


REVIEW

Quality of life of nurses working in the shift system: a scoping review

Calidad de vida de enfermeras que trabajan en sistema de turnos: una revisión de alcance

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ABSTRACT

Introduction: the emergence of the concept of quality of life dates back to the 1930s in Europe. Shift work is a widely used system in health services in order to provide continuous care to users, with nursing being the most abundant workforce. Quality of life is a widely researched topic, however, there is insufficient evidence regarding the quality of life of nurses working in a shift system.

Method: scoping review based on the PRISMA-ScR model, by means of a literature search in the databases Medline, Embase, Web of Science (WoS), Cochrane Library, PubMed, and MedicLatina, selecting articles by consensus, with prior critical reading masked by two researchers.

Results: four areas emerged: psychological, physical, occupational and social. It is evident that shift work is negatively associated with the development of these areas, causing problems in each of them.

Conclusions: the literature on this subject is scarce, and in Chile there is no evidence on the subject, which opens up new niches for research into the well-being of nursing professionals in all spheres.

Keywords: Shift Work Schedule; Quality of Life; Nurses; Mental Health.

RESUMEN

Introducción: el surgimiento del concepto de calidad de vida se remonta a los años 30 en Europa. El trabajo por turnos es un sistema ampliamente utilizado en los servicios sanitarios con la finalidad de otorgar cuidados continuos a los usuarios, siendo enfermería la fuerza laboral más abundante. La calidad de vida es un tema ampliamente investigado, sin embargo, no se cuenta con suficiente evidencia respecto a la calidad de vida de enfermeras que trabajan en sistema de turnos.

Método: revisión de alcance basada en el modelo PRISMA-ScR, mediante búsqueda bibliográfica en las bases de datos Medline, Embase, Web of Science (WoS), Cochrane Library, PubMed, y MedicLatina, seleccionando artículos por consenso, con previa lectura crítica enmascarada por dos investigadoras.

Resultados: se desprenden 4 áreas: psicológica, física, laboral y social. Se evidencia que el trabajo de turnos se asocia negativamente al desarrollo de estas áreas, provocando problemas en cada una de ellas.

Conclusiones: la literatura respecto de la temática desarrollada es escasa, y en Chile no existe evidencia al respecto, por lo que se abren nuevos nichos de investigación respecto al bienestar de los profesionales de enfermería en todas sus esferas.

Palabras clave: Trabajo Por Turnos; Calidad de Vida; Enfermeras; Salud Mental.

INTRODUCTION

People's quality of life has been widely studied since the 1960s, although this concern has existed since the 1930s in Europe.⁽¹⁾ Although no universal definition exists, it is recognized as a multidimensional concept encompassing health, social life, public policies, economic development, and psychological well-being.⁽²⁾ It can also be studied along two dimensions: a) objective, which includes harmonious relationships with the social, physical, and community environment, health, and material well-being; and b) subjective, which includes intimacy, perceived health and safety, personal productivity, and emotional expression.^(3,4)

To respond to the continuous care needs of patients, nursing has introduced shift work, a system widely used worldwide.⁽⁵⁾ This refers to work carried out by teams working alternate and rotating schedules, different from the standard 7:00 AM to 6:00 PM, which can alter psychosocial and work performance and the vital functions of people;⁽⁴⁾ such as the alteration of the circadian cycle⁽⁶⁾ and the adoption of harmful habits such as the consumption of alcohol, drugs, tobacco, unhealthy food, among others.⁽⁷⁾

It is necessary to consider that to provide quality care; nursing professionals must have an adequate state of mental health influenced by their biopsychosocial environment.⁽⁸⁾ Care strategies for nurses and health professionals, in general, depend on the public health policies of each nation and its institutions, where improvements in these areas can have a positive impact on the performance and quality of life of workers, contractual and working conditions, salary satisfaction, availability of work supplies and tools, and workload.⁽⁹⁾ An example is the Chilean administrative statute enacted in 2005 that provides supplementary rest for those who work overtime or monetary remuneration if they cannot take it.⁽¹⁰⁾

The literature is scarce regarding explicit policies and strategies to improve, protect, and maintain an adequate quality of life in the context of nurses. However, the evidence does specify that there are factors that put them at risk and have direct repercussions. On the other hand, abundant literature studies the quality of life in different populations. However, it is little developed in the population of nursing professionals.

This is why this scoping review aims to compile literature on the quality of life of nurses working under a shift system.

METHOD

Design

A scoping review based on the PRISMA-ScR model (Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews) has been conducted.⁽¹¹⁾

Eligibility criteria

Studies were included if they incorporated the topic of quality of life in nurses working in a shift system between 2019 and 2024 in English, Portuguese, or Spanish and were available in full text free of charge. We excluded articles that did not have an abstract, that studied nursing assistants or assistants, nursing students or nurses with chronic and/or mental health conditions, and those studies that included in their sample other professionals working in a shift system.

