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REVIEW

Impact of work-related stress on occupational health in nursing

Impacto del estrés laboral en la salud ocupacional de enfermería

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ABSTRACT

Introduction: nursing staff played a fundamental role in the hospital setting, being an essential pillar of patient care. Karasek's demand-control theory explained that stress arose when high job demands were combined with low levels of control and little social support. This approach made it possible to understand how working conditions directly influenced the physical and psychological health of nursing staff.
Development: work-related stress was defined as the body's response to demands that exceeded the worker's capabilities. This phenomenon was accompanied by physical, psychological, and behavioral symptoms that affected their performance and quality of life. Stages such as alarm, resistance, and exhaustion were identified, leading to serious emotional and physical complications, while eustress was presented as a positive factor that stimulated motivation and creativity. However, distress predominated in scenarios of work overload, long shifts, and precarious wages. Physical, psychological, and social factors, such as long working hours, work-family conflicts, and lack of institutional support, increased the risk of stress-related illnesses.
Conclusion: the analysis showed that nursing staff were exposed to multiple stressors that compromised their overall well-being and professional performance. It was concluded that promoting a healthy work environment, strengthening autonomy in practice, and ensuring social support were essential strategies for reducing the effects of stress, improving the quality of care, and preserving occupational health.

Keywords: Work-Related Stress; Nursing; Occupational Health; Psychosocial Factors; Demand-Control.

RESUMEN

Introducción: el personal de enfermería desempeñó un rol fundamental en el ámbito hospitalario, siendo un pilar esencial en la atención al paciente. La teoría demanda-control de Karasek explicó que el estrés surgió cuando las altas exigencias laborales se combinaron con un bajo nivel de control y escaso apoyo social. Este enfoque permitió comprender cómo las condiciones laborales influyeron directamente en la salud física y psicológica del personal de enfermería.
Desarrollo: el estrés laboral se definió como la respuesta del organismo frente a demandas que superaron las capacidades del trabajador. Este fenómeno estuvo acompañado de síntomas físicos, psicológicos y conductuales que afectaron su desempeño y calidad de vida. Se identificaron etapas como alarma, resistencia y agotamiento, que derivaron en graves complicaciones emocionales y físicas, mientras que el eustrés se presentó como un factor positivo que estimuló la motivación y la creatividad. Sin embargo, el distrés predominó en escenarios de sobrecarga laboral, turnos prolongados y precariedad salarial. Factores físicos, psicológicos y sociales, como jornadas extensas, conflictos trabajo-familia y falta de apoyo institucional, incrementaron el riesgo de padecer enfermedades asociadas al estrés.
Conclusión: el análisis evidenció que el personal de enfermería estuvo expuesto a múltiples estresores que comprometieron su bienestar integral y desempeño profesional. Se concluyó que promover un ambiente laboral saludable, fortalecer la autonomía en la práctica y garantizar apoyo social resultaron estrategias

indispensables para reducir los efectos del estrés, mejorar la calidad asistencial y preservar la salud ocupacional.

Palabras clave: Estrés Laboral; Enfermería; Salud Ocupacional; Factores Psicosociales; Demanda-Control.

INTRODUCTION

Nursing staff play a fundamental role in the hospital setting, being an essential component of patient care.[1] The demand-control theory, created by Robert Karasek in 1977, posited that stress arises from the interaction between job demands and the control that workers have over them. Specifically, this theory proposed that "workers will experience psychological stress when job demands are high and control over them is low".[2] In the context of nursing, this theory suggested that the combination of high job demands and low control was associated with higher levels of stress.

However, it also suggested that when nursing staff faced high levels of demands but had a high level of control and autonomy in their work, they experienced less stress. In addition, it was recognized that social support from colleagues and supervisors acted as a limiting factor on stress. Thus, demand-control theory describes a balance between job demands and the ability to control them.

DEVELOPMENT

Stress is defined as "the set of physiological reactions that prepare the body for action";[3] it is accompanied by unpleasant emotions such as anxiety, sadness, and irritation, affecting one's effectiveness in daily life. Work-related stress is defined as the "response that occurs when work demands and pressures do not correspond to the worker's knowledge and skills," that is, when the demands of the job exceed the worker's abilities, knowledge, and skills to meet the demands of a company.[4]

The problem of work-related stress arises when workers are unable to adequately control their behavior, which has a significantly negative impact on their performance and actions at work. According to Vidal, work-related stress can be more harmful than alcohol and tobacco combined, as it can prevent people from leading a normal life. In addition, studies by the BBC have shown that stress reduces neuroplasticity (the brain's ability to change and adapt to new expectations) and affects the way individuals deal with problems, limiting their ability to effectively manage situations in the workplace.

Stages of Work-Related Stress

Alert

In this first stage, changes in the body caused by stress begin to be perceived, causing changes at the glandular, hormonal, respiratory, and digestive levels, among others. According to Acero and Villa, when an individual begins to face stressful situations, they begin to see warning signs on a physical level, such as an increase in heart rate. This phase is characterized by two stages: shock and counter-shock. In the first stage, physical symptoms such as tachycardia appear. Incounter-shock, the body's defenses are mobilized.

Resistance

This is considered an alarm stage, as it causes gradual mental and physical deterioration. According to Acero and Villa, the individual begins to unconsciously adapt to the provocations generated by stress, which causes the initial symptoms in the first stage to disappear. However, the person tends to repress their feelings, and as a result of this resistance, various illnesses such as ulcers or bronchial asthma may arise. Some of the most common symptoms in this phase are anxiety and fatigue.

