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EXPLORATORY STUDY OF THE RELATIONSHIP OF THE NOM-035-STPS WITH STRESS LEVELS IN THE NURSING STAFF OF A PRIVATE CLINIC IN THE MEXICAN SOUTHEAST

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Abstract: This study investigates the relationship between psychosocial risks and the level of stress in the nursing staff of a private clinic in southeastern Mexico. The Official Mexican Standard NOM-035-STPS-2018 was used to measure psychosocial risk and the Maslach Burnout Inventory to measure stress. The results revealed a significant relationship between psychosocial risk and stress, although the explained variability was 14%. This suggests that other factors also influence worker stress.

Keywords: Psychosocial Risks, Stress, NOM-035-STPS-2018.

INTRODUCTION

Occupational health and worker well-being are crucial aspects in any work environment, but in the field of healthcare, especially among nursing staff, these issues become even more relevant due to the demanding and challenging nature of their work. Work stress is a concern that has gained notoriety in recent years, and its impact on nursing staff must not be underestimated.

In the context of hospital institutions, nursing staff face various occupational risks daily, especially psychosocial risks. These risks are related to the work environment and are influenced by factors such as living with patient suffering, high work demand, and lack of adequate resources (Valencia-Contrera et al., 2022). These factors can generate stress in nursing staff and affect their quality of life, which constitutes a negative impact on the job satisfaction, performance and mental health of these professionals (García & Torres, 2023).

In this context, the Official Mexican Standard NOM-035-STPS-2018 emerges as a fundamental tool to address and measure the level of stress in private companies in the health sector, in the particular case of this research in the nursing area. NOM-035-STPS-2018, issued by the Ministry of Labor and Social Welfare (STPS) of Mexico, represents an important milestone in the regulation of occupational health and the prevention of psychosocial risks in the workplace. This standard establishes specific guidelines for the identification, analysis and prevention of psychosocial risk factors at work, with the aim of safeguarding the mental health of workers and promoting healthy work environments (STPS, 2018). The World Health Organization (WHO) highlights the impact of psychosocial risks at work on workers' health (Leka & Jain, 2010). This organization emphasizes that psychosocial risks can not only affect mental health, but also physical health, increasing the risk of cardiovascular diseases and other health problems. Additionally, stressed workers tend to have lower work performance, which can affect the quality of health care they provide. NOM-035-STPS-2018 seems to become a relevant and timely solution to address these problems. This standard requires employers to carry out periodic assessments of psychosocial risks at work, including the measurement of specific stress factors that affect nursing staff (STPS, 2018). This assessment provides a solid basis for the early identification of risks and the implementation of mental health prevention and promotion measures.

OBJECTIVES OF THE STUDY

NOM-035-STPS-2018 Psychosocial Risk Factors at Work, Identification, Analysis and Prevention, "better known as the anti-stress standard" (El Universal, 2019), seems to explain the factors that determine stress, if so, It is possible to make specific indications of which of the different domains covered by this standard must be resolved or at least attenuated to maintain stress levels at normal and controllable levels. But to do this, it must be known if at least this statement is correct that NOM-035-STPS-2018 is related to the stress that the studied personnel report having.

Therefore, the objective of this research is based on this: to what extent does the global score of NOM-035-STPS-2018 explain the stress level of nursing staff in a private sector health company? And how significant is the psychosocial risk in explaining the level of stress perceived by the staff studied in the nursing department?

THEORETICAL FRAMEWORK

The relationship between psychosocial risks, which are measured by NOM-035-STPS-2018 (STPS, 2018) and the level of stress could be related, however, we do not know if one explains the other with certainty, we must know the concepts on which each one is based to know their relationship.

STRESS OR BURNOUT SYNDROME (BS)

Stress is characterized by symptoms of emotional exhaustion, depersonalization (cynicism) and lack of personal fulfillment in the work context, which results in employees leaving their jobs, also called burnout syndrome (Maslach & Leiter, 2016).

