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Occupational stress management interventions among healthcare workers

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Abstract---In the healthcare workplaces numerous sources of stress come into play; from inconsistent management, to conflicting demands, work overloads, ambiguous roles, time pressures and unachievable job targets. Instances of it are interventions that, consistent with the principles of MSEL-based stress management, provide workers with tangible coping devices and self-care strategies, but at the same time place an emphasis on interventions that manage and overcome some of the most dangerous and sustaining sources of work related stress. This last aspect includes psycho-education about how courses based on mindfulness can improve physical, emotional, psychosocial and spiritual well-being, and about how these interventions are more likely to be effective if they are combined with interventions on the work organisation.

Keywords---healthcare, interventions, management, stress, workers.

1. Introduction

Occupational stress adversely affects mental well-being and job satisfaction, diminishing the resources necessary for patient care. Stress management interventions are crucial for improving job performance and overall well-being. These programs aim to enhance worker wellness and can be categorized as no-cost and low-cost activities or planned actions. No-cost activities include management practices, safety training, social support, job rotation, and ergonomic designs. Planned actions feature long-term stress awareness programs, workshops on resilience, mindfulness, bio-feedback training, relaxation exercises, and psycho-educational interventions. Integrating mindfulness and psychoeducation with environmental and management approaches has proven more effective. However, research lacks on the combination of individual and organizational interventions that could bolster both personal and external resources. Person-targeted interventions focus on individual stress management, like cognitive behavior therapy, while organization-targeted strategies adjust work environments by modifying schedules or improving communication. Evidence indicates that person-targeted interventions alone have limited effectiveness on reducing stress and depression, whereas organization-targeted approaches show no significant outcomes. Events like Australia's bushfires present opportunities for testing broader stress management strategies. Additional approaches could involve fostering supportive networks, decreasing job demands, or enhancing job control. The scientific community must investigate various combinations of interventions to tackle the complex nature of job-related stress. The positive impacts of workplace stress management interventions underscore the need to address stress-related issues, promoting further research and tailored strategies for different work environments.

Methods

A review of the literature was undertaken using four electronic databases. Keywords were selected from terms identified as most frequently found in the literature using the keywords and Medical Subject Headings (MeSH) terms "Healthcare Workers", "Stress, Psychological", "Workplace", "Intervention Studies", "Prevention and Control", "Practice Guidelines as Topic", "Meta-Analysis", "Guidelines", "Practice Guidelines", "Models, Organizational", and "Psychological Distress". The keywords were combined by using the Boolean operators of OR and AND. Searches were restricted to the past 10 years and were limited to primary studies with the publication type "Systematic Review" and the language setting "English". The references cited in the reports were reviewed to identify additional studies for inclusion.

Conclusion

The management of stress is important to promote health and improve the quality of the services. The issue of stress management is necessary for all professionals places, but it is particularly important in healthcare workplaces. In fact, the management of stress must be properly considered because the health care professional job is a big stressor condition. Therefore, it would be essential to plan appropriate interventions in hospital setting. Occupational stress can be managed through interventions on those factors that can induce it. According to the model of Karasek, two kinds of intervention can be planned, so that it is possible to act on job demands or to influence decision latitude. Therefore the interventions that

have been selected are grouped in two macro blocks: the first section is focused on individual resources, including relaxation techniques, courses based on mindfulness, psychoeducation and post traumatic debriefing; the second cluster of interventions is based on environmental and management. Environmental intervention can improve the physiological state of the worker and reduce his/her stress level, while the management intervention is essentially linked to the relationships between workers, supervisors and management, and it concerns the prospect about the worker position and control. Support can be viewed as a resource that allows to cope with stress (Chiappetta et al., 2018). In the healthcare field it is possible to outline the need to investigate on the effectiveness of stress management interventions combining those that enhance worker's individual resources with those that increase the external resources. On this background the first research aim of the present paper is to explore the available evidence about the effectiveness of stress management interventions among health care workers using mindfulness and psychoeducation. Another work goal is to better understand the effectiveness of interventions that aim to modify these work characteristics on the stress of health care workers. In the light of previous observations, the last research aim of this paper is to undertake an analysis of health care workers occupational stress level and their perception on the work organization in a health care setting that considers a broad perspective on several stressors and resources that can be managed at workplace.