Exhaustion

The exhaustion stage manifests itself when the person is continuously and prolonged exposed to stressful situations, exhausting their coping and adaptability skills. The body collapses and begins to cause serious physical and emotional complications, increasing the risk of developing illnesses such as anxiety and depression.[5] In this phase, the illnesses of the alarm stage reappear, but they can be much more serious, threatening the body.

Eustress

Eustress, or good stress, is the "state that causes activation, necessary to successfully complete a test or complicated situation. It is normal and desirable". In other words, it is a type of positive stress that occurs when physical activity, enthusiasm, and creativity increase. In addition, "a certain amount of stress, appropriate to the demands and capabilities of managers, is actually positive and beneficial, as it provides a healthy and

attractive stimulus for challenges and increases self-esteem".[6] This contributes to better performance at work, as well as in personal and family life, reducing the negative effects on the life of each individual.

Distress

This is unpleasant stress that affects people tragically, "causing excessive effort... leading to inadequate, excessive, or dysregulated psychophysiological activation, causing exhaustion, suffering, and emotional exhaustion." When the body does not respond adequately to stressors or responds in an exaggerated way, whether biological, physical, or psychological, this can lead to excessive energy consumption, causing distress.[6]

Symptoms of stress

According to Chicaiza et al.[7], stress symptoms can be classified as: physical, such as hypertension, hyperventilation, nausea, constipation, sleep problems, headaches, and body aches; psychological: irritability, mood swings, inability to relax, lack of motivation, feelings of overwhelm and isolation, difficulty concentrating, memory loss, constant feelings of worry, focusing only on negative aspects, anxious and rushed thoughts; and finally, there are behavioral symptoms, which include impulsive and reckless behavior, isolation, procrastination, alcohol and drug use, decreased food intake, and decreased performance of tasks.

Physical Factors Involved in Work-Related Stress

Stress is reflected in many ways in a worker's life, having a significant impact on health. Long working hours were one of the main indicators of stress among healthcare personnel, with those exposed to shifts longer than 24 hours more likely to make mistakes and report higher levels of stress than those working shorter shifts.[11,12,13] In addition, the physical demands and rotating shifts that staff are involved in lead to physical changes: "healthcare workers with night shifts have a lower quality of life, emotional exhaustion, and obesity."[14]

Psychological Factors Involved in Work Stress

Work demands and pressures had a considerable impact on the mental health of healthcare personnel. Psychological stress is described as the interaction between the person and the environment, which emphasizes the importance of the control that each individual must develop in the face of the various situations that arise.[15,16] According to Mieles, "the perception of reward-effort and demand-control depends mainly on momentary tasks, and the perception of reward is negatively influenced by personal factors such as emotional exhaustion".[17,18]

Social Factors Involved in Work Stress

Social factors such as work-family conflict and social support significantly influence levels of work stress. Niño et al.[19,20] mention that "the greater the social support, the lower the stress, and thus a work environment is achieved in which supportive relationships between colleagues are fostered". In other words, when workers have the backing and support of their colleagues, they are better able to cope with the demands and pressures of work.[21,22] These factors play an important role in the health and well-being of workers.

Stressors for healthcare personnel

According to Porras-Parral et al.[23], an unfavorable economic situation with insufficient remuneration can lead to a gradual decline in idealism, energy, and the desire to achieve goals. Nurses in Ecuador face a precarious employment situation precarious situation in terms of wages. This situation has led to a shortage of nurses to meet the needs of patients. The World Health Organization[24] states that there should be 23 nurses per 10 000 inhabitants. However, according to data from the Pontifical Catholic University of Ecuador (PUCE), Ecuador has 15 nurses per 10 000 inhabitants, indicating a shortage of nurses, which limits patient care. In addition, they are exposed to performing tasks that are not in line with their training.

Nursing interaction is not only with the patient, but also with family members, which implies emotional exhaustion. According to Cortez-González et al.[25], the increase in COVID-19 patients during the night shift, the lack of support from supervisors, and the death and suffering of patients caused greater stress among staff. However, these behaviors continue to be observed today, creating toxic work environments that hinder progress in the health and recovery of patients and even workers. Martínez[26] states that "when there is a good work environment, people's health and well-being improve, and when there is a bad environment, it harms health".

Nursing staff face multiple stressors that affect both their physical and psychological health. In addition, there are areas where stressors manifest themselves with greater intensity.[27,28,29] Some of the most frequent stressors are performing too many non-nursing tasks, not having enough time to support the patient, seeing a patient suffer, and feeling insufficiently prepared to help the family and patient.[30,31] The research by Molina-Chailán et al.[14] highlights that "caring for people exposes workers to stress and psychosocial risks that can sometimes lead to occupational illness."

CONCLUSIONS

The analysis revealed that nursing staff were exposed to multiple occupational stress factors that significantly affected their physical, psychological, and social well-being. The application of demand-control theory explained how the combination of high job demands, low control, and poor social support was related to higher levels of stress and exhaustion in this group. It was evident that work stress not only altered professional performance but also impacted workers' quality of life, causing physical illness, emotional disorders, and a decrease in coping skills.

Likewise, it was found that stress did not always have a negative effect, as eustress functioned as a mechanism for motivation and adaptation, promoting creativity and performance in certain circumstances. However, when exposure was prolonged, distress occurred, with serious consequences such as depression, anxiety, and deterioration in work and family relationships. The review showed that working conditions, such as long shifts, task overload, lack of recognition, and precarious wages, contributed decisively to the onset of stress in nurses.

Finally, it was concluded that occupational health in nursing required prevention policies and interventions that strengthened autonomy, control over work, and social support in healthcare teams. Addressing these issues was essential not only to protect the health of staff but also to ensure quality patient care and the proper functioning of hospital services.

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