDEM Annual Meeting

## **Prevalence of burnout syndrome in workers of institution of the health sector**

**Tirso J., Hernández,**

Institute of Administrative Sciences University Autonomy of Hidalgo State  
México.

Email: [thernan@uaeh.edu.mx](mailto:thernan@uaeh.edu.mx),

**Germán, Sánchez,**

Institute of Administrative Sciences University Autonomy of Hidalgo State  
México.

Email [germansm@hotmail.com](mailto:germansm@hotmail.com)

**José F., Hernández**

Department of Business, University Technological Tula Tepeji  
México.

Email: [jhernandez@uttt.edu.mx](mailto:jhernandez@uttt.edu.mx),

**Edgar, Vite**

Institute of Administrative Sciences University Autonomy of Hidalgo State  
México.

Email: [edgar\\_vite@hotmail.com](mailto:edgar_vite@hotmail.com)

### **Abstract:**

The burnout syndrome was identified by Freudenberger in 1974, as a condition of fatigue or frustration that takes place for the dedication to a reason; it forms of life or relation that does not produce the awaited effort. The Burnout is characterized by emotional weariness, depersonalization and decrease or loss of the feeling of personal accomplishment. This problem derived from the stress that appears frequently in health professionals and there is propitiated by diverse organizational factors, which prevents the development of a labor harmonic environment and a suitable communication in the different hierarchic levels. The aim of this study consisted of determining the degree of prevalence of the burnout syndrome in the personnel of nursery and social work of a Public Health Hospital, as well as the determination of some predictive factors. The inventory was in use for measuring the burnout syndrome of Maslach which was applied to 227 nurses and 25 social workers. The principal results indicate a positive and significant correlation with the schedule of labors and with the number of patients who attend. Likewise, significant associations were identified by variables since it is the age and the marital status of the workers, which showed to have a negative correlation with regard to the dimensions of the syndrome of burnout. Finally there exists the need to realize interventions directed to reducing and eliminating the presence of the burnout syndrome in this type of personnel.

**Key Words:** Syndrome of burnout, Emotional Depletion, Depersonalization, Low Personal Fulfillment.



## **Introduction**

In the literature there are no agreements in a definition of the burnout syndrome. Starrin, Larsson and Styborn (1996) indicate that everybody knows what is it, but many authors can ignore the correct definition. People that suffer this syndrome consider themselves unsatisfied and they do not consider this like a problem in their jobs.

In the labor arena, work is not only for economic security, it could produce pleasure, satisfaction and health benefits. Work is a generator of stress and could provoke psychological, physic and psychosomatic problems. The labor chronic stress is associated to the work overcharge, the low appreciation of capabilities and other occupational factors that produce labor pressure and conflict. It is exactly the field of the labor psychology where recognize the burnout syndrome, as a labor fatigue or professional exhaustion with the characteristics of status of intense fatigue, low motivation and irritability, not just in the labor field, even in the personal and familiar arena, the cause is problems at work (Vinaccia y Alvaran, 2004).

In many organizations we can find the syndrome, but especially in which the worker have direct and permanent contact with people who ask for their attention, for example, teachers at school or universities, nurses and doctors at hospitals, policemen who work in organisms of public security.

The pioneers in this topic are Cristina Maslach y Susana Jackson. In the 80's these authors focused their attention in professionals and people in public service agencies. In that kind of institutions, professional and workers define their believes, expectative and opinions beside those of the institutions. The achievements and goals of the workers depend in their superiors but if there are differences between their targets on both sides it could generate feelings of failure in the worker, and the beginning of burnout syndrome (Densten, 2005).

The purpose of this research is to identify the prevalence of the burnout syndrome and the associated factors with the nursery and social work personnel of a public hospital. We designed a transversal research *ex-post facto*. The theoretical framework, the hypothesis, the methodology, the empirical results obtained and the discussion of the results of previous research are going to be ordered in this work.

## **The burnout syndrome**

The first person who described this syndrome was Freudenberg in 1974, he describe the syndrome as a psychiatric pathology in some professionals that works in institutions where the contact with people is frequent, and it is constituted by a group of physic biologic and psychosocial symptoms that are present in the labor activities as a result of an excessive demand of energy.

There are many definitions of the syndrome. Longas and Fernandez (2003) wrote that this phenomenon is associated to a syndrome with chronic interpersonal distress in the labor field. Other characteristic is the feeling of reduced self-efficiency, fatigue, depersonalization, associated to chronic situations of excessive demands in the labor arena (Kahill, 1988). According to Cherniss (1980) the BS is a process in which the attitudes and the behavior of the

worker or professional change to a negative form in response to the tension at work. Is exactly this last author who describes the SB in three phases: 1) unbalances between the resources and the demands; 2) develop of the tension, the fatigue and the emotional fatigue; 3) changes in the attitudes and behavior of the worker to other people.

Para Maslach and Jackson (1981) the SB is the emotional fatigue, depersonalization and low personal fulfillment that can occur frequently among the people who works in areas with direct contact with other people. In the definition of the authors we can see three parts of the burnout syndrome. The first is the emotional fatigue, the characteristic is loss of energy, and emotional resources. The second factor is the depersonalization, or attitudes and negative feelings towards other people. The last part is the low personal fulfillment, where the workers had great frustration and dissatisfaction towards their tasks, with negative opinion about their own labor progress (Wright, 1997). The parts of SB from Maslach and Jackson (1986) permit us a better understanding of the BS and the consequences in the organizations.

