


ORIGINAL

## Stress level in nursing professionals working at a hospital center in Callao

### Nivel de estrés en profesionales de enfermería que laboran en un centro hospitalario del Callao

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#### ABSTRACT

Stress among nurses is one of the most common problems today, making it difficult for them to provide quality care. Therefore, the objective of this research is to determine the level of stress among nursing professionals working in a hospital in Callao. This is a quantitative, descriptive, cross-sectional study with a total population of 200 nurses who responded to a questionnaire on sociodemographic data and the nursing stress scale. The results show that 91 (n=45,5 %) have low stress, 88 (n=44 %) have medium stress, and 21 (n=10,5 %) have high stress. In conclusion, strategies should be sought to develop tools for coping with stress during the workday.

**Keywords:** Psychological Stress; Nursing; Mental Health.

#### RESUMEN

El estrés en los enfermeros es uno de los problemas más comunes en la actualidad que ejercen dificultades para los cuidados de calidad por parte de ellos, por ello, el objetivo de investigación es, determinar el nivel de estrés en profesionales de enfermería que laboran en un centro hospitalario del Callao. Es un estudio cuantitativo, descriptivo y transversal, con una población total de 200 enfermeras que respondieron un cuestionario de datos sociodemográficos y la escala de estrés en enfermería. En sus resultados, 91 (n=45,5 %) tienen bajo estrés, 88(n=44 %) estrés medio y 21(n=10,5 %) estrés alto. En conclusión, se debe buscar estrategias que permitan desarrollar herramientas de afrontamiento contra el estrés dentro de la jornada laboral

**Palabras clave:** Estrés Psicológico; Enfermería; Salud Mental.

#### INTRODUCTION

Worldwide, as a result of the coronavirus pandemic (COVID-19), nursing professionals have experienced factors such as fear, pressure, fatigue, ongoing emotional trauma, and isolation throughout the pandemic.<sup>(1)</sup> This significantly affects the mental health of nursing professionals, preventing them from providing good care.<sup>(2,3)</sup>

At the same time, nurses are in a state of physical and mental stress and feel isolated and helpless in the face of health threats and the pressure of high-intensity work caused by such public health emergencies.<sup>(4,5)</sup>

However, even before the outbreak of this disease, the workload of healthcare professionals was already

high, especially for nurses, as they make up the majority of the healthcare workforce;<sup>(6,7)</sup> and COVID-19 has further exacerbated these problems, leading to more psychological/emotional problems such as stress.<sup>(8,9)</sup>

Given that there are occupational stressors and related factors for nurses that can change over time, reflecting factors such as the evolution of healthcare, changes in consumer relations, and regulatory and legislative changes.<sup>(10,11)</sup>

In a study conducted in Iran on 5,422 nurses, the results indicate that occupational stress was 3,48, which indicates a moderate to high level of stress, and 78,4 % indicated that their work was stressful. The nurses reported problems with shift work, staffing, pay, workplace discrimination, management, policy, and excessive workloads.<sup>(12)</sup>

In Australia, among 705 nurses, the findings indicate that healthcare professionals in public hospitals perceive more stress than those working in private hospitals. Male nurses with a high school diploma who worked in a public hospital and had between 1 and 10 years of experience had more emotional exhaustion.<sup>(13)</sup>

In a study conducted in Egypt involving 210 nurses, the results showed that three-quarters of nurses (75,2 %) had high stress levels compared to the remaining 60,5 %. The type of hospital and its related workload were the most significant predictors of the results.<sup>(14)</sup> Another study by Hendy et al. in 2020 involved 374 nurses and used the NSS as a measurement tool. The findings indicate that, in terms of stress, moderate levels predominated (52,1 %) among nurses, followed by severe levels (13,4 %) and mild levels (8,3 %). They concluded that stress was moderate due to the fact that nurses were studying and working, coupled with work overload and lack of training related to COVID-19, which affects professional performance.<sup>(15)</sup>

In a study conducted in South Asia in 2021, 427 nurses participated and the NSS was used as the instrument. The results indicate that, in terms of stress, mild levels predominated (26,8 %), followed by moderate (52,1 %) and severe (21,1 %). They concluded that stress was high due to excessive patient demand and fear of contracting a disease.<sup>(16)</sup>

In a study conducted in Peru in 2020, involving 102 nurses and using the NSS as the instrument. The results indicate that, in terms of stress, the low level predominated (47,1 %), followed by the medium level (42,2 %) and the high level (10,8 %). It was concluded that stress was low, due to the fact that participants received emotional psychological support and took timely measures to reduce their workload.<sup>(17)</sup>

Therefore, the research objective was to determine the level of stress among nursing professionals working in a hospital in Callao.

## METHOD

### Research type and design

The study is quantitative in nature and descriptive-cross-sectional in methodology, with no experimental design.<sup>(18)</sup>

### Population

The population consisted of a total of 200 nursing professionals from the hospitalization area of a hospital in Callao.