2. Understanding Occupational Stress in Healthcare Workers

Healthcare workers are encountering hostile and worrying scenes nearly regularly. Healthcare jobs are among the most demanding jobs. Even though exposure to demanding situations and experiences is more common in the psychiatry and emergency units because clinics and emergency units are working 24 hours per day and because of organizational changes, it has influenced on other units also and they move towards to work 24 hours. Night shifts turn the body to a dangerous state and weakened. It can cause sick individuals to forget drugs or not use it properly or take more drugs than it should be taken. This is exactly a medication mistake. The handlings with such patients also have a high danger since they show knife etc. as self-protective tools. They can not control what they do. The tension that aroused in such an event has made the personnel traumatized and sleepless until they are retired. Night shifts in many states cause that such personnel support the assistance which is illegal. The inadequate administration and hesitating to stop this causes the develop of a habit (Zeinolabedini et al., 2022). This policy caused an increase in unsafe working conditions in more and more workplaces and workers were exposed to increasing risks, injuries, diseases, deaths and psychological harm. These unsafe working conditions also began and are becoming a stumbling block to the goal of improving the quality of life and as professional healthcare providers began to raise concerns about the health of healthcare workers. Work-related stress is now recognized as a problem that is both globally and national and is directly related to the health of health care workers (HCWs). Increased competitive pressures including market-driven reforms and attempts to reduce public sector costs have seen organizational change in many health services, largely led by restructuring. Organizational change has led to the creation of new working conditions for HCWs.

3. Impact of Occupational Stress on Healthcare Workers' Well-being

In the demanding and crucial field of healthcare provision, it is globally accepted that the workforce is subjected to daily increased work demands and job related strains. Workplace related stress can affect the physical and emotional well-being of health professionals. This may restrict their efficiency and effectiveness in assisting others, lead to absenteeism and early retirement or even medical issues both mental and physical. At the same time, it may have a negative impact on the quality of employees' overall standard of living. Health professionals are subjected to several stress factors on a daily routine in their workplace. This stressful state may be the outcome of recurrent negative experiences emerging from the physical, psychological and/or the social environment.

Several researches have proven that under this light health workers and nurses in particular are developing professional burnout syndrome. According to the literature the rates of burnout syndrome in certain specialties of healthcare provision are extremely high. This disorder is characterized by feelings of inefficiency and fatigue (VT), usually in combination with reduced professional self-esteem and negative attitudes to work (EE), along with emotional exhaustion, mostly elicited by containing excessive psychological demands (Koinis et al., 2015). However, these symptoms are representative of the nurses suffering from burnout and, in general, not all health practitioners follow the same stress pathways.

4. Common Occupational Stressors in Healthcare Settings

The workplace stress in healthcare workers (HCWs) is a significant concern in occupational health. Due to a variety of organizational and structural changes in healthcare settings, work-related stress as a common risk factor has become challenging issues in occupational health. A change in organizational structures and processes is expected to create new working conditions, job demands and stressors. The aim of this article is to explore and identify perceived job demands that Iranian HCWs experience as stress. A qualitative method was used with focus group discussions. Healthcare specialists (34) in three general hospitals affiliated to Tehran University of Medical Sciences, Iran, participated in six focus groups. The findings were grouped into four major categories of job demands: (a) increasing demands for quality of care and Job enrichment, (b) intensification of job requirements, (c) role demands, (d) ineffective support and contradictory organizational policies (Zeinolabedini et al., 2022).

Exposure to stress is a significant concern, which can lead to more serious issues such as compassion fatigue and burnout. These challenges are often faced by both military health professionals and their civilian counterparts who treat combat veterans with high rates of emotional trauma symptoms and psychological disorders. As a result, various mental health interventions are offered to help these healthcare workers cope with the difficult side of their work such as high risk of secondary traumatic stress. Despite the large variety of interventions, practitioners' emotional health under such working conditions is at risk and efforts need to be focused on seeking out those interventions that are most effective in preventing compassion fatigue and emotional burnout. Earlier studies suggest that individual treatments may be less effective for traumatic stress's negative sequelae compared to group treatments. Studies show a broad

spectrum of gender differences: women typically feel as if they are under greater stress, use more mental health services, perceive caring to be a female job, are over-worked and under-valued; and yet, are less frequently promoted to managerial/superior positions within HCWs. In comparison to men, women are more likely to change job or leave a job due to stress and burnout. Gender differences have also been noted in coping strategies: women are more likely to report using healthy coping mechanisms, whereas men are more likely to avoid addressing the issue altogether. With an increasing number of fatal injuries, violence and aggression against HCWs are an essential issue associated with stress, affecting the health of these workers, leading to administrative problems such as a rise in absenteeism and a high conversion ratio of personnel. Nevertheless, gender differences in perception of stresses within these settings have begun to be explored. Little is known of the extent to which gender differences may exist in mental health-seeking behaviours for managing the stress that results from working directly with trauma patients on a long term basis (Kang, 2016). The objective of this research is to firstly ascertain which of the factors above could be placed under the umbrella of mental health-seeking behaviours and; secondly, using military doctors as a case study, elucidate whether there are differences in such strategies according to gender in a sample where the ratio of men to women is higher than the UK average.