Search strategy

The search was conducted in July 2024 in Medline, Embase, Web of Science (WoS), Cochrane Library, PubMed, and MedicLatina. The keywords used were extracted from the components of the research question: 'patients,' 'intervention,' "comparison" and 'outcome' (PICO), using the Health Sciences Descriptors (DeCS/Mesh) to form the following search equation with Boolean operators: ('quality of life') AND ("nurses") AND ('shift work schedule') which was applied in all databases except PubMed, where we used (('Quality of Life'[Mesh]) AND ('Nurses'[Mesh])) AND ('Shift Work Schedule' [Mesh]).

Data extraction

Two masked researchers (CP and MC) read the title and abstract of the articles available due to the database search to select eligible articles. Subsequently, the same two masked researchers used the STROBE checklist to conduct a critical reading of the selected articles.⁽¹²⁾ Once the individual decisions had been made, their inclusion was determined by consensus, considering that they contributed to answering the research question posed and fell within the eligibility criteria.

RESULTS

Twenty-one studies were identified in the databases, of which five were eliminated for duplication and one for lack of abstract. The titles and abstracts of 15 articles were analysed, of which 9 were excluded. Two studies were not available in full text, so they were requested via email, but no response was obtained. Six full articles were analyzed, of which one was excluded for not meeting the inclusion criteria, leaving five articles available for this review (figure 1).

The five studies analyzed were observational in design (four cross-sectional and one descriptive). They came

from various European countries, such as Poland, Italy, Greece, Bosnia and Herzegovina, and Turkey (table 1).

The articles included consider the issue of quality of life in nurses working in a shift system. However, their results are heterogeneous and can be broken down into four categories: psychological, social, occupational, and physical.

Psychological. There is evidence of a greater association between shift work and the appearance of stress,⁽¹³⁾ anxious and/or depressive symptoms,^(13,14) greater mental workload, emotional exhaustion, fatigue,⁽¹⁴⁾ less possibility of self-control⁽¹⁵⁾ and/or strategies for coping with personal and/or work-related problems,⁽¹³⁾ and a higher incidence of Burnout in women.⁽¹⁶⁾

Social. It was found that nurses who work in a shift system enjoy their daily activities less⁽¹³⁾ and have greater disruption of family functioning,^(14,15) impairing the development of motherhood/parenthood⁽¹⁵⁾ and causing less satisfaction in this area. On the other hand, it is stated that there is less development and satisfaction in social life⁽¹³⁾ and less social support from co-workers and/or bosses.⁽¹⁵⁾

Work-related. Nurses working in a shift system show lower work efficiency,⁽¹³⁾ maintaining the need to change working conditions as these are worse than in other work systems. Furthermore, it is stated that this work system hurts the employee's health.⁽¹⁵⁾ Despite this, they are the ones most satisfied with their remuneration.⁽¹³⁾

Physical. Nurses working in a shift system are associated with heart palpitations, nervousness, stomach tension, and the development of sleep problems, with men consuming more sleeping pills than women.^(13,14,16) Women perceive their state of health to be lower than men, which leads to a lower perception of health-related quality of life.⁽¹⁷⁾ In addition, there is evidence of greater physical strain, diurnal dysfunction, and feelings of insomnia during day and night shifts, where the duration of this feeling is longer for those who work more than 40 hours a week.⁽¹⁶⁾ They are also more likely to be overweight, have total abdominal fat, have a sedentary lifestyle, and have a higher probability of developing cardiovascular diseases after 5 years of shift work.⁽¹⁴⁾

