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## Analysis of Burnout Predictors in Nursing: Risk and Protective Psychological Factors

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### ABSTRACT

Burnout has become a subject of interest in the field of healthcare, where nursing is one of the most vulnerable professions. The aim of this paper is to analyze the relationship and involvement of sociodemographic and job variables, as well as the intervention of certain emotional intelligence, perceived social support, and general self-efficacy factors in the development of burnout among nursing professionals. The sample was made up of 1,307 participants with a mean age of 32.03 years ( $SD = 6.54$ ). An ad hoc questionnaire, the Brief Burnout Questionnaire, the Brief Emotional Intelligence Inventory for Adults, the Brief Form of the Perceived Social Support Questionnaire, and the General Self-Efficacy Scale were used. Continuous work experience, attending to a larger number of patients, and male sex are the variables related to higher burnout scores. The logistic regression model provides data which back the involvement of certain sociodemographic (sex), work (employment situation and number of users attended to), perceived social support, and some elements of emotional intelligence (interpersonal, mood, and stress management) variables in burnout. The proposal of a model in which personal and employment variables are included is emphasized, which will have a repercussion on the improvement of a preventive intervention and, in turn, optimize the quality of healthcare services.

## Análisis de los predictores del *burnout* en enfermería: factores psicológicos de riesgo y protección

### RESUMEN

El *burnout* se presenta en los últimos años como un tema de interés en el ámbito de la salud, siendo el colectivo de enfermería uno de los más vulnerables por su interacción con el paciente y la necesidad de participar en equipos coordinados. El objetivo de este trabajo es analizar la relación e implicación de variables sociodemográficas y variables propias del desempeño laboral, así como la intervención de determinados factores de la inteligencia emocional, el apoyo social percibido y la autoeficacia general en el desarrollo del *burnout* en profesionales de enfermería. La muestra fue de 1,307 sujetos con una media de edad de 32.03 años ( $DT = 6.54$ ). Para la recogida de datos sociodemográficos se elaboró un cuestionario *ad hoc*, se empleó el Cuestionario Breve de *Burnout*, el Inventario de Inteligencia Emocional Reducido para Mayores, el Cuestionario Breve de Apoyo Social Percibido y la Escala de Autoeficacia General. Una experiencia laboral continuada, con mayor número de pacientes atendidos y pertenecer al sexo masculino son variables que se relacionan con mayores puntuaciones en *burnout*. Hay una implicación de determinadas variables sociodemográficas (sexo), laborales (situación laboral y número de usuarios atendidos), el apoyo social percibido y algunos de los elementos de la inteligencia emocional (interpersonal, estado de ánimo y manejo del estrés) en la presencia o no de *burnout*. Es destacable la propuesta de un modelo en el que se incluyen variables personales y laborales, lo que repercutirá en la mejora de la intervención preventiva y optimizará la calidad en la atención de los servicios sanitarios.

#### Palabras clave:

*Burnout*  
Enfermería  
Inteligencia emocional  
Autoeficacia  
Apoyo social

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In recent years, the stress caused by professional burnout has become a subject of concern in the fields of occupational health and research which is coherent with related fields of knowledge. This is reflected by the [International Labor Organization \(ILO, 2016\)](#), whose 2016 report defined as a public health issue, and therefore, a collective challenge. Since burnout began to be the subject of discussion in the seventies, there has been a growing interest in it ([Carlin & Garcés, 2010](#); [Schaufeli, Leiter, & Maslach, 2009](#)), especially among professionals who work in human services, such as healthcare ([Alexandrova-Karamanova et al., 2016](#); [de Paiva, Canário, de Paiva, & Gonçalves, 2017](#); [Navarro-González, Ayeche-Díaz, & Huarte-Labiano, 2015](#); [Olvera-Islas, Téllez-Villagra, & González-Pedraza, 2015](#)). Among the jobs related to healthcare, nursing is one of the most vulnerable, partly due to the close interaction with patients and the frequent need to work in coordinated teams ([Collet et al., 2018](#); [Vives, Orte, & Sánchez, 2016](#)).