Brodsky (1980) describes four phases in a person who is affected with this syndrome:

1. Enthusiasm, this stage is characterized with several aspirations, great energy, and they have no fear.
2. Standstill, it begins when the original goals were not accomplished, and frustration appears as well.
3. Frustration, the emotional problems start with the people, also physical and in the behavior. Frustration is the central nucleus of the syndrome.
4. Apathy, it constitutes the defense mechanism against frustration.

Some authors support that those workers that have more contact with persons, like physician and nurses at hospitals, are easy target for Burnout syndrome. Thus because the excessive work that generate many physical, emotional and behavior symptoms in interpersonal relations and a low performance at job. In the same order, one of the associated variables with burnout syndrome is the stress. In many cases, the presence of burnout syndrome is associated to the labor stress. The stress at work, is a psycho – physiological process that starts with a difficult situation at job. This produces a significant unbalance between the orders and the resources to do things. Selye (1956) make a difference in two stress forms. At first it generates positive activation that produces the better potential of each person, and he calls eutrés. The second generates negative activation and it is called distress, this is the result of over charge with tasks in work, and this is reflected in corporal symptoms, feelings and thoughts that generate discontent.

### **Explicative models for burnout syndrome**

The main explicative models of burnout syndrome consider a group of variables associated with the dimensions of this syndrome, this permit study in different aspects, and elaborate different hypothesis. From these perspectives different models were developed for interpretation.

1. Models designed on the cognitive learning theory of myself, according to this theory there are a group of association processes trough the symbolic representations are modified in correct actions. In this group we consider these models: a) the social competence model of Harrison (1983); b) the model of Pine (1993); c) Chemiss Model (1993); and d) the self control from Thompson, Page and Cooper (1993).

2. Models based in the social interchange. These models are based in the security theory and the conservation of resources theory. They propose that burnout syndrome have his etiology in the perceptions of inequity and workers gain, as a result of the process of social comparison that were observed in the interpersonal relations. When workers feel that they work harder than their salary and they are not capable to solve problems, so they develop feelings and express characteristics of the burnout syndrome. The models in these focus are: a) comparison social model from Buunk and Schaufeli (1993) and b) the model of conservation of resources of Hobfoll and Fredy (1993).
3. Models designed in the organization theory. In this group we include el model of burnout syndrome as a answer to the labor stress, and emphasize in the importance of the stress agents, in the context of organization (organizational structure, organizational weather, role dysfunctions, social support received, etcetera), and strategies used to face the burnout syndrome. The specific models of this group are: a) model of Golembiewski, Munzenrider and carter (1983), b) cox, kuk and liter (1993), and c) Winnubst (1993).
4. Models of the Structural Theory. There models have his base in the personal, interpersonal and organizational backgrounds, to explain the etiology of BS in an integral view. Their characteristics are based in transactional models, because explain how the stress is consequence of an unbalance in the perception between the requirements at job and the answer capability of the person. This is a development of Gil-Monte y Peiró (1997)

### **Measurement models of burnout syndrome**

In literature we could find measurement instruments of BS, in the table number one we show a series of measurement instruments of BS developed since 1990 to our days. It is important to consider that some of those instruments have been applied in research all over the world. One of those is called MBI developed by Maslach and Jackson (1981). The MBI is an instrument that measures the burnout syndrome in a questionnaire that considers variables such as emotional depletion, un personalization and personal accomplishment. The MBI have three versions nowadays. Maslach, Jackson and leiter (1996).

- The MBI-Human Services Survey (MBIHSS). This instrument is oriented to the health professionals and it is derivation of the classical version of MBI (Maslach and Jackson, 1986). This instrument is organized in three scales that measure the frequency when professional people notice a reduction in personal fulfillment at work (tendency to evaluate negatively, specifically related with the ability to do their tasks and in the relation with people who serve), Emotional depletion (inability to give more of themselves in the emotional and affective arena) and Depersonalization ( generation of feelings and cynical attitudes and negatives towards the people who receive the services).

Table No. 1. Measurement instruments of Burnout syndrome

Measurement instrument	Authors
Staff Burnout Scale	Jones (1980)
Indicadores del Burnout	Gillespie (1980)
Emener – Luck Burnout Scale	Emener y Luck (1980)
Tedium Measure	Pines, Aronson y Kafry (1981)
<b>Maslach Burnout Inventory</b>	<b>Maslach y Jackson (1981)</b>
Burnout Scale	Kremer y Hofman (1985)
Teacher Burnout Scale	Seidman y Zager (1986)
Energy Depleiton Index	Garden (1987)
Mattews Burnout Scale for Emplpyees	Mattews (1990)
Efectos Psíquicos del Burnout	Carcía Izquierdo (1990)
Escala de Variables Predictoras del Burnout	Aveni y Albani (1992)
Cuestionario del Burnout del Profesorado	Moreno y Oliver (1993)
Holland Burnout Assessment Survey	Holland y Michael (1993)
Rome Burnout Inventory	Venturi, Dell'Erba y Rizzo (1994)
Escala de Burnout de Directores de Colegios	Friedman (1995)
Escala Mexicana de Desgaste Ocupacional	Uribe-Prado (2007)

Source: Garcés de los Fayos, López Soler and García Montalvo 1999.

- The MBI Educators Survey (MBI-ES). Is the version of MBIHSS for professionals of the education (Schwab, 1986). This version change the word patient for student, produce the same factorial structure of the MBIHSS leaving the same scales.
- The MBI-General Survey (MBIGS). Created by Schaufeli, Leiter, Maslach and Jackson (1996), this new version of MBI show a generic character, that it is not exclusive for professionals that work with people (leiter and Schaufeli, (1996). It leave the tridimensional structure of MBI, this version just has 16 items, and the dimensions are called professional efficiency (6 items), depletion (5 items) and cynic (5 items).