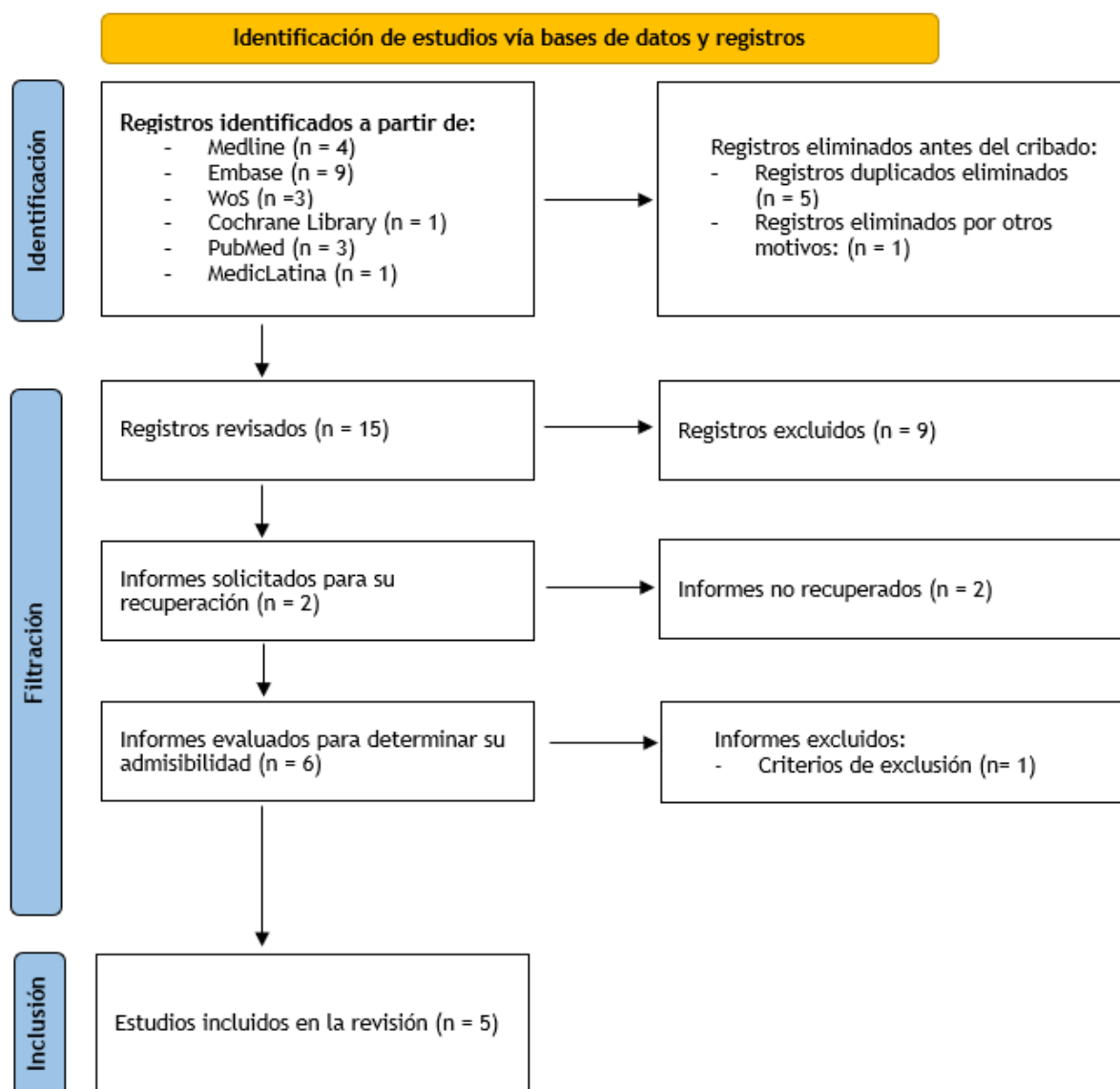


Figure 1. Flow chart

Table 1. Characteristics of included studies

Author/Year/Country	Design	Target	Sample	Results
Ljevak I. 2020. Bosnia y Herzegovina. ⁽¹³⁾	Cross-sectional comparative study	To assess whether shift work significantly affects the psychosocial functioning and quality of life of hospital nurses in Bosnia and Herzegovina.	157 nurses (135 women and 22 men), divided into 2 groups, where the first group comprised 80 people working a 12-hour day shift, 12-hour night shift, while the second group consisted of 77 participants working a 7-hour day shift.	Increased stress, reduced coping skills and decreased levels of enjoyment of life were demonstrated in nurses working shifts. In addition, increased anxiety, psycho-organic symptoms, sleep disturbances, reduced social functioning, and reduced family and leisure time. In contrast, there is greater satisfaction in terms of remuneration.
Misiak B. 2020. Polonia. ⁽¹⁵⁾	Cross-sectional study	To assess psychosocial working conditions and their relationship to quality of life in nurses with many years of experience in the profession.	523 nurses over 40 years of age, working in acute services, hospitals, specialised outpatient care, primary health care and others who agreed to participate.	Shift work was associated with a worse perception of psychosocial working conditions in almost all domains. The strongest correlations were between the well-being scale and the assessment of quality of life in the somatic and psychological domains.
Turchi V. 2019. Italia. ⁽¹⁷⁾	Cross-sectional study	i) To assess the differences between the quality of life of nurses working at night and the quality of life of the general population. ii) To study how some characteristics of the study population may influence perceived health.	197 nurses working night shifts on a regular basis.	Nurses are in poorer health than the general population. Married nurses who work night shifts are at higher risk of family stress, with shift work being seen as a factor that is not conducive to parenthood.
Vlahoyiannis A. 2022. Grecia. ⁽¹⁴⁾	Cross-sectional study	To investigate comparisons between rotating shift and morning shift healthcare workers using objective and subjective multidimensional approaches.	40 nurses (20 on rotating shift and 20 on morning shift), employed full time, over 25 years of age, with at least 5 years of experience in the morning shift.	The rotating shift group had higher mean BMI and total and abdominal fat and lower SF-36 scores. All nurses showed reduced levels of physical activity. 53 % of the nurses had poor sleep.
Molu B. 2023. Turquía. ⁽¹⁶⁾	Descriptive study	To examine the chronotypes, levels of social jet lag, sleep quality and quality of life of shift nurses.	134 nurses over 18 years of age, volunteers, with 1 year of alternate 8-hour shift work with at least 2 consecutive night shifts.	Women's burnout levels were found to be statistically higher than men's. Nurses working in emergency and intensive care units experienced greater fatigue, sleep latency and daytime dysfunction compared to nurses working in normal services. Nurses working in emergency and intensive care units experienced greater fatigue, sleep latency and daytime dysfunction compared to nurses working in normal services. The study found that nurses working day + on-call had greater daytime dysfunction than nurses working on permanent duty.