People affected by burnout generally coincide in describing a generalized state of emotional fatigue, which is often manifested by a feeling of exhaustion, apathy, and loss of interest in the job ([Seguel & Valenzuela, 2014](#); [Weinberg & Creed, 2000](#)), as also occurs in other fields, such as caregiving ([Pérez-Fuentes, Gázquez, Ruiz, & Molero, 2017](#)).

Many risk factors have been identified in the literature on the subject. Sociodemographic variables ([García & Herrero, 2008](#); [Garrosa, Moreno-Jiménez, Liang, & González, 2008](#)), characteristics of the work itself, and/or the position held ([Nogueira et al., 2018](#)) have been studied in different disciplines and contexts ([Martos et al., 2018](#)). For example, overwork along with short deadlines could trigger burnout ([Portoghese, Galletta, Coppola, Finco, & Campagna, 2014](#)).

Social support (whether from fellow workers or superiors) has been identified as one of the variables related to burnout, as lack of social support has been related to its presence ([Avendaño, Bustos, Espinoza, García, & Pierart, 2009](#)), while high scores in social support, cognitive empathy, and self-esteem, as well as high means in affective empathy with subjects, frame a profile in which there is less burnout ([Molero, et al., 2018](#)). Along this line, [Leal-Costa, Díaz-Agea, Tirado-González, Rodríguez-Marín, and van-der Hofstadt \(2015\)](#) found that the presence of communication skills in healthcare professionals was a point in favor of preventing burnout. The role of emotions in communication is also well-known, but working in services goes one step further by relating them to job stress or the burnout syndrome ([Nespereira-Campuzano & Vázquez-Campo, 2017](#)). The discussion of the emotional intelligence construct concerns the capacity for understanding one's own emotional states (and those of others), even their management and expression in the field of healthcare work ([Bajo & González, 2014](#)).

Therefore, and going back to the definition of burnout itself as an inadequate response to emotional stress, whose main characteristics refer to exhaustion, a distant attitude in relations with others and feelings of ineffectiveness, the involvement of emotional intelligence ([Landa, Berrios-Martos, López-Zafra, & Aguilar, 2006](#)), perceived self-efficacy ([Yang, 2011](#)), and exposure to non-physical violence ([Llor-Esteban, Sánchez-Muñoz, Ruiz-Hernández, & Jiménez-Barbero, 2017](#); [López-García, Ruiz-Hernández, Llor-Zaragoza, Llor-Zaragoza, & Jiménez-Barbero, 2018](#)) in the syndrome's development is clear.

### Sociodemographic/Professional Variables and Burnout

The literature on sex differences in exhaustion has produced inconsistent results with respect to the strength and direction of this relationship. In fact, data show a tendency which questions the generalized idea that women show a higher risk of burnout than men. This belief is explained in part by the use of general burnout measures, since they are highly consistent with its specific dimension of emotional exhaustion, where women seem to score somewhat higher ([Purvanova & Muros, 2010](#)).

Therefore, concerning sex in the analysis of burnout differences, some studies show higher scores in women ([Garrosa et al., 2008](#)), other studies show higher scores in men ([Khaghanizadeh, Sirati, Abdi, & Kaviani, 2008](#)), while finally other studies show no differences at all ([Losa, Vallejo, & Fuentes, 2010](#)). Concerning age, some authors, such as [Alimoglu and Donmez \(2005\)](#), have not identified a direct association with development of the burnout syndrome.

With regard to the employment situation, specifically job stability, healthcare personnel with a contract for a specific period were found by [Ortega, Ortiz, and Coronel \(2007\)](#) to have a higher level of burnout. However, in other studies, such as the one by [Fernández-Sánchez, Juárez-García, Arias-Galicia, and González-Zermeño \(2010\)](#), more evidence of the syndrome was found in staff with permanent contracts than in temporary workers. The authors explained these differences based on a higher degree of responsibility of fixed staff who therefore respond to higher demand by patients. More recently, [Gómez-Urquiza et al. \(2017\)](#), based on a review of the literature, found that healthcare professionals with a fixed contract showed the highest levels of emotional exhaustion, which could also be related to overwork, among other factors.