To verify the construction of MBI some authors have made factorial analysis similar to the generated by other authors based in orthogonal rotation (v.g., Fimian and Blanton, 1987; Belcastro, Gold and Hays, 1983; Gold, Bachelor and Michael, 1989; Söderfeldt, Söderfeldt, Warg and Ohlson, 1996) or the oblique rotation(v.g., Abu-Hilal, 1995; Gold, Bachelor and Michael, 1989).

### **Prevalence of burnout syndrome in institutions of health sector**

In hospitals day by day is frequent that almost everybody who give a public service where is continuous the contact with persons demanding attention, show a progressive loss of energy, or sometimes deflection, the demotivation towards the work and suffer depression and anxiety symptoms, is called burnout syndrome. This labor problematic

is due repressed stress, it generates problems that begin in the labor arena and it affects the other areas in the workers life (Reyna, Gutiérrez y Herrera, 2004).

Burnout syndrome is common in health professionals and in all people that works in service organization and maintain constant direct contact with people. This syndrome found his bases on the related factors. That is the case of the overcharge of tasks, injustices, when they have no reward about their job, conflicts, loss of cordiality at work and loss of control in the labor tasks. The principles of the administration of hospitals, suggest that it must to be a correct work charge that agree with productivity indicators and quality. The maintains of justice, acknowledgement oriented to the indicated tasks, incentives and rewards, combined with a good labor environment, will permit the communication among all the levels and let the correct develop between organization – worker (Palmer, Gómez, Cabrera-Pivaral and Prince 2005).

Nowadays in Mexico, the information of the characteristics of health personnel and the labor conditions, are studied in most level than in other countries that begin the studies two decades ago, in order to deal with the labor stress. In clinical specialties hospital, take place a study with 236 nurses in order to detect the burnout syndrome (Cabrera, López, Salinas, Ochoa, Marin and Haro, 2005). They found emotional deflection in 32 %, dehumanization in 62%, loss of interest en job in 50% and general depletion in 50%. All these variables were associated with labor environment, furthermore, in this research we observe that the results belongs to organizational factors, thus because the health professionals work in institutions that respond to professionalized burocracy scheme. In Fray Bernardino Alvarez psychiatric hospital located in Mexico City, was an study with 20 doctors studying the first terms of psychiatry (Reyna, Gutierrez and Herrera, 2004), identifying 18.7% suffered moderated emotional depletion, while 4.8% suffered depersonalization, and 31.36% show low personal fulfillment.

In general there are not many researches about burnout syndrome in some hospitals in Mexico, especially in doctors and nurses personnel. In the opinion of Palmer, Gómez, Cabrera-Pivaral and Prince, 2005 it is due to the unawareness and interest of the health organization leaders. Public hospitals induce coordination problems among their workers, suffering the incompetence of the professional, the difficulties of action freedom, and the dysfunctional responses of the directors to the organizational problems (Cabrera, López, Salinas, Ochoa, Marin, and Haro, 2005). This entire staff produces a waste in the performance of the role y the social environment (Gil-monte, Peiró and Valcarcel, 1998). The normativity and the institutional policy in these organizations contribute in a negative sense in the professional development, producing physical and mental waste (González, Benitez and Fernandez, 2007).

Nevertheless, in public and private hospitals, we can found BS generating loss of mental health in the worker. In the same way physical symptoms, as an answer to the chronic stress in the labor environment, it is integrated by attitudes and negative feelings towards the people at work and professional role. In the same hand the experience of emotional depletion is maximized with the direct contact with people in institutions that have necessity or

dependency. In the opinion of Maslach and Jackson (1996), doctors in a range of 20% and nurses in a 35%. When Burnout Syndrome is high in an institution, we can find important effects in the labor performance, so they generate labor conflict and mental instability even it could be possible that people commit the suicide (Maslach, 1982). That is why is important that researchers continue the studies about the syndrome to contribute identifying factors that generate stress and burnout syndrome in the labor areas to define strategies to prevent and move to solve problems at work, with the results of the research will contribute the performance in the work and better work environment.

In this order, we research in a public health institution. The questions in the research were: Which is the prevalence of Burnout syndrome in nursery and social work staff? And, Which are the predictor associated factors to the presence of burnout syndrome? This research was made with nursery and social work of a public hospital and was designed to identify the prevalence of burnout syndrome, and the associated factors in the nursery and social work personnel. The intention of the research is generate suggestions and recommendations to eradicate burnout syndrome in a public hospital.

**The hypothesis on test in this work is:**

H1: there is burnout syndrome presence in nursery and social work personnel in a public hospital. We estimate that the most important dimension of burnout syndrome is the depersonalization.

H2: The significant factors related with burnout syndrome is the nursery and social work personnel of the public hospital are the gender, the age, the seniority, number of daily patients, the labor hours, main motivation at work and main demotivate at work.

**Methodology****Participants**

The measurement instruments were applied to 212 nurses, 15 directors and 22 social workers and 3 directors, in conclusion 227 nurses and 25 social workers in the public hospital, answer the questionnaire. The main inclusion criteria were base employees with seniority no less than three years, in morning, evening and night shift, in any area of the hospital.

The questionnaire was answered by 96.4 % women, and 3.6 men. 44.8% are in 36 years old and more, while 25.4% had between 24 and 30 years old, this means the younger personnel. The 42.5% are marriage, the 33.3% single, 10.7% divorced, the 9.5% cohabitated, and 4% are widow. The 44.8% have academic level as technician, the 22.6% had bachelor degree, the 12.3% had studies like auxiliary, the 10.8% had post technic courses, the 2.8 had master degree, the 2.4% had specialty, the 1.2% had coursed courses of two months as an assistant, and just the 0.4% had PhD. The 43.7% had one or two sons, 32.5% has no children, the 22.6% had three or four sons or daughters, and 1.2% had five or more children.