DISCUSSION

This review aimed to compile literature on the quality of life of nurses working under a shift system. The results were organized by categories according to relevant aspects of quality of life, where the psychological, physical, social, and occupational dimensions stand out. They show evident resentment in the lives of those who work in a shift system and confirm that this type of work negatively affects the quality of life.

The possibility of burnout is an increasingly common reality in nurses and, therefore, not only has personal repercussions but also directly affects the quality of care and institutional health goals.⁽¹⁸⁾ Poor quality of work life leads to job dissatisfaction, which translates into high absenteeism and staff turnover. It can lead to physical and mental health problems in employees, which increases costs to organizations.⁽¹⁹⁾ The nurse is responsible for providing quality care by balancing elements of efficiency and effectiveness, which are essential to delivering health care.⁽²⁰⁾ It is important to note that the majority of nursing professionals are women, exercising two or more roles (mother, wife, carer, etc.)⁽²¹⁾ This is related to the results found since it is evident that women have greater Burnout, as well as evidence that working conditions in shift systems are considered adverse, maintaining the latent need for changes in them. In addition, it is stated that nurses subjected to this type of work have greater sleep problems, increasing the feeling of drowsiness during work shifts, which can affect patient care. It is also associated with palpitations, nervousness, anxious and/or depressive symptoms, and stomach ailments related to stress and work. A study carried out in Chile on the working conditions experienced by nursing professionals mainly points out precariousness, work demands, work organization, and limited resources, emphasizing the need to generate protection and care strategies for workers.⁽²¹⁾

In 2020, a study was published that analyzed the factors associated with the quality of working life according to the theory of organizational behavior. It showed the importance of maintaining an adequate quality of work life, positively affecting any organization, be it companies, governmental institutions, or educational and service organizations. Mainly in health institutions, due to their organizational style, it is required to ensure a climate that provides a sense of value, emphasizing their attention on factors such as teamwork, concern for people, work facilitation, peer communication, participation in decision-making, user/doctor relationship, external customer service, and compensation.⁽²²⁾

Another study in New Zealand exposes generational relevance in nurses, addressing the maintenance of work and non-work life, emphasizing that the importance of performance is more associated with older generations. The implications of the work environment are also discordant among those with different role expectations. Nurses report wanting more time for family life and out-of-hours activities, yet their roles' physical and emotional demands leave them constrained.⁽²³⁾ This is also consistent with the findings of this research since there is evidence of a deterioration in the quality of family and social life, where even the development of motherhood and fatherhood are affected by the shift work system, causing problems within families and greater dissatisfaction in these areas, leading to nurses reporting less enjoyment of daily activities, contributing to a diminished quality of life.

Limitations. This review is not without limitations. Firstly, research on the quality of life of nurses working in a shift system is scarce, which makes it impossible to generalize the available results on this subject to the different working realities of these professionals. In addition, quality of life encompasses several aspects that can affect well-being and work performance. In Chile, on the other hand, as far as we know, no studies show the reality of its professionals in any of the spheres considered in this paper.

CONCLUSIONS

The quality of life of nurses working in a shift system is a subject that is little studied, so there is little information on the subject. However, with the limited evidence available, it can be concluded that the quality of life of these professionals is diminished due to the stress involved in their work, affecting the extra-occupational dynamics and their physical and mental health. This review opens the opportunity to explore further to generate strategies that improve working conditions and promote an optimal quality of life to deliver the best care. It raises the question of whether the health profession is becoming unhealthy for the people who work in it or whether remuneration alone can compensate for the damage that the system produces.

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CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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