People who suffer from burnout, in the particular case that concerns us for this study, which is the nursing staff, may feel exhausted when trying their best to care for patients, when the possibilities of recovery are minimal. Burned out nursing staff may manifest cynicism through unusual negative behaviors, poor communication with others, and even a lack of courtesy toward coworkers. When healthcare professionals are burned out, they feel like they are not performing their job responsibilities at the highest level, lack motivation, and have poor personal work self-esteem. The emotional toll on healthcare workers, especially nurses who care for patients until the end of their lives, can affect the emotions of the nurses themselves (Wilson & Kirshbaum, 2011).

Nurses may experience a reduction in personal achievement and a lack of satisfaction in response to work-related stressors and eventually leave their position. In addition to the disruption in patient care, the loss of a nurse leaving their position is also associated with significant financial costs (Halter et al., 2017).

The manifestations of burnout syndrome (BS) according to its severity are classified as: mild (non-specific and frequent complaints, little or no desire to go to work, tiredness, difficulty getting up in the morning), moderate (cynicism, negativism, suspicion and isolation); serious (absenteeism from work, self-medication, aversion, drug abuse and slow performance) and finally, extreme (marked social isolation, collapse, psychiatric symptoms and suicides). (Salillas, R., 2017)

PSYCHOSOCIAL RISK FACTORS

The Official Mexican Standard NOM-035-STPS-2018, called "Psychosocial risk factors at work - Identification, analysis and prevention", establishes essential guidelines to evaluate and address psychosocial risks in the work environment (STPS, 2018).

Psychosocial risks refer to elements of work and its organization that can cause stress and have adverse effects on the mental and emotional health of workers (Leka & Jain, 2010). In the health sector, these risks can have a significant impact on nursing staff due to the intensive and emotional nature of their work (Ramírez, 2019).

Psychosocial risks can manifest in various forms, such as excessive workload, lack of control over work, conflicting demands, and lack of social support (Kawakami et al., 2001). These factors can contribute to the development of mental health disorders, burnout, and decreased work performance (Montes & Peña, 2019).

The nursing profession is known for

being challenging and demanding. Nursing professionals face various psychosocial risk factors that can affect their well-being and work performance. Some of these factors include workload, lack of autonomy in decision making, dealing with difficult patients, lack of recognition and support, and constant exposure to emotionally demanding situations. (García & Torres, 2023)

The outcome of this assessment provides a deeper understanding of the specific psychosocial risks faced by nursing staff, allowing for the implementation of mental health prevention and promotion strategies (Leka & Jain, 2010).

METHODOLOGY

The methodology used was to apply a simple linear regression to investigate the relationship between psychosocial risk measured by Standard 035 of the STPS and the results of the Maslach burnout test in the nursing staff of a private clinic in the southeast of Mexico. which involved several steps.

Step 1: Formulation of the Hypothesis. Before beginning the research, the essential thing was to formulate a hypothesis that describes the expected relationship between the variables. To this end, we present the hypothesis that there is a strong positive relationship between psychosocial risk and burnout levels in nursing staff (Babbie, 2016).

Step 2: Data collection. Data were collected from a sample of 52 nurses from a private clinic in southeastern Mexico. The collection, around the concept of psychosocial risks, was done using the revised questionnaire of the Mexican Official Standard NOM-035-STPS-2018 (STPS, 2018) as a data collection instrument, which includes questions related to sociodemographic variables, work and health, including scales to measure job satisfaction, social support

and the level of quality of life, this test presents five perfectly defined categories: Work environment, factors inherent to the activity, organization of time and work, leadership and relationships at work and organizational environment.

In relation to the level of stress I perceive, the Maslach Burnout Inventory (MBI) was used to capture the level of stress of nursing staff, this is a test that additionally provides more detail of three subscales: emotional exhaustion, depersonalization and personal fulfillment.

Step 3: *Descriptive Analysis.* Before performing the linear regression, a descriptive analysis of the variables was carried out to understand their distribution and characteristics. This includes calculating measures of central tendency and dispersion (Field, 2018).