5. Evidence-Based Stress Management Interventions

The most common stress management interventions proposed for healthcare workers were based on mindfulness (Chiappetta et al., 2018). In the work settings, occupational interventions are fundamental to enhance workers' wellbeing and reduce job-related stress. It is recommended to combine programs based on mindfulness and psychoeducation with environmental and management interventions. This specific job-related stress model underlines the importance of the management of the stressors. The stress can be managed by environmental changes, that is, by promoting interpersonal communication, smart working, breaks from work, shifts, wellness programmes, and by enhancing skills to cope with it such as conflict management and time management. According to the Demand-Control Model, job-related stress should be managed by acting simultaneously on the demand and on the latitude of the job. An increase of the job demand should enhance job strain, flatten the learning curve, and reduce the worker's willingness to work. Instead, an increase in the decision latitudes should foster the involvement of the worker in the job, reduce emotional effort, and diminish the time pressures. An effective solution to reduce job demand is to implement interventions focused on the most critical points, providing less work and slowing down the production speed. An effective solution to increase decision latitude is to act on participation, involving workers in the decision-making process. With the same purpose, an optimal solution is to realize a more comprehensive model of intervention addressed to the organization of the work. From one side, it is important to structure clear job roles, while from the other side, it is fundamental to develop effective leadership. This must guarantee a consistent management, a recognition of the effort, and a balance between the demand and the latitude of the job. In a study conducted on healthcare workers, the systematic review of randomized controlled trials investigating mindfulness and mindfulness-based stress reduction interventions found a significant positive effect on stress. Beyond stress, among others, such interventions significantly

impact on conflicts between work and private life, emotional exhaustion, and depersonalization. Nonetheless, a positive trend was detected in anxiety and depressive symptoms.

6. Individual-Level Interventions

Because of the detrimental effects of stress and exhaustion on the well-being of healthcare providers and the quality of patient treatment, research on effective interventions is essential (Romani & Ashkar, 2014). Individual-based interventions are expected to include exercise interventions, stress reducing activities, and social interventions that focus on enhancing individual attitudes toward oneself. A low-cost intervention method likely to comply with the time constraints of busy healthcare employees would be anxiety directly at the workplace.

To date, research in busy healthcare organizations has considered stress and exhaustion in a generally holistic manner, but few research have analyzed the efficacy or outcomes of specific individual-level interventions that can be made in such environments (Kang, 2016). The article discusses a series of stress management initiatives that were implemented at a military clinic over a 2-year span and associated changes in panic and strain over the Chunjae traditional yuletide season.

6.1. Mindfulness-Based Stress Reduction

Occupational stress in healthcare workers is becoming a major issue worldwide; it is recognized that exposure to psychosocial risks at work has significantly increased among a wide range of health workers. This has led to an increase in work absenteeism and turnover, decreased the quality of care and eroded the morale of health workers. Stress prevention and workers' health promotion, as well as interventions that aim to manage the exposed workers, are imperative. Training of workers have been proven as effective interventions to reduce and manage stress in hospital workers. This suggests that enhancing workers awareness about possible stress factors in the organizational context might empower them to respond more consciously to stress. Also, individual stress management trainings, dealing with cognitive and behavioral coping strategies, goal-setting and problem solving techniques, and time management and relaxation techniques, seem effective in managing hospital job stress. Various other occupational stress management interventions, mainly cognitive-behavioral were also tested, alone or in combination, community based, were found to significantly reduce job stress and were judged as largely successful by health workers. Given the relevance of the problem and the dearth of information, rigorous evaluation of stress management interventions aimed at health workers needs to be conducted, comparing different approaches and considering mediating factors.