### The Role of Emotional Intelligence, Perceived Social Support, and General Self-efficacy in Developing Burnout in Nursing

[Görgens-Ekermans and Brand \(2012\)](#) in a sample of nurses found that high levels of EI, especially with regard to emotion regulation in stress management, was significantly related to decreased exhaustion in chronic stress. Along the same line, [Hong and Lee \(2016\)](#) identified mediation of emotional intelligence between emotional labor and burnout in nursing personnel. In recent studies in other populations ([Morales, 2017](#)), emotional intelligence has been discussed, among other factors, as a starting point in developing coping strategies for daily stress.

The study of the relationship between perceived social support and burnout is another major research topic ([Fradelos et al., 2014](#)). Indeed, inappropriate or unexistent social support can lead to an ailment, particularly burnout ([Aranda, Pando, & Pérez, 2004](#)). Similarly, social support constitutes one of the most relevant personal resources in determining the wellbeing and quality of life of nursing personnel ([Arrogante, Pérez-García, & Aparicio-Zaldívar, 2016](#); [Hatamipour, Hoveida, Rahimghaee, Babaeiamiri, & Ashoori, 2017](#)).

Thus, providing social support in relationships at work and outside of work could have a positive effect on health and wellbeing as an aid to coping successfully with the burnout syndrome ([Scheurer, Choudhry, Swanton, Matlin, & Shrank, 2012](#); [Stevens et al., 2013](#)). The role of social support in reducing emotional exhaustion is more evident in professionals in long-term nursing who are subjected to high levels of stress ([Woodhead, Northrop, & Edelstein, 2016](#)).

In the study carried out by [Kim \(2009\)](#), it was intended to analyze the role of self-efficacy and social support in emotional functioning and burnout in a sample of hospital nurses. The results showed that social support was an important predictor of emotional performance and, therefore, of exhaustion, while self-efficacy does not seem to be a significant predictor. In recent studies, positive relationships have been found between general self-efficacy and emotional intelligence ([Gharetepeh, Safari, Pashaei, Razaee, & Bagher, 2015](#)) and also with perceived social support ([Simón et al., 2017](#)) in students of different health degrees/diplomas. The positive relationship between self-efficacy and emotional intelligence and the benefits to communication skills improvement was also confirmed in samples of nursing professionals ([Zhu, Chen, Shi, Liang, & Liu, 2016](#)).

The general objective of this study was to analyze the involvement of sociodemographic and job variables, along with some emotional intelligence factors, perceived social support, and self-efficacy in the development of burnout in nursing practitioners.

Specifically, based on the bibliography reviewed on the subject, the following hypotheses were posed: (1) burnout correlates negatively with emotional intelligence factors, perceived self-efficacy, and social support, (2) sex differences are significant in burnout, (3) variables related to job performance, such as type of contract and number of users assisted per day, cause differences in burnout, (4) social support and the dimensions of emotional intelligence act as protective factors against the probability of suffering from burnout, and (5) perceived self-efficacy acts as a mediator in the effect of social support on burnout.

## Method

### Participants

The original sample consisted of 1,601 nurses in Andalucía (Spain), randomly selected from different health centers, of whom those actively employed at the time data were acquired were selected. The final study sample was made up of 1,307 participants, of whom 67.1% ( $n = 877$ ) held temporary jobs and the remaining 32.9% ( $n = 430$ ) had permanent contracts.

The mean participants' age was 32.03 years ( $SD = 6.54$ ), ranging from 22 to 60. Of the total sample, 84.5% ( $n = 1,104$ ) were women and 15.5% ( $n = 203$ ) were men, with a mean age of 32.03 years ( $SD = 6.51$ ) and 32.01 years ( $SD = 6.71$ ), respectively.

### Instruments

An ad hoc questionnaire was prepared to acquire the sociodemographic data (age, sex, marital status, and degree) and to compile information on their profession and employment: years of experience, employment status (permanent or temporary), work shifts (rotating, 12 hours or more, only nights, and morning/afternoon), and number of users attended to in a workday.