The 32.5% work in a morning shift, 31% in night shift and 19% in morning and night shift, and 17.5% work on evenings shift. The 92.9% of the people are base employees and 7.1% by contract. In pediatrics areas there are 10.3% of the staff, while the 9.5% in internal medicine, 9.1% in surgery and urgency. The 8.7% in social work and 7.5% children intensive care unit, and the other personnel in other areas of the hospital. The 49.2% assist between 6 and 10 patients daily, the 21.8% from 11 and 15 patients, the 18.7% more than 15 patients in their labor shift, and 10.3% assist from 1 to 5 patients; the 27.4% have a seniority from 1 to 5 years, the 23.8% from 6 to 10 years, 20.6% from 11 to 15 years and the 13.5% from 16 to 20 years.

### **Variables**

In this research the dependent variable was the burnout syndrome, and this is compound from 3 dimensions: emotional depletion, depersonalization, and low personal fulfillment. Maslach and Jackson (1996) and Maslach (1979 and 1999) define burnout syndrome as the response of chronic labor stress, integrated by attitudes and negative feelings towards people in the job and towards the own professional role, and the experience mental fatigue. The dimensions of this syndrome in the opinion of the authors in this paragraph are:

- Emotional depletion. Is the diminution or loss of the emotional resources to understand the situation of other people with different emotions and feelings that can compromise the labor environment. The worker develop other feelings in his physic and emotional fatigue and the worker cannot give more from himself, feeling frustration.
- Depersonalization. Disclose a change based in the develop of attitudes and negative responses, as insensitivity and cynicism towards the patients and relatives in the hospital, the increment of the irritability towards the labor motivation. This isolation could generate labor absenteeism, in meetings, resistance to face other people or face the people, maintaining an cold, and arrogant emotional attitude. These hostile behaviors are qualified by the costumers like an dehumanizing from the worker.
- Low personal fulfillment. It supposes negative tendencies responses in the evaluation of his own work, low self-confidence, avoid of interpersonal and professional relations, low productivity and incapability to hold the work pressure. There are progressive labor deterioration and loss of personal fulfillment. The negative self-evaluation, from the worker affect the daily tasks and the relation with the people.

The independent variables in this research were:

Is the gender, the age, the seniority, number of daily patients, the labor hours, main motivation at work and main demotivate at work.

### **Instrument**

To measure the burnout syndrome we use the MBI, this have three views: 1) emotional depletion (AE), 2) depersonalization (D) y 3) reduced low personal fulfillment (RPB) (Maslach and Jackson 1996; Maslach 1979, 1999). Once apply and obtained the results, we can talk of professionals with BS, when the two first dimensions (AE and D) give us highest marks, while the third dimension (RPB) is in a low level (Maslach and Jackson 1986). El



MBI have 22 questions in affirmative form about the feelings and attitudes of the professional in their jobs and towards the patients, this instrument has a trustworthiness of 0.9. To measure the independent variables a questionnaire was designed to be answered by the people. The full measurement instrument applied has 32 items.

**Procedure**

It was a sampling by convenience looking to join the 100% of the target population. We did a census of nursery and social workers personnel of the public hospital, with authorization of the research and ethic department. The confidentiality was an important matter for us. The questionnaire had two parts, the first was related with demographic variables (gender, age, civil status, education, and number of children), labor aspects (labor shift, number of patients in average daily, seniority), and variables related with work: main motivation factor at work, and discourage factors at job. The second part includes items from Maslach to measure BS in Spanish version. This questionnaire had 22 items designed to evaluate the emotional fatigue in 9 items, depersonalization with 5 items and personal fulfillment in 8 items.

**Statistical analysis**

To proof the hypothesis we use descriptive statistical analysis and bivariate statistical analysis, we use analysis of variance with the F proof and difference of means with the proof T student. For this application we use the statistical software SPSS 15.0 version.

**Results**

In the table number 2, the highest mean scoring was obtained in the fatigue emotional dimension (mean = 2.19) comparing with the scoring of the depersonalization dimension (mean = 1.22). In contrast, a high scoring in low personal fulfillment (mean =4.49).

Table No. 2 “Mean, median, mode y standar deviation of the dimensions of burnout síndrome of the nursery and social work personnel”

Descriptive statistics	Dimensions of burnout syndrome		
	Emotional fatigue	Depersonalization	Low personal fulfilment
Mean	2.19	1.22	4.49
Median	2.00	1.00	4.63
Mode	2.67	0.00	4.63
Standar deviation	1.31	1.12	1.01

Source: compiled by autor with data obtained in this research.

In the table number 3 was shown the level of the BS indentified in the nursery and social work personnel, and the number of cases. In order with the measurement scale of Maslach the average of emotional fatigue is 36.9 (high



level), in a total of 114 cases, equivalent to 45.2% of the total of the sample; 21.9 (medium level) we found 82 cases equivalent to 32.5%, and 9.6 (low level) for 56 cases equivalent to 22.2%.

For the dimension of the depersonalization we obtained a scoring of 17.7 (high level) in 27 cases (10.7% of the sample); 10.6 (medium level) in 50 cases and a value of 3 points (low level) in 179 cases, corresponding to the 19.8 and 69.4 from the total respectively. For the low personal fulfillment dimension we obtained a scoring of 23.8 (high level) in 56 cases, equivalent to the 22.2% of the total of the sample; 32.7 points (medium level) in 62 cases and 41.9 points (low level) in 134 cases, corresponding to 24.6% and 53.2% from the total analyzed respectively.

