

Impact of shift work on paramedics and firefighters from a physiological, psychological and safety/quality perspective

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Background

Firefighters and paramedics are crucial in our society because of their role as first responders and coordinators between different lines of care [1]. However, these professionals are subject to a series of factors in their daily work that impact on their well-being: the nature of their work, organisational and professional factors including workload, working in shifts and lack of recognition [1]. Among these factors, a key element is the work schedule, which has a direct impact on staff well-being. Workers in those fields work in term of shifts, meaning long periods of time. The manner in which they are organised is critical and is therefore a major public health concern. It can be a cause of psychological distress among paramedic staff [1,2], which can lead to a decrease in professional performance and quality of patient care [3]. The aim of this research was to conduct a literature review to assess the most appropriate shift for paramedics and firefighters in terms of physiological, psychological and safety and quality of care concepts.

Materials and methods

A systematized narrative review search was conducted to look for articles in the following databases: Embase and PubMed. Searches were limited to meta-analyses and systematic reviews with no defined period. Other types of recent articles from January 2020 to March 2022 were also included to obtain the latest studies that may not have been included in the meta-analyses and systematic reviews. Articles were selected based on inclusion/exclusion criteria and qualitative assessment in Covidence software. They were either in English or in French.

Results

A total of 12 articles met the inclusion criteria out of 130 publications including systematic reviews and cross-sectional studies. Different breaks were studied and compared: 8 hours, 12 hours, 24 hours, 48 hours, 6-9 and 21-day work cycles. Different aspects allowed the comparison of these shift periods: physiological impact, psychological impact, safety, and quality of care. The different articles were classified according to their themes to investigate each of the variables.

Conclusions

A multitude of international literature exists but little of it provides solid scientific evidence to determine the ideal shift periods for paramedics and firefighters. Depending on the research focus, some shift periods seem more favourable than others. From a safety and quality of care point of view, 8-hour shift periods seem to be preferred. They are also strongly recommended when sufficient recovery periods are not guaranteed. From a physiological and psychological point of view, shift periods of 24 hours with 72 hours of recuperation appear to be the most appreciated. Full recovery periods, naps during breaks and insomnia prevention programmes are recommended.

References

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