6.2. Cognitive Behavioral Therapy

Health workers can be exposed to severe psychological stresses because of their occupational conditions. Controlled stress can be a positive and stimulating phenomenon for human beings promoting creativity and self-actualization. However, uncontrolled severe or persistent stress leads to harmful physical and psychological consequences (Hosein Fadaei et al., 2020). Occupations can be a

major source of stress and can have serious effects on health through job stress. Occupational stress is defined as a psychological, emotional, or physical response of employees to elements of the work environment. It is a set of feelings arising from the intentional or unintentional exposure to physical, emotional, and interpersonal situations (C. Mengin et al., 2024). Healthcare workers are exposed to a higher risk of stress due to conditions such as the nature of the job, and long working hours. In healthcare settings, level of stress is higher among nurses because they are the professionals who have the most intense interaction with the patients than other units of the health sector. Besides, intense unexpected situations urge the exacerbation of the occupational environment at the highest stressor level. All these high-stress conditions can bring a fast fatigue, decrease in motivation, intention to leave the job, and overall depression and anxiety levels.

The increasing expectations of the communities and the possibilities of medical science present higher burdens on intensive care units (ICU) nurses working in these units. Because of job characteristics, ICU nurses are exposed to extreme stress and anxiety. Besides, stress has adverse effects on the psychological and physical health of individuals. During the job, negative effects like chronic fatigue, depressive disorders, anxiety, sleeping disorders, mood changes, and occupational accidents can be seen after a while. It's important for nurses working in this service to have a positive perspective on life; mind and body are in balance, and they are mentally strong and resilient to face stressful situations. As a general strategy, organizational support is essential for reducing stress through shaping job conditions. It is suggested that governmental and hospital authorities should organize regular stress management training and exercises for nurses who work in ICUs. Healthcare unit administrators can organize stress management programs for ICU nurses using practices like relaxation, positive imaging, suggestion, and meditation techniques. In order to ensure job continuity, deep and professional relaxations, local corporal therapies, programs focusing on physical conditioning, and psychosocial structures can be useful to ensure job continuity. While providing organizational support in stress management for ICU nurses, stress management interventions should be diversified and enhanced. Cognitive behavioral therapy (CBT) is considered an efficient means of coping with and dealing with anxiety concerns and stress levels. A critical review of the literature reveals that CBT practice is more effective for group rather than individual cases. Treatment of occupational stress with this therapy continues between six and ten weeks. On the developing suggestions, healthcare institutions and administrators are proposed to organize CBT practices and exercises by RNs to reduce stress levels.

7. Organizational-Level Interventions

Occupational stress among healthcare workers has become an area of concern due to its long-lasting, devastating effects on the daily productivity and quality of life. Health care is almost a unique domain as workers face aggressive behaviour, high workloads, and emotional demands aside normal stressors (Bhui et al., 2016). It is actually important to detect sources of stress and improve working conditions in health care services, for employees' better mental health and for the quality of health care delivery that is directly related to patient safety and patients' mental health.

Lowered productivity is mostly due to high levels of anxiety and fears about the malpractice. These are especially observed among nurses, gynaecology and anaesthesiology personnel. In addition, malpractice behaviours sometimes also leads to social phobias. Night shifts, overtime, missed breaks, high patient load, hospital noise, dealing with ADLs, patient demands are other reasons for anxiety and similar complaints. Main causes of dissatisfaction are low prices for the services, blocked career promotions, overwork leading to decrease in quality and finally not enough possibilities to recover about physical and mental workload. Besides, high tuition fees for the University Hospital education would not be consider as inevitable.

Human beings are capable of managing deadlines and stressful conditions, also working under pressure can lead success or innovation. However, chronic periods of stress are catastrophic. It ruins mental health by leading diseases and shortens life spans. Different sides of the services, intense work load, administrative duties and regulations are unable to be handled for a long time. Institution related interventions are more efficient when the problem is about these subjects.

7.1. Workplace Policies and Procedures

International research shows that employees do not typically use professional services to manage stress and that many have taken time off work because of stress. The focus of employees' used strategies (n=26) was on fellow workers and immediate social environments (including management styles, communication issues, relations in the workplace), with little regard to professional help, as well as practical or legal changes at work. Thus, devising effective preventative or responsive services requires a broad analysis of perceived symptoms, sources, and consequences of stress, as well as the understanding of what employees perceive as effective. Although the immediate social work environment was crucial in maintaining or resolving the issue, systemic changes were also identified, such as adjustments in workplace policies and procedures. Informed changes in workplace policies can offer inexpensive and effective improvements to promote mental health (Bhui et al., 2016). Lower stress was linked to better awareness of workplace procedures, particularly in grievance and discipline procedures. This suggests that, beyond only improving well populated existing measures, consideration of more general workplace policies may provide greater capture of achievements in promoting mental health. The omnipresence of specific triggers of undue stress across different work sectors suggests that future health and safety bodies could enforce more general compliance relating workplace policies in the context of the broader legal framework.