Tabla No. 3 “scoring of burnout síndrome en nursery and social work personnel in the public hospital: workers and directives”

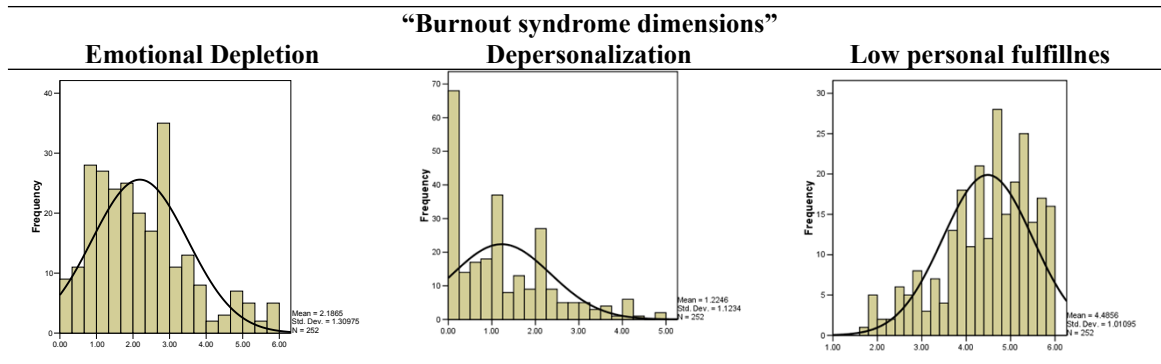
Indentification level	Emotional depletion			Deper-sonalization			Low personal fulfilment		
	scoring	n	%	scoring	n	%	scoring	n	%
Alto	36.9	114	45.2	17.7	27	10.7	23.8	56	22.2
Medio	21.9	82	32.5	10.6	50	19.8	33.7	62	24.6
Bajo	9.6	56	22.2	3	176	69.4	41.9	134	53.2
Total		252	100.0%		252	100.0%		252	100.0%

Source: compiled by author with data obtained in this research.

In the tables 3 and 4, we estimate that there are not enough elements in order to proof the hypothesis 1, thus because the depersonalization dimension had means scorings lower than emotional fatigue. Nevertheless, it is important analyze with which independent variables is associated the depersonalization in order to indentify more empirical evidences in relation of the prevalence. In the table 4, the dimension of BS in the nursery and social work personnel, had a performance like the normal curve just for the emotional fatigue and low personal fulfillment dimensions. In the case of emotional depletion, the tendency of low scoring is present in almost all the people. In contrast in the dimension of low personal fulfillment, an important part of the sample is located in the central parte and right of the normal curve determinate by high scoring and medium high.

The dimension of depersonalization shown more number of cases in the left part of the normal curve, with close values to 0, and in contrast shown less number of cases in high scorings in the right hand of the curve it is normal.

Table Number 4 “graphic description of the dimension of BS in nursery and social work department in a public hospital: directives and workers”



Source: compiled by author with data obtained in this research.

**Predictor factors of burnout syndrome in the nursery and social work personnel.**

To demonstrate the second hypothesis, we apply different bivariated analysis among the BS dimensions and the independent variables obtaining the next results.

In the dimension of emotional fatigue we identify significant differences between the feminine and masculine personnel (table number 5). The highest values in this dimension correspond to the women (mean = 2.21, p= 0.043). In the dimensions of depersonalization en low personal fulfillment we did not identify significant differences between men and women.

Table No. 5 “mean scoring of burnout syndrome by gender”

<b>Diferencia de medias de las dimensiones del MBI por genero</b>				
<b>MBI dimensions/Gender</b>	<b>Mean</b>	<b>n</b>	<b>t-Student</b>	<b>p</b>
Emotional fatigue			2.031	0.043
• Feminine	2.2186	243		
• Masculine	1.3210	9		
Depersonalization			0.248	0.805
• Feminine	1.2280	243		
• Masculine	1.1333	9		
Low personal fulfillment			-0.756	0.450
• Feminine	4.4763	243		
• Masculine	4.7361	9		

Source: compiled by author with data obtained in this research.

In age range, we identify important differences in the statistical arena with the depersonalization dimensions and low personal fulfillment. In the first the highest average correspond to the personnel that have between 24 and 30 years old (mean = 1.70; p = 0.000) and in personnel of 31 and 35 years old (mean = 1.44; p = 0.000).

In order to the low personal fulfillment dimension, the scoring correspond to the personnel about 36 or more years old (mean =4.68; P = 0.05), in contrast the lowest medium scoring in this dimension correspond to the personnel between 18 to35 years old, according to the table number 6.

Table number 6 “ medium scoring of burnout syndrome bye age”

<b>medium scoring of MBI by age range (Analysis of the variance)</b>				
<b>Dimensions of MBI/Género</b>	<b>Mean</b>	<b>n</b>	<b>Proof F</b>	<b>p</b>
Emotional fatigue			2.171	0.92
• from 18 to 23 years old	1.99	25		
• 24 a 30 years old	2.45	64		
• from 31 to 35 years old	2.36	50		
• from 36 and further	1.99	113		
Despersonalización			9.237	0.00
• from 18 to 23 years old	1.20	25		
• 24 to 30 years old	1.70	64		
• from 31 to 35 years old	1.44	50		
• from 36 and further	0.86	113		
Realización personal baja			2.580	0.054
• from 18 to 23 years old	4.30	25		
• 24 a 30 years old	4.33	64		
• from 31 a 35 years old	4.32	50		
• from 36 and further	4.68	113		

Source: compiled by author with data obtained in this research.