### Inclusion Criteria

- Participants who have worked at the hospital for more than 6 months.
- Participants working in the hospitalization area
- Participants who agree to participate in the study

### Technique and Instrument

The data collection technique was a survey, which included sociodemographic data and the Nursing Stress Scale (NSS) in its Spanish version.

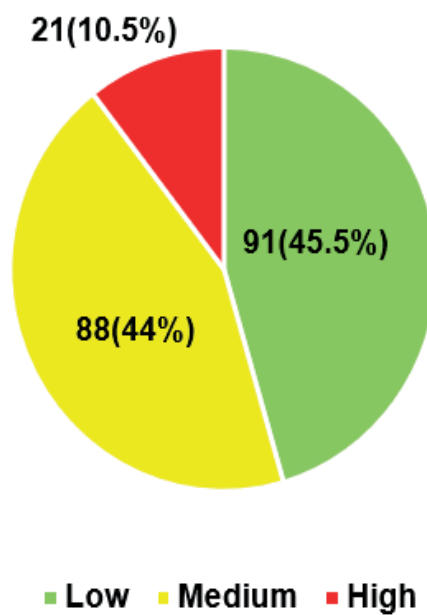
The NSS consists of 34 items distributed across three dimensions (physical environment, psychological environment, and social environment). Each item has response options on a Likert scale, where “Never = 0,” “Sometimes = 1,” “Frequently = 2,” and “Very frequently = 3.” With a total score of 102, the final values are classified into three levels: low (0-34 points), medium (35-68 points), and high (69-102 points). The higher the score, the higher the stress levels among nurses.<sup>(19,20)</sup>

Statistical validation was carried out using the Kaiser-Meyer-Olkin sample adequacy test, obtaining a value of 0,806 (KMO > 0,5), and the Bartlett test, obtaining p 0,6), which was interpreted as reliable.

Finally, Cronbach's alpha reliability test was performed, with a result of 0,713 ( $\alpha > 0,6$ ), interpreted as reliable.

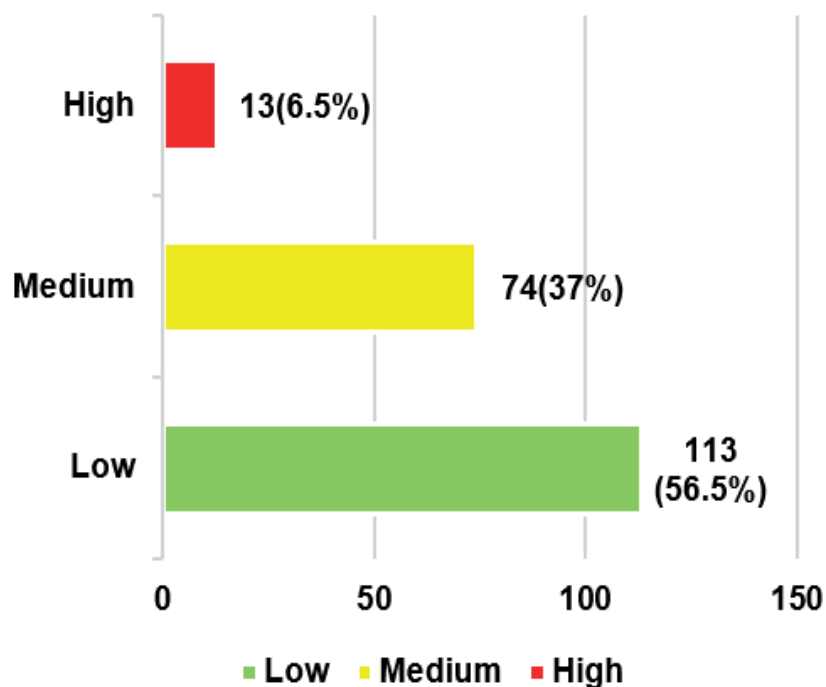
### Place and Application of the Instrument

First, prior arrangements were made with each nursing professional so that they could voluntarily fill out the questionnaires after receiving information about the study and thus be aware of what was going to be done.

**RESULTS**

**Figure 1.** Stress levels among nursing professionals working in a hospital in Callao

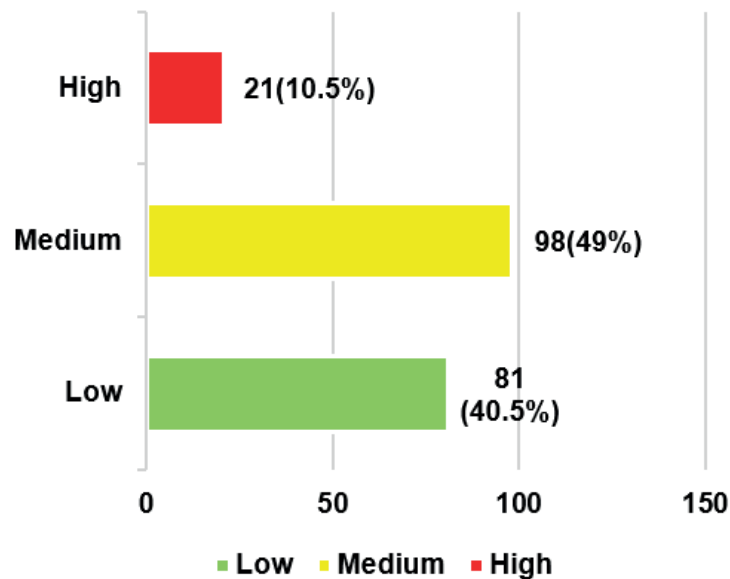
In figure 1, we can see that 45,5 % of participants have low stress levels, 44 % have medium stress levels, and 10,5 % have high stress levels.