**Cuestionario Breve de Burnout** [Brief Burnout Questionnaire, CBB] (Moreno, Bustos, Matallana, & Miralles, 1997). This measure consists of 21 items rated on a five-point Likert-type response scale, which evaluates background, elements, and consequences of the syndrome. Its purpose is to acquire a global assessment of burnout and its antecedents and consequences, coinciding with the three blocks the elements on the questionnaire are organized in. The block comprised of the three syndrome factors in the model presented by Maslach and Jackson (1981) is of interest to us here. The instrument's reliability for the study sample, specifically the factor which evaluates general burnout, was  $\alpha = .78$ .

**Inventario de Inteligencia Emocional Reducido para Mayores** [Brief Emotional Intelligence Inventory for Adults, EQ-i 20M] (Pérez-Fuentes, Gázquez, Mercader, & Molero, 2014) validated and scaled by the authors for an adult Spanish population, as adapted from the Emotional Intelligence Inventory: Young Version (EQ-i-YV) by Bar-On and Parker (2000) to adults. It consists of 20 items with four answer choices rated on a Likert-type scale. It is structured in five factors: Intrapersonal, Interpersonal, Stress management, Adaptability, and Mood. Cronbach's alpha for this study was .85 for the total items, and for each of the scales: .91 on Intrapersonal, .77 on Interpersonal, .80 on Stress management, .83 on Adaptability, and .89 on Mood.

**Cuestionario Breve de Apoyo Social Percibido** [Brief Perceived Social Support Questionnaire, CASPE] (Calvo & Díaz, 2004) was developed to study the effect of social support on health, quality of life, and general satisfaction. It consists of nine items (eight of them with four-point Likert-type response scales and one yes/no). The CASPE evaluates quantitative and qualitative aspects of family, friend, and partner relationships. It is possible to score from 9 to 35 points, where the higher the score, the more the perceived social support. The authors, in a geriatric population,

found a Cronbach's alpha reliability for the scale of .65. In this study, the alpha was .77.

**General Self-Efficacy Scale** (Baessler & Schwarzer, 1996). This scale consists of ten items with a four-point Likert-type response format and evaluates a person's perception of his/her own personal competence for effectively managing different stressful situations. Sanjuán, Pérez, and Bermúdez (2000) analyzed the scale's reliability, finding a Cronbach's alpha of .87. In our case, calculation of internal consistency of the scale found an alpha of .92.

### Procedure

Before collecting the data, participants were guaranteed compliance with the standards of information, confidentiality, and ethical data processing. The questionnaires were administered on a Web platform which enabled participants to fill them out online. To control random answers and incongruence, a series of control questions were included for their detection, in which case they were then discarded from the study sample. The study was approved by the Bioethics Committee of the University of Almería (Spain).

### Data Analysis

In this cross-sectional descriptive study, correlational analyses were performed to explore the relationship between continuous quantitative variables, while student's *t*s and ANOVAs were performed with categorical variables.

Then a binary logistic regression was performed using the enter method. To do this, the dependent variable (burnout) was dichotomized taking into consideration the authors' proposal for diagnosis of burnout, with a cutoff point at 25 points. Thus, with over 25 points the person could be considered affected by the syndrome (Moreno et al., 1997). The predictor variables used were sex, employment situation (permanent or temporary), number of users attended to during a workday, emotional intelligence (intrapersonal, interpersonal, stress management, adaptability, and mood), general self-efficacy, and perceived social support. Originally, variables such as age, years of work experience, and type of shift worked (rotating, 24 hours, nights only, morning/afternoon) were also included. In this case, dummy variables were created because it was a polytomous categorical variable. These two variables, along with the above variables were proposed as possible predictors of burnout in a logistic regression using the forward Wald method, which then excluded them from the model. Finally, a nonlinear predictive CHAID (Chi-square Automatic Interaction Detector) regression and classification tree was constructed. All analyses were done using SPSS ver. 23.0 statistical software for Windows.

Finally, to test the mediating effect of the perceived self-efficacy variable, a simple mediation analysis was performed. The Preacher and Hayes' (2004) SPSS macro for mediation effects was used to compute this model. In addition, bootstrapping was applied with coefficients estimated from 5,000 bootstrap samples.