According with table number 7 we can identify meaningful statistical differences in al dimensions of the SB and the labor seniority of the personnel in the institution. The higher average scoring of the dimension of the emotional fatigue belongs to the personnel that has a seniority of 6 and 20 years (mean=2.49; P= 0.03). In the depersonalization dimension we can identify medium scoring in the personnel of1-5 years of seniority (mean= 1.53; P=0.000), in exchange the lowest scoring of this dimension belong to the personnel with 21 or years of seniority( mean=o.59;P=0.000).

Finally in the dimension of the lowest personal fulfillment we can identify low average scoring in the personnel with a seniority between 6- 10 yeas (mean=4.12;P=0.000). if this in this dimension our average scoring by seniority range are high we identify meaningful statistical differences like it is shown in table No. 7.

Table No.7 “average scoring by seniority of the burnout syndrome”

<b>MBI average scoring by seniority (variance analysis)</b>				
<b>Dimensions of MBI/seniority</b>	<b>Mean</b>	<b>n</b>	<b>Prove F</b>	<b>p</b>
Emotional Fatigue			2.617	0.036
• From 1 a 5	2.17	69		
• From 6 a 10	2.49	60		
• From 11 a 15	2.11	37		
• From 16 a 20	2.42	34		
• From 21 and on	1.75	52		
Depersonalization			6.449	0.000
• From 1 a 5	1.53	69		
• From 6 a 10	1.39	60		
• From 11 a 15	1.35	37		
• From 16 a 20	1.15	34		
• From 21 and on	0.59	52		
Low Personal Fullfilment			6.560	0.000
• From 1 a 5	4.36	69		
• From 6 a 10	4.12	60		
• From 11 a 15	4.38	37		
• From 16 a 20	4.70	34		
• From 21 and on	5.00	52		

Source: compiled by author with data obtained in this research.

Considering the daily average consulted patients, we identify meaningful statistical differences, just in the depersonalization dimension.

The highest average scoring obtained in this dimension correspond to the personnel with 11 and 15 patients (mean=1.90;P=0.000), as it is shown in table No. 8

Table No. 8 “average scoring of the Burnout Syndorme by the number of assigned patients to the workers”  
**Average MBI scoring by the number of patients (variance analysis)**

<b>Dimensions of MBI\No. Of patients</b>	<b>Mean</b>	<b>n</b>	<b>Proof F</b>	<b>p</b>
Emotional Fatigue			2.385	0.070
• From 1 a 5	2.00	26		
• From 6 a 10	2.08	124		
• From 11 a 15	2.59	55		
• From 15 and on	2.09	47		
Depersonalization			12.625	0.000
• From 1 a 5	0.86	26		
• From 6 a 10	1.20	124		
• From 11 a 15	1.90	55		
• From 15 and on	0.69	47		
Low Personal Fulfillment			2.486	0.061
• From 1 a 5	4.82	26		
• From 6 a 10	4.48	124		
• From 11 a 15	4.23	55		
• From 15 and on	4.63	47		

Source: compiled by author with data obtained in this research.

Considering the independent variable of the labor shift, we identify meaningful differences in the emotional fatigue dimension. The average highest scoring correspond to the personnel working in the morning shift( mean=2.42) and evening(mean=2.47) in contrast with the personnel working the night and mixed shift, as it is shown in table No. 7

Table No. 9 Average scoring of the Burnout Syndrome burnout according to the working shift

<b>MBI Average scoring by shift (variance analysis)</b>				
<b>Dimensions by MBI/shift</b>	<b>Mean</b>	<b>n</b>	<b>Proof F</b>	<b>p</b>
Emotional fatigue			3.342	0.020
• Morning	2.42	82		
• Evening	2.47	44		
• Mixed	1.86	48		
• Night	1.97	78		
Depersonalization			0.402	0.751
• Morning	1.23	82		
• Evening	1.09	44		
• Mixed	1.19	48		
• Night	1.32	78		
Low Personal Fulfillment			0.239	0.869
• Morning	4.49	82		
• Evening	4.59	44		
• Mixed	4.42	48		
• Night	4.46	78		

Source: compiled by author with data obtained in this research.

In the independent variables referred to the main motivational factor and the main demotivating factor in work, in descriptive mode we identify that for a 56% the main motivation in work is the profession its self, 23.4% manifests that is the relationship with the patients and the 20.6% is the professional autonomy. For the 48.4% the main demotivation factor in work is the excess of patients meanwhile for the 24.2% is the salary. The 14.7% is the relationship between co-workers and the 12.7% the working environment. According to table No. 10 we identify meaningful statistical differences between the dimensions of depersonalization and low personal fulfillment with the main motivational factor in work according to the questionnaire. In the dimension of depersonalization we identify average high scoring in the factor of professional autonomy (mean=1.64; p=0.009) in the dimension of low personal fulfillment, the lowest average scoring belongs to the professional autonomy as a main motivational factor. These results help us identify that the aspect of professional autonomy is associated to the presence of high scoring of depersonalization and in the presence of low scoring of low personal fulfillment.

Tabla No.10 “Average scoring of burnout syndrome by main motivational factor at work”

<b>Average scoring of MBI dimensions by main motivational factor at work (Analysis of the variance)</b>				
<b>Dimensions of MBI/Main motivation</b>	<b>Mean</b>	<b>n</b>	<b>Proof F</b>	<b>p</b>
Emotional fatigue			2.733	0.067
• The profesion	2.12	141		
• The profesional autonomy				
• The relationship with the patients	2.56	52		
	2.03	59		
Depersonalization			4.761	0.009
• The profesion	1.15	141		
• The profesional autonomy				
• The relationship with the patients	1.64	52		
	1.04	59		
Low Personal Fulfillment			8.623	0.000
• The profesion	4.64	141		
• The profesional autonomy				
• The relationship with the patients	3.99	52		
	4.54	59		

Source: compiled by author with data obtained in this research.