Step 4: *Data Visualization.* A scatter plot was created to visualize the initial relationship between psychosocial risk and burnout levels. This allows visual patterns to be identified (Tabachnick and Fidell, 2019).

Step 5: Simple Linear Regression Analysis. A simple linear regression analysis is performed to model the relationship between psychosocial risk and burnout. A regression equation is obtained that describes how changes in one variable affect the other (Kutner et al.,2005).

Step 6: Interpretation of Results. The results of the regression analysis are examined, including the regression coefficient and the associated p value. It is evaluated whether the relationship is statistically significant. Cohen et al. (2013) explain how to interpret regression results.

Step 7: Communication of Results. The findings are reported in a research report that describes the relationship found between psychosocial risk and

burnout in nursing staff at a private clinic in southeastern Mexico. (American Psychological Association, 2020)

This solid methodological approach allowed us to investigate the relationship between psychosocial risk and burnout in the specific context of nursing in a private clinic in southeastern Mexico.

ANALYSIS OF DATA

Below are the tables related to the data of both the results for the classification of psychological risks (Official Mexican Standard NOM-035-STPS-2018) and the level of stress (Maslach Burnout Inventory).

MBI Score		Questionnaire Nom 35	
Mean	64.44	Mean	115.18
Standard Error	2.12	Standard Error	4.68
Median	61.00	Median	114.00
Mode	71.00	Mode	111.00
Standard Deviation	13.26	Standard Deviation	29.26
Sample Variance	175.78	Sample Variance	855.99
Kurtosis	0.54	Kurtosis	-0.44
Skewness	0.26	Skewness	0.01
Range	65.00	Range	127.00
Minimum	37.00	Minimum	56.00
Maximum	102.00	Maximum	183.00
Sum	2513.00	Sum	4492.00
Count	39.00	Count	39.00

Table 1. Descriptive analysis of observed variables. Detected Psychosocial Risks and Observed Stress Level.

The statistical analysis of the surveys carried out reveals that the level of psychosocial risk, with an average of 115.18, is within the range considered high (99-140). The data distribution is relatively symmetrical, with a median of 114.00 and a mode of 111.00, indicating a concentration close to the center. However, the wide dispersion of the data is reflected in the standard deviation of 29.26 and a range of 127.00, suggesting variability in psychosocial risk levels within the company.

Regarding the level of stress, with an average of 64.44, it is within the range considered medium (34-66). The data show a more skewed distribution, with a median of 61.00 and a mode of 71.00, indicating a concentration slightly skewed toward higher values. The standard deviation of 13.26 and a range of 65.00 indicate less variability in stress levels compared to psychosocial risk.

In terms of comparison, psychosocial risk presents greater variability and a higher mean in relation to the level of stress. This suggests that, although stress is within a range considered medium, the company faces significant challenges in terms of psychosocial risk.

It is important that the company pays attention to these results, since high psychosocial risk can have a negative impact on employee health and well-being, as well as work performance. Interventions must be considered to reduce psychosocial risk and promote a healthier work environment.

In summary, the statistical analysis indicates that the psychosocial risk in the company is high, while the stress level is in a medium range. These results highlight the importance of addressing psychosocial risk factors to improve the work environment and employee well-being.

INTERPRETATION AND DISCUSSION OF RESULTS

The first indicator of the relationship is established by a scatter graph that allows us to visualize the initial relationship between psychosocial risk and burnout levels, as presented below:
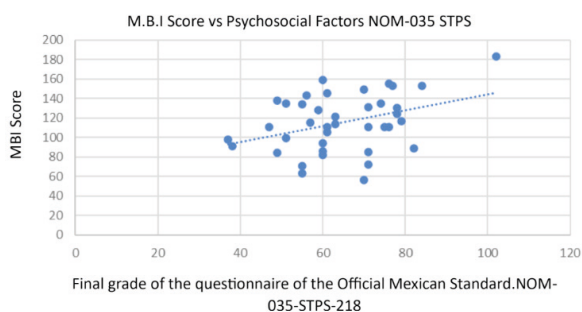
Graph 1. Scatter plot of the MBI score and the observed psychosocial risk rating.