7.2. Team-Based Interventions

Stress among health care staff can have negative implications for patient safety and quality of care. In response, many organizations have implemented stress management interventions. It is not always clear, however, which interventions are most beneficial. A review provided a synthesis of the empirical research on stress management interventions for health care staff. Specifically, this review re-examines that literature to explore which interventions were more effective at reducing that stress. This review used the same definition of staff stress, namely undue pressure on workers that can lead to deleterious outcomes. A total of 18 experimental or quasi-experimental studies were analyzed once more to identify

which interventions were most effective (Milanovich Costar & K. Hall, 2020). The majority of studies involved direct care staff (i.e., nurses, physicians, aides, etc.) and were conducted in the United States. Nonetheless, this is the first review to examine which interventions were most effective at reducing stress.

8. Technological Interventions

The World Health Organization (WHO) defined workplace stress in the year 2012 as a condition that results from workplace stressors and leads to physical, emotional, and cognitive disorders and diseases. These disorders lead to reduced productivity and performance, increased absenteeism, sick leave, a higher turnover rate, and reduced worker satisfaction and well-being. The workplace is an optimal setting for intervention measures to prevent stress-related health problems and promote health and well-being. A distinction is often made between individual and organizational occupational stress management interventions. However, research shows that such interventions are often ineffective, or the effect is minimal. In recent years, new technologies have allowed researchers and organizations to shift from traditional to technology-mediated interventions. There has thus been a shift from traditional to technology-mediated interventions (Paganin & Simbula, 2021). The workplace use of digital health interventions has increased. New technologies allow for a wide range of digital health interventions of the workplace. This includes computer- and Internet-based interventions and interventions delivered via email, applications, or other mobile devices. Mobile health is only a subsample of digital health, which is sufficient, or exclusively delivered via mobile technologies. These digital health interventions have been established in various domains: Fitness- and nutrition-related apps; Apps for monitoring health conditions, such as diabetes or hypertension; computer programs or apps for monitoring mental health, for example, for burnout, stress, anxiety management, or education. Nonetheless, the relevance of such interventions in the occupational setting has received a relative lack of focus thus far. This is surprising because job stress is the most frequently reported occupational health problem in the EU, with around one sixth of the working population being subjected. Therefore, mobile adaptations of these promising traditional workplace interventions could be a reasonable next step. Though multilevel interventions offer such promise, the remaining research on this topic is sparse.

9. Conclusion and Future Directions

Background: Work related stress is gaining recognition as a major challenge to the well-being of employees. Chronic and prolonged job stress is a common side effect of the work of healthcare professionals. This has led to a rise in the incidence of many lifestyle related diseases, absenteeism and mental health issues. Occupational interventions must not only focus on the individual worker, but there is increasing evidence that, sustained changes are more likely to occur if programmes aimed at the individual workers are combined with programs based on psycho-education and reorganization of the workplace itself (Chiappetta et al., 2018). A combination of it is intervention that strengthen the individual resources of workers with it is intervention that increase the external resources available to the staff seems to be more effective in reducing work-related stress.

Discussion: The model of Dhingra and Manocha offers a way to understand that effect, outlining how stress, especially when prolonged, jeopardises the personal resource of the workers to effectively meet the job-related demands. Moreover, Dhingra and Manocha indicate that the management of stress, in terms of environmental changes, is fundamental here, thus altering the job-related sources of stress, such as organisational disruption, unsafe practices, high demand job roles, bullying, lack of job control or job security, strenuous tasks, shift work, etc. Current literature indicates a strong focus on the work environment and on the way the management can support a sense of safety and control amongst workers (Guerra et al., 2022). By bringing in insights from the MSEL model, the model by Dhingra and Manocha helps adding the dimension of reducing job demand and enhancing decision latitude.

In the healthcare workplaces numerous sources of stress come into play; from inconsistent management, to conflicting demands, work overloads, ambiguous roles, time pressures and unachievable job targets. Instances of it are interventions that, consistent with the principles of MSEL-based stress management, provide workers with tangible coping devices and self-care strategies, but at the same time place an emphasis on interventions that manage and overcome some of the most dangerous and sustaining sources of work related stress. This last aspect includes psycho-education about how courses based on mindfulness can improve physical, emotional, psychosocial and spiritual well-being, and about how these interventions are more likely to be effective if they are combined with interventions on the work organisation. There is an increasing recognition that supporting the well-being of healthcare professionals in the form of training and free sessions to reduce job-related stress represents part of a larger self-care strategy for healthcare professionals. At the same time, modifications to the work place lead to conditions where healthcare professionals can provide high quality care to their consumers.

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