## Results

### Burnout, Sociodemographic Variables, and Job Characteristics

First, a correlation analysis was used to check the relationships between the burnout scores and the continuous quantitative variables. No relationship between burnout and age ( $r = -.02$ ,  $p = .32$ ) was observed, although there was a positive correlation with the number of users attended to during the workday ( $r = .12$ ,  $p < .001$ ). Years of work experience had no correlation with burnout ( $r = .03$ ,  $p = .16$ ).

**Table 1.** Correlations between Burnout and Emotional Intelligence, Self-efficacy, and Social Support Variables

CBB	EQ-i-20M					EAG	CASPE
	Intrapersonal	Interpersonal	Stress management	Adaptability	Mood	Self-efficacy	Social support
Burnout	-.26*	-.26*	-.36*	-.22*	-.34*	-.26*	-.31*

\* $p < .001$ .

Another of the variables related to the work context originally considered was the type of work shift (rotating, 24 hours, nights only, morning/afternoon), but when ANOVA was applied there were no statistically significant differences in the groups ( $F = .28, p = .83$ ). On the contrary, for the employment situation it was observed that the group of professionals with a permanent contract ( $M = 21.07, SD = 5.67$ ) scored significantly higher in burnout ( $t = -4.52, p < .001$ ) than those with a temporary contract ( $M = 19.61, SD = .17$ ).

Finally, by sex, statistically significant differences were found in burnout scores ( $t = 4.21, p < .001$ ), where men ( $M = 21.68, SD = 5.93$ ) scored higher than women ( $M = 19.80, SD = 5.19$ ).

### Burnout and Relationships with Emotional Intelligence, Self-efficacy, and Perceived Social Support Variables

As shown in Table 1, the burnout syndrome score is significantly related negatively with all the emotional intelligence factors (Intrapersonal:  $r = -.26, p < .001$ ; Interpersonal:  $r = -.26, p < .001$ ; Adaptability:  $r = -.22, p < .001$ ; Stress management:  $r = -.36, p < .001$ ; Mood:  $r = -.34, p < .001$ ).

In addition, both self-efficacy ( $r = -.26, p < .001$ ) and perceived social support ( $r = -.31, p < .001$ ) had significant negative correlations with burnout.

### Logistic Regression Model

For the logistic regression analysis with the burnout syndrome as the dependent variable, it was previously dichotomized into two categories, participants affected by the syndrome representing 18.4% ( $n = 240$ ) and those not affected, 81.6% ( $n = 1,066$ ).

As the predictor variables in the equation – sex, employment situation, users attended to, self-efficacy, perceived social support, and finally the five emotional intelligence factors, intrapersonal, interpersonal, stress management, adaptability and mood – were used. Table 2 shows these variables, the regression coefficients, the standard error of estimation, the Wald statistic, with degrees of freedom and associated probability, the coefficient of partial correlation, and the cross-product ratio.

The odds ratio or cross-product ratio found for each variable shows that:

- The risk of burnout is higher in men with permanent employment.
- There is a higher likelihood of risk of burnout in professionals who attend to a larger number of users during the workday.
- Perceived social support acts as a protective factor against the probability of suffering from burnout. Thus, subjects who had the highest mean scores in this construct had a lower risk of developing the syndrome.
- Of the emotional intelligence elements, the interpersonal factor, stress management, and mood (protective effect) were significant factors in the logistic equation.

An overall model fit,  $\chi^2 = 204.11, df = 10, p < .001$ , was observed, as confirmed by the Hosmer-Lemeshow test,  $\chi^2 = 9.75, df = 8, p = .28$ . Similarly, based on the case classification table, the likelihood of the logistic function being right is 82.2%, with a false positive rate of 0.03 and false negatives of 0.19.

As observed in the decision tree (Figure 1), stress management is the best predictor of burnout. Participants with medium-to-high stress management, low interpersonal skill levels, and perceived social support had the highest risk of burnout (41.5%). The lowest risk of burnout (97%) was found for women with high stress management. Finally, the goodness of fit of model functioning may be observed in its correct classification of 81.6% of the participants.