We can at first glance see that the relationship is not linear and that the psychosocial risk measured on the x-axis does not explain the level of stress rated in the study participants, however, it is necessary to investigate a little more into the metrics obtained from the same below:

The data to be analyzed are the model fit, the global significance of the model, the intercept coefficient and the beta obtained.

In this case, the fit of the model is measured with the coefficient of determination (R Square) since it tells me to what percentage degree the dependent variable (M.B.I. score) will change given the changes in the independent variables (global NOM score). -035-STPS). In this case, as the coefficient of determination (R Square) is close to unity we will be making a good prediction in the values of the dependent variable, however, this is not the case, the R Square presented is 0.1377, That is, the stress level moves only 14% as the psychosocial risk score moves 1. In the case of the significance of the model, we will estimate it through the significance of F (Significance F), in which If our results of this critical value of F, which is actually the p-value, were less than 0.05, we can say that our model is significant, and for the case of the study this is so, since we have a significance level F (Significance F) of 0.020. In reference to the values of the intercept, the value that the dependent variable (Y) has when the value of the independent variable (X) is zero, in this case Y = Global score of M.B.I. and indicates that it is significant, the same is valid for the change factor of the variable intercept and change factor of X with respect to Y if it is less than 0.05 we can say that it is significant. Both P values (P-Value) for both the intercept and the variable X meet to be less than 0.05, the intercept has a P-Value of 0.0000003 and the variable X is 0.020029 as can be seen in Table 2.

In summary, this analysis shows that there is a significant relationship between the level of psychosocial risk in the company and the level of stress of nursing workers, and that the level of psychosocial risk can explain a part of the variation in the level of stress. from the workers. However, other factors can also influence the stress level and must be considered.

CONCLUSIONS

The study reveals a significant relationship between psychosocial risks and the level of stress in the nursing staff of a private clinic in southeastern Mexico. Although psychosocial risk explains only 14% of the variability in stress, this relationship underscores the importance of addressing psychosocial risk factors in the nursing work environment. The Official Mexican Standard NOM-035-STPS-2018 emerges as a crucial tool to identify and prevent these risks. However, it is essential to recognize that other factors can influence workers' stress and must be considered in future interventions. Therefore, the following can be established as main recommendations:

1. Implement measures to reduce psychosocial risks at work, such as improving workload, increasing social support, and providing stress management training.

2. Conduct periodic assessments of psychosocial risks and stress in nursing staff to monitor the impact of interventions.

3. Promote self-care and emotional support programs for nursing staff, promoting a healthier work environment.

4. Investigate other factors that may contribute to work stress in nursing and design specific strategies to address them.

5. Maintain an interdisciplinary approach to address the mental health of health workers, involving psychology and human resources professionals in psychosocial

SUMMARY OUTPUT						
Regression Statistics						
Multiple R	0.371091829					
R Square	0.137709145					
Adjusted R Square	0.114403987					
Standard Error	12.47673419					
Observations	39					
ANOVA						
	df	*SS*	*MS*	*F*	*Significance F*	
Regression	1	919.8405938	919.8405938	5.908955596	0.020029083	
Residual	37	5759.74915	155.6688959			
Total	38	6679.589744				
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	45.06701971	8.21464951	5.486176818	0.000003	28.42255879	61.71148064
X Variable 1	0.168162563	0.069178948	2.430834341	0.020029	0.027992699	0.308332426

Table 2. Metrics obtained from the regression.

risk management.

As future research directions I could establish three mainly:

1. The exploration of the influence of sociological variables of workers on the assessment of the company's global psychosocial risk.

2. The exploration of the categories of the Official Mexican Standard NOM-035-STPS-2018 in the global assessment of stress.

3. The exploration of the domains of the Official Mexican Standard NOM-035-STPS-2018 in the global assessment of stress.

The above, to determine the level of explanation and therefore the causes that the effort of the administration of a private health company must prioritize in its approach to reduce alarming levels of stress in its nursing staff.

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