According to the table number 11, we did not identify meaningful statistical differences among the dimensions of Burnout syndrome and the main demotivation factor at job.

Table No. 11 “average scoring of burnout syndrome by main demotivation factor at work”

<b>Average scoring of the dimensions of MBI by main demotivation factor at work (Análisis de la varianza)</b>				
<b>Dimensions of MBI/ main demotivation factor</b>	<b>Mean</b>	<b>n</b>	<b>Proof F</b>	<b>p</b>
Emotional fatigue			2.765	0.42
• Salary	2.30	61		
• Realationship among co-workers	2.09	37		
• Labor environment	2.72	32		
• Excess of patients	2.01	122		
Depersonalization			1.531	0.207
• Salary	1.39	61		
• Realationship among co-workers	1.13	37		
• Labor environment	1.47	32		
• Excess of patients	1.11	122		
Low Personal Fulfillment			2.316	0.076
• Salary	4.63	61		
• Realationship among co-workers	4.11	37		
• Labor environment	4.41	32		
• Excess of patients	4.54	122		

Source: compiled by author with data obtained in this research.

According with the results in the tables number 5, 6, 7, 8, 9, 10 y 11 we can proof the second hypothesis, and we can confirm that to the sample of this research the main independent variables meaningfully associated to one or diverse dimensions of burnout syndrome were: gender, age, seniority, number of daily patients, labor shift and main motivation factor at job.

### **Conclusions**

In this research we identify that the prevalence of burnout syndrome in the nursery and social work personnel in the public hospital is present in the three analyzed dimensions: emotional fatigue, depersonalization and low personal fulfillment. The main meaningful variables associated to the Burnout syndrome identified were: gender, age, seniority, number of daily patients, labor shift and main motivation factor at work. This research give us empirical important results, we can recommend that future researches will be focused on multivariate analysis with the intención of considering the relationship between the dependent an independent variables (burnout syndrome). It is also recommended that it should be consider to extend the research to all the personnel in the hospital.

### **Recommendations**

The implanting of these measures should be done through the individual, collective and organizational participation, we suggest that the responsibility of the implementing of measures will be focused on the directives.

In an individual level (considering how to deal with stress) we suggest:

- Control strategies (greater communication among co-workers and superiors focusing on problems to solve and decision making), this is in order to avoid the development of the syndrome.
- Focused strategies for the handling of emotions developing habilities for expression of emotions. More efficient labor training, extra labor activities, sports, hobbies, breaks during work, real targets and goals that are easy to achieve. With the purpose of preventing the emotional and physical fatigue.

In an interpersonal level, (maximizing the possibility of create social abilities and related strategies with social support at work).

- With training technics in social abilities we can reinforce alternative conducts at the expectations of the labor, professional and personal life.
- Identify people with negative attitudes for the developing of communication abilities among co-workers superiors as well as with the patients the purpose being to elude physical and verbal aggressions to whom are exposed.
- Creating a group of mutual support among co-workers (This is not a psychotherapy group, but it is a system of support). This group must be guided by a qualified person with the porpoise preventing the emotional fatigue.

In an organizational level (avoiding stressful elements in institutional arena).

- Developing feedback processes from the working groups to the organizational direction, improving the quality of social interaction, establishing continuous communications between workers and superiors.
- Obtaining abilities and skills opening options to change parts in the working system that provokes frustration, making them more pleasurable.
- Forming effective groups, systematic enforcement, planning and redesigning the realization of tasks lowering the labor overload and the dysfunctions of the professional roles, change of activities, rewards, promotions, participating in the decision making, autonomy, multidisciplinary meetings, programmed rotations, shift changings among others to prevent the development of the burn out syndrome.

### References

1. Abu-Hilal, M. M. (1995). Dimensionality of burnout: Testing for invariance across Jordanian and Emirati teachers. *Psychological Reports*, 77, 1367-1375.
2. Belcastro, P. A., Gold, R. S. y Hays, L. C. (1983). Maslach Burnout Inventory: Factor structures for samples of teachers. *Psychological Reports*, 53, 364-366.
3. Brodsky, A. (1980). *Burn-out: Stages of Disillusionment in the Helping Professions*, Human. Sciences Press, New York.
4. Buunk, R.J. y Schaufeli, W.B. (1993). Burnout: A perspective from social comparison theory. En W.B. Schaufeli, C. Maslach y T. Marek (Eds.), *Professional burnout: Recent developments in theory and research*. UK: Taylor & Francis.
5. Cabrera, Gutiérrez L., López, Rojas P., Salinas, Tovar S., Ochoa, Tirado J., Marín, Cotoñieto I. y Haro, García L. (2005), "Burnout síndrome among Mexican hospital nursery staff", *Revista Médica IMSS*, México, 43(1): 11-15.
6. Cherniss, Cary. (1980), *Professional Burnout in the Human Service Organizations*, New York, Praeger.
7. Cherniss, Cary. (1993), The role of professional self-efficacy in the etiology of burnout. En W.B. Schaufeli, C. Maslach y T.Marek (Eds.), *Professional burnout: Recent developments in theory and research*. UK: Taylor & Francis.
8. Cox, T.; Kuk, G. y Leiter (1993). Burnout, health, work stress and organizational healthiness. En W.B. Schaufeli, C. Maslach y T.Marek (Eds.), *Professional burnout: Recent developments in theory and research*. UK: Taylor & Francis.
9. Densten, Iain L. (2005) The Relationship Between Visioning Behaviours of Leaders and Follower Burnout, *British Journal of Management*, Vol. 16, 105–118.
10. Fimian, M. J. y Blanton, L. P. (1987). Stress, burnout, and role problems among teachers trainees and first-year teachers. *Journal of Occupational Behaviour*, 8(2), 157-165.
11. Gil-Monte, P. R., Peiró, J. M. y Valcárcel, P. (1998): A model of burnout process development: An alternative from appraisal models of stress. *Comportamento Organizacional e Gestao*, 4(1), 165-179.