Finally, the results of the simple mediation model are presented in Figure 2 below. Perceived social support was proposed as the predictor variable (X), mediated by self-efficacy (M) of burnout as the dependent variable (Y). In the first regression analysis, self-efficacy (M) was taken as the result variable, and the effect of social support was estimated, finding it to be significant,  $a = 0.58, p < .001$ . In the following regression analysis, taking burnout as the result variable (Y), the effect of the independent variable,  $b = -0.19, p < .001$ , and the mediator,  $c' = -0.44, p < .001$ , were estimated, in both cases statistically significant. The total effect of social support on burnout,  $c = -0.55, p < .001$ , and the indirect effects after application of bootstrapping were significant,  $B = -0.11, SE = 0.02, 95\% CI (-.16, -.06)$ .

**Table 2.** Results Derived from the Logistic Regression for Probability of Burnout

Variables	$\beta$	SE	Wald	df	Sig.	Exp( $\beta$ )	CI 95%
Sex <sub>(Male)</sub>	.689	.199	12.019	1	.001	1.991	1.349-2.939
Employment situation <sub>(Permanent)</sub>	.576	.162	12.640	1	.000	1.779	1.295-2.444
Nº users attended to	.007	.001	23.715	1	.000	1.007	1.004-1.010
General self-efficacy	-.048	.025	3.811	1	.051	0.953	0.908-1.000
Perceived social support	-.107	.029	13.668	1	.000	0.899	0.849-0.951
Intrapersonal	-.042	.035	1.409	1	.235	0.959	0.895-1.028
Interpersonal	-.107	.053	4.099	1	.043	0.898	0.810-0.997
Stress management	-.311	.041	56.269	1	.000	0.733	0.676-0.795
Adaptability	.096	.058	2.781	1	.095	1.101	0.983-1.233
Mood	-.101	.051	3.958	1	.047	0.904	0.818-0.999
Constant	7.729	.916	71.126	1	.000	2,272.338	