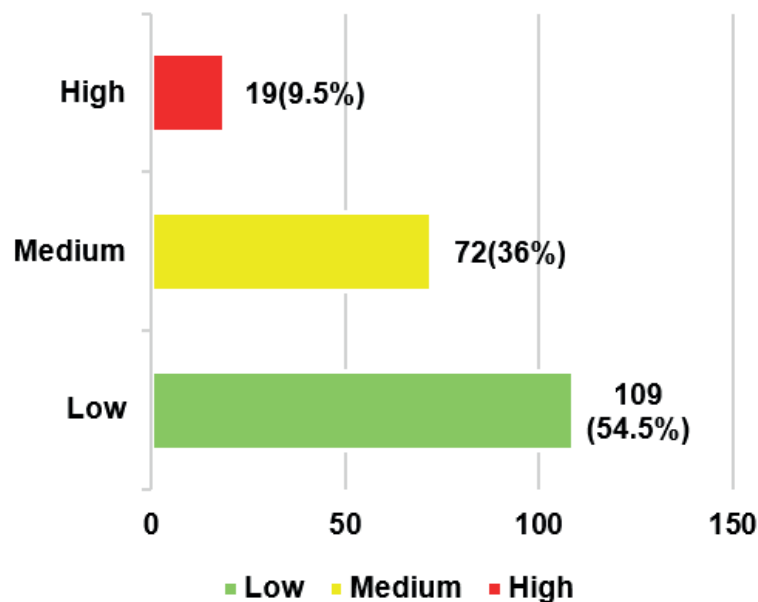
**Figure 2.** Stress levels in the physical environment dimension among nursing professionals working in a hospital in Callao

In figure 2, regarding the physical environment dimension, the results show that 6,5 % of participants have high stress levels, 37 % have medium stress levels, and 56,5 % have low stress levels.

Figure 3 shows that, in terms of the psychological environment dimension, 10,5 % of participants have a high stress level, 49 % have a medium stress level, and 40,5 % have a low stress level.



**Figure 3.** Stress levels in the psychological environment among nursing professionals working in a hospital in Callao



**Figure 4.** Stress level in the social environment dimension among nursing professionals working in a hospital in Callao

In figure 4, with regard to the social environment dimension, the results show that 9,5 % of participants have high stress levels, 36 % have medium stress levels, and 54,5 % have low stress levels.

## DISCUSSION

This study addresses the issue of stress in nursing professionals from a preventive and promotional perspective, which seeks to contribute up-to-date knowledge that will provide insight into the emotional health of these professionals and, in turn, generate conditions that will improve their health.

The results show that nursing professionals have low stress levels. This is because nursing professionals have strategies for responding to stress, which can be seen as a process of interaction that causes immediate psychophysiological reactions. Therefore, when nurses experience stress due to work overload, lack of staff support, exposure to death and uncertainty regarding patient treatment, and insufficient availability of personal protective equipment, their stress levels rise.

In terms of dimensions, we observed in the results that nurses have low levels of stress in the physical and social dimensions and medium levels in the psychological dimension. This is because nurses experience work overload that affects nursing care. On the other hand, they do not have enough time for interventions and to provide emotional support to patients and their families. In addition, there are inadequate schedules and shifts that overwhelm staff and prevent them from performing their duties properly. Not only that, but as a result of the pandemic, nurses are under a great emotional burden due to the uncertainty and fears of contagion from this disease. Added to this is the excessive workload and increased demand for patients seen daily. This acts as an emotional risk factor, and when all these factors are present, it compromises inter-professional relationships, especially in nursing, and this creates a tense atmosphere that generates internal conflicts within the institution where they work.

Therefore, the management team of the nursing department and hospitalization service of the hospital must ensure the proper functioning and dynamics of the service. They must analyze the external and internal context in which we live and review the best scientific evidence to support decisions that benefit the nurses who work there.

## CONCLUSIONS

In conclusion, strategies should be implemented to allow for the proper allocation of healthcare personnel in order to minimize stress levels among nursing professionals.

It is concluded that group emotional support programs should be implemented for healthcare professionals in order to reduce stress and improve the quality of care provided by nurses.

It is concluded that strategies should be sought to develop tools for coping with stress during the workday.

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#### CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

#### AUTHOR CONTRIBUTION

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*Writing - review and editing:* Milusca Jaqueline Velarde-Tejada, David Fidel Vela-Quico, Fernando Ubaldo Enciso-Miranda, Isaura Oberson Santander, Adalid Rimer Condo-Gutierrez.