12. Gold, Y., Bachelor, P. y Michael, W. B. (1989). The dimensionality of a modified form of the Maslach Burnout Inventory for university students in a teachers-training program. *Educational and Psychological Measurement*, 49(3), 549-561.
13. González, Zermeño Martha, Benítez Plascencia Orquídea, Fernández Sánchez Abigail, (2007). Un estudio de agotamiento (Burnout) profesional en el personal de salud en el Estado de Morelos. XI Congreso Internacional de la Academia de Ciencias Administrativas A.C. (ACACIA). Guadalajara, Jal. Universidad Autónoma del Estado de Morelos, Facultad de Psicología y Escuela de Enfermería.
14. Golembiewski, R.T.; Munzenrider, R. y Carter, D. (1983). Phases of progressive Burnout and their work site covariants: Critical issues in od research and praxis. *Journal of Applied Behavioral Science*, 19, 461-481.
15. Harrison, W. D., (1983). A social competence model burnout. En B.A. Farber (Ed.), *Stress and burnout in the human services professions*. New York, Pergamon Press.
16. Hobfoll, S.E. y Freedy, J. (1993). Conservation of resources: A general stress theory applied to burnout. En W.B. Schaufeli, C. Maslach y T. Marek (Eds.), *Professional burnout: Recent developments in theory and research*. UK: Taylor & Francis.
17. Gil-Monte, P.R. y Peiró, J.M. (1997). *Desgaste psíquico en el trabajo: El síndrome de quemarse*. Madrid: Síntesis.
18. Kahill, S. (1988), *Symptoms of professional burnout. A review of the empirical evidence. Canadian Psychology*, 29, 284-297.
19. Leiter, M. P. y Schaufeli, W. B. (1996). Consistency of the burnout construct across occupations. *Anxiety, Stress, and Coping*, 9, 229-243.
20. Longás, Mamayo, J. y Fernández, Puig, V. (2003). Enseñar o el riesgo de quemarse. Aproximación al concepto de burnout en la docencia y propuestas para su prevención. Editadom por Prevenció Risc Escolar. España, p. 5.
21. Maslash, C, & Jackson S. E., (1981). *Maslach Burnout Inventory*, Segunda Edición, Palo Alto California, Consulting Psychologists Press.
22. Maslash, C. (1982), *Burnout: the cost of caring. Englewood Cliffs, NJ: Prentice Hall*.
23. Maslash, C, & Jackson S. E., (1986), *Maslach Burnout Inventory. Manual*, 2 rd. ed. Palo Alto (ca): consulting Psychology Press.
24. Maslash, C, Jackson S. E, Leiter M. (1996), *Maslach Burnout Inventory. Manual*, 3 rd. ed. Palo Alto (ca): consulting Psychology Press.
25. Palmer Yusvisaret, Gómez Vera A, Cabrera – Pivaral C. y Prince Vélez R., (2005), Factores de riesgo organizacionales asociados al Síndrome de Burnout en Médicos Anestesiólogos, *Salud Mental*, Vol. 28, No.1, México.
26. Pines, A. (1993) Burnout: An Existential Perspective. In: W.B. Schaufeli, C. Maslcach, & T. Marek (eds.). *Professional burnout: recednt developments in theory and research (35-51)*. London: Taylor & Francis.

27. Reyna Olivera G., Gutiérrez Aguilar J. y Herrera Estrella M. (2004). Síndrome de desgaste profesional en residentes del primer año de psiquiatría del Hospital Psiquiátrico Fray Bernardino Álvarez, Psiquiatría, México, pp. 77-79.
28. Schwab, R. L. (1986). Burnout in education. En C. Maslach y S. E. Jackson, Maslach Burnout Inventory (2ª ed., pp. 18-22). Palo Alto, California: Consulting Psychologists Press.
29. Selye (1956), *The stress of life*. New York: McGraw Hill.
30. Söderfeldt, M., Söderfeldt, B., Warg, L. Y Ohlson, C. (1996). The factor structure of the Maslach Burnout Inventory in two Swedish human service organizations. *Scandinavian Journal of Psychology*, 37, 437-433
31. Starrin, B., Larsson, G. y Styrborn, S. (1996). A review and critique of psychological approaches to the burn-out phenomenon. *Scandinavian Journal of Caring Sciences*, 4(2), 83-91.
32. Thompson, M.S.; Page, S.L. y Cooper, C.L. (1993). A test of Caver and Scheier's self-control model stress in exploring burnout among mental health nurses. *Stress Medicine*, 9, 221-235.
33. Vinaccia, Alpi Stefano y Alvaran, Flores Liliana. (2004). El síndrome de Burnout en una muestra de auxiliares de enfermería: un estudio exploratorio, *Revista Universitas Psicológica, Pontificia Universidad Javeriana*, vol 3, No. 1, Ene-Jun, Bogotá, Colombia, pp. 35-45.
34. Winnubst, J.A. (1993). Organizational structure, social support and burnout. En W.B. Schaufeli, C. Maslach y T. Marek (Eds.), *Professional burnout: Recent developments in theory and research*. UK: Taylor & Francis.
35. Wrigth, D. (1997). The Contribution of Burnout to Work Performance. *Journal of Organizational Behavior*.