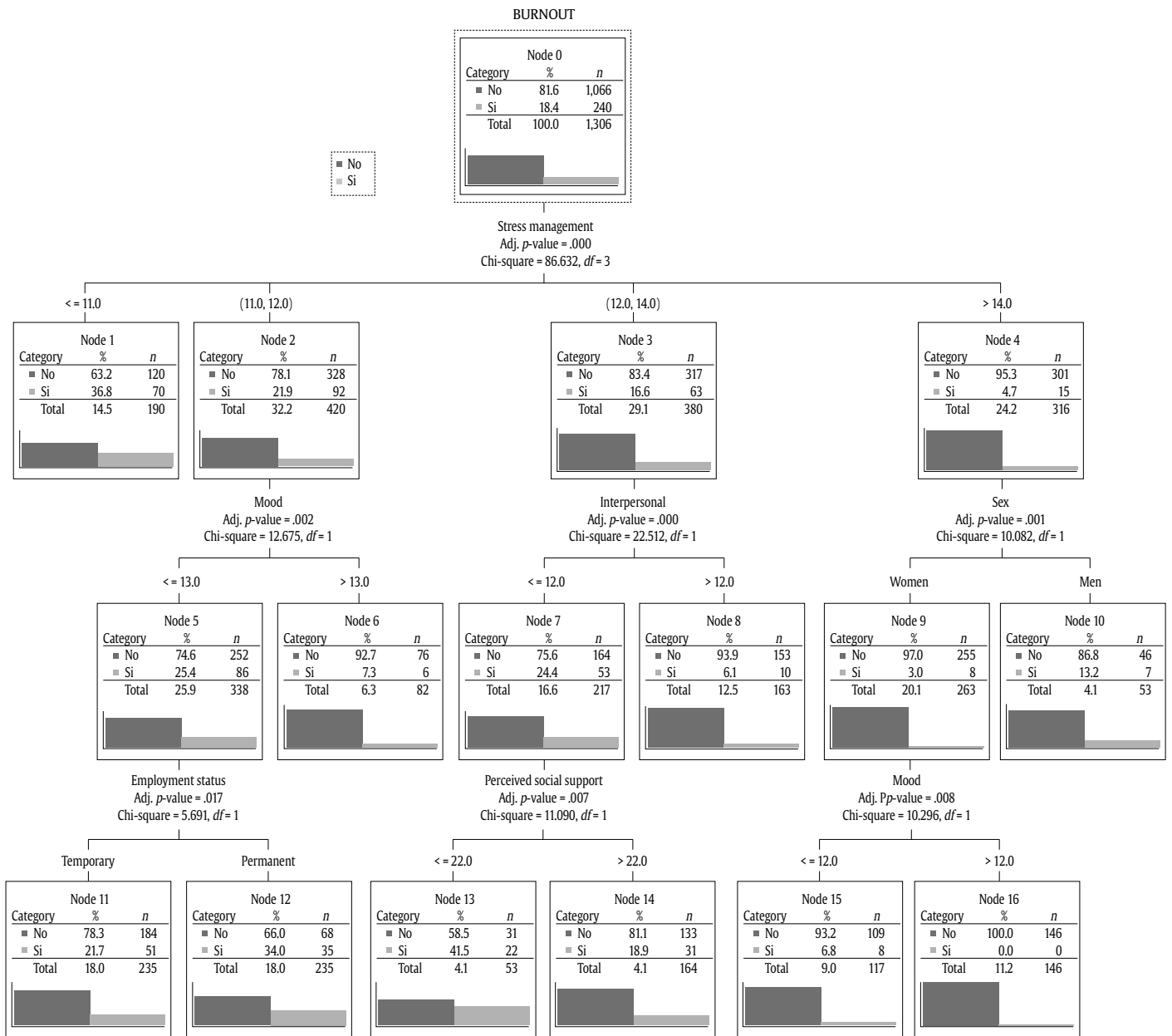


Figure 1. Regression and Classification Tree Burnout.

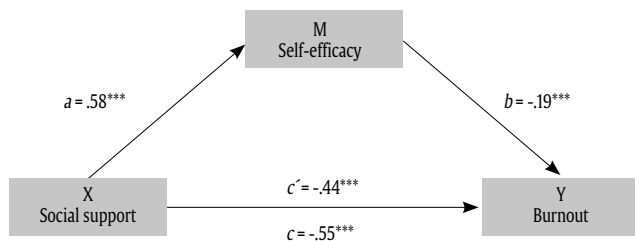


Figure 2. Simple Mediation Model for Self-efficacy on the Relationship between Perceived Social Support and Burnout. \*\*\*p < .001.

**Discussion and Conclusions**

Many studies have analyzed the involvement of different personal (García & Herrero, 2008; Garrosa et al., 2008) and professional

(Nogueira et al., 2018) variables in development of the burnout syndrome in healthcare personnel. In recent years, furthermore, some studies have also suggested the active involvement of psychological variables, such as emotional intelligence (Landa et al., 2006; Nespereira-Campuzano & Vázquez-Campo, 2017), perceived social support (Avendaño et al., 2009) and general self-efficacy (Yang, 2011) in burnout.

The results of this study were intended to identify a series of variables which, as a representation of each of the areas mentioned, constitute risk and/or protective factors (Alexandrova-Karamanova et al., 2016; de Paiva & Gonçalves, 2017; Navarro-González et al., 2015; Olvera-Islas et al., 2015). We specifically focused on nursing professionals as a population vulnerable to this syndrome (Collet et al., 2018; Vives et al., 2016).

In the first place, results for the sociodemographic variables were in line with those of studies (Losa et al., 2010; Purvanova & Muros, 2010), questioning the trend identifying the female sex with

prone to developing burnout. In our case, the risk of suffering from burnout is higher in males (Khaghanizadeh et al., 2008). The lowest risk of burnout was found for women with high stress management. No direct association with the syndrome was observed for age (Alimoglu & Donmez, 2005).

Furthermore, among the professional variables which were finally subjected to logistic regression analysis, a positive correlation was observed with the number of users attended to during the workday, where a relationship was shown between burnout and overwork (Portoghese et al., 2014). Likewise, job stability, as reflected by the type of contract (permanent vs. temporary), showed significant differences in burnout, where the group of professionals with a permanent contract were at the highest risk (Fernández-Sánchez et al., 2010; Gómez-Urquiza et al., 2017).

Previous studies on emotional intelligence variables have emphasized that self-efficacy and social support, and failure to manage emotional demands in social interaction can produce professional burnout (Bajo & González, 2014; Landa et al., 2006). Participants with medium-to-high stress management, low interpersonal skill levels, and perceived social support had the highest risk of burnout. Thus, to the extent that its competency is directed at promoting personal and social wellbeing, emotional intelligence would contribute to preventing development of the syndrome (Kim, 2009; Morales, 2017). Our research showed this in the relationships established with the various emotional intelligence factors analyzed. The results for perceived social support suggest that it might be related negatively to burnout scores (Aranda et al., 2004), with a certain degree of involvement in stress control, and adopting adequate coping behaviors (Arrogante et al., 2016; Hatamipour et al., 2017; Scheurer et al., 2012; Stevens et al., 2013). As in the study by Kim (2009), direct involvement of the role of self-efficacy in developing burnout was not corroborated by our data, even though it had a relationship with social support (Simón et al., 2017) and emotional intelligence (Gharetepeh et al., 2015; Zhu et al., 2016). Nevertheless, in the mediation analysis proposed, the data extracted suggest a mediating role of self-efficacy in the effect exerted by social support on burnout. Therefore, self-efficacy could be indirectly related to the development of the syndrome in our study sample.

The logistic regression model provides data backing involvement of certain sociodemographic variables (sex), job (employment situation and number of users attended to), perceived social support, and some of the emotional intelligence elements (interpersonal, mood and stress management) in whether or not burnout is present. Based on the model proposed, a series of variables that exert a protective or risk function were identified. In the case of emotional intelligence, whose factors reveal a protective effect (Görgens-Ekermans & Brand, 2012; Hong & Lee, 2016), a detailed analysis of the variables that may be mediating these effects becomes necessary. Concerning the emotional intelligence elements that have been shown to be protectors from burnout, positive mood leads to better predisposition of the subject to cope with difficult situations effectively, while the interpersonal factor is related to perceived social support (Fradelos et al., 2014), making the individual stronger, more capable, and more secure in social interaction (Zhu et al., 2016), and consequently better equipped with coping strategies to solve difficult situations that could arise at work. The ability to manage stressful situations is often put to the test for healthcare professionals (Woodhead et al., 2016), which makes them more aware of their decision-making skills, and therefore, effectively resolve such situations.

Along general lines, the results suggest that continuous work experience with a higher number of patients attended to and being of male sex are the variables related to the highest burnout scores. Since, in large part, the presence of burnout in nursing professionals is linked to sociodemographic and professional variables, the need for studies analyzing the relationship between the mentioned variables becomes clear. Therefore, the proposal of a model in which

personal and professional variables are included, providing data on the protection/risk value implied by the factors present, in addition to its contribution to clarifying the relationships with the burnout syndrome, is noteworthy.

Among the practical implications of the study, it should be mentioned that greater knowledge of the incidence of the variables studied in the syndrome which affects a large part of healthcare personnel implies the possibility of preventive intervention proposals to control their appearance which, in turn, will improve the quality of healthcare service attention. On an organizational level, the data provided could facilitate selection, hiring, and promotion of personnel in the area of healthcare. These practical implications should be considered with caution in view of the limitations derived from errors associated with the measurement method. In this case, as an evaluation inserted in the work context, there could be certain sources of error such as malingering (Arce, Fariña, & Vilariño, 2015) and/or denying injury (Arce, Fariña, Novo, & Seijo, 2015), which might or might not respond intentionally in the worker's interest. However, it is true that either case would imply a bias in the honesty of the answers of the professionals in the sample.

In brief, this study identifies possible burnout predictor variables (having a protective effect), as well as the relationships between them. All of this is intended to orient future research toward establishing coping profiles for the triggers of burnout, and not just risk detection.

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