



Occupational Stress Management Interventions among Healthcare Workers: Review Provided By: Radiology, Health, Clinical Dietitian and Social Worker

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Abstract

1. Introduction

Today's organizations face constant change due to globalization, leading to competition and potential conflicts between employees and managers. One key area of concern is workplace conditions, as stress is the adverse reaction to excessive demands. Many organizations are investigating ways to minimize stress for their employees. Among occupational groups, healthcare professionals are particularly affected due to the critical nature of their work, often dealing with life-and-death situations and experiencing significant emotional turmoil. Therefore, managing stress among healthcare workers is crucial to improve service quality and ensure their mental health. Stress adversely affects their skills, diminishing their abilities and overall management qualities. Healthcare employees constitute about 5% of the population, significantly impacting the healthcare system. Reports indicate that approximately 4% of hospital expenses arise from workforce costs, with 60% of that being salaries for healthcare staff. Consequently, the stress healthcare workers endure is essential to consider for both job productivity and organizational efficiency. Workplace stress management is a collective effort to help employees cope with work-related stress and requires institutional intervention. This issue affects not only individual workers but also the entire organization and the quality of patient care.

Methods

Occupational stress is a psychological state which arises when workers perceive that work demands exceed availability of personal and professional resources. In the medical and care sector, job-related stress can also depend on the link between professionals and users, seeing



the difficulties and discomfort of their well-being or their loved relatives. It emerges the need to experiment useful measures on a large scale that can be used in healthcare contexts, avoiding the problems of convexity that are often presented. Three aims were defined: to provide a stake on current stress management interventions for doctors, nurses, and other health workers using mindfulness in healthcare environments that favor their use and effectiveness; collect and critically review the existing studies on this topic; understand the effects of stress management interventions based on mindfulness on various aspects of psychological and physical well-being of health professionals. They then aimed to identify the most effective interventions received in order to guarantee the well-being of healthcare professionals, in a sector that is known to be already particularly stressful

Conclusion

The aim of the research is to understand which strategies should be promoted and which interventions should be avoided with the purpose of improve health workplace wellbeing. These results delineate that mindfulness and psychoeducation based programs, that need to be combined with environmental and management interventions, should be promoted. Management of stress, as based on environmental changes, smart working, shifts, breaks, and leadership, is part of the demand-control-support model. The job demand is referred to as stressors of workforce stress, denoting negative physical, psychosocial, spiritual, or environmental factors of a job. The job control is referred to as decision latitude at work. It is implied that staff is to be able to develop skills and capabilities by being amongst other things in charge of choosing their own pace and work activities. The job control denoted as the amount of decision latitude emerged by the job demand that can enhance the individual to control and manage the work demands. The support is indicated as the help provided by a leader or colleague. It is related that the support can be instrumental support, psychosocial support, and support concerning the meaning of work or task. The model can be effectively applied to the healthcare setting, where job factors are identified such as control in decision making and support from supervisors. Healthcare workers (HCW) must face to numerous sources of stress, such as inadequate and inconsistent management experience, ineffective job planning, inadequate and unclear delegation, conflicting demands from different hierarchical structures or coworkers, work overloads, unresolved issues, time pressures, unplanned tasks, system inefficiencies. At the same time, they must also face to stress linked to dealing with individuals' health upsets, often emergencies (Chiappetta et al., 2018).

1.1. Background and Rationale

This course will provide knowledge and professional counseling suggestions to practitioners on stress management and prevention techniques. The sections of this course include the necessity of stress management for healthcare workers, common stress sources for healthcare workers, early signs and symptoms of occupational stress, and effective stress management



methods. Though the course is important to manage and reduce stress, occupational interventions are fundamental in the work settings to improve wellbeing and reduce job related stress (Chiappetta et al., 2018). It may be important to combine individual training courses based on mindfulness and psychoeducation with environmental and management intervention, in a multidisciplinary approach. On the one hand it is needed to focus on people and study intervention that strengthen individual resources, on the other hand it is necessary to look at the work environments and study interventions that increase the external resources. These resources have been hypothesized in the well-known model of the demand-control-support model of workplace stress that describe the better outcome in terms of low work strain and high well-being where demands are low, decision latitude is high and social support is adequate. Both professional and organizational recommendations will be made in order to promote wellbeing in the working setting.

1.2. Scope of the Study

On the basis of the data, 22-50% of employees perceive stress in their workplace. Stress levels differ across occupational streams. It was less than 35% for the planners, managers, and executives, while it was between 55% and 60% for the skilled workers, plant and machine operators, and simple laborers. On the other hand, university hospitals is among the top-rated institutions in which employees most experience stress. Assisting other individuals in the maintenance of their health and recovery is a source of serious stress. The number of studies show that health employees face stress more than the other occupation groups. Health employees ranked the first among the groups heavily affected by the stress at work (Chiappetta et al., 2018). According to the satisfaction survey conducted among the healthcare workers in a state hospital in Turkey, the absence of the partisans was a risk factor for job dissatisfaction independent of the psychological negative states. Not accepting the right to strike for the employees in health services causes them to work under the intense stress caused by such conditions as workload, compulsion to work during the strike appointments, fear of legal sanctions, closure of room and institution by judiciary decision makes it difficult to reach the job breaks and food of the workers, alteration of the working standards, migration, and transformation practices applied in the health sector (Karimyar Jahromi et al., 2015). The stress levels and the risk of burnout syndrome in healthcare employees are higher compared with other occupational groups. Job related health problems are seen approximately 2.5 times more in individuals who cannot adapt to the stress, and also musculoskeletal injury risk is twice as much. These problems cause inefficacy and approximately 7% drop in the overall performance.

2. Understanding Occupational Stress in Healthcare

Healthcare professionals are exemplar models of employees trapped with the increased stress of today's fast moving and rapid changing working conditions and job surroundings. Stressed



employees in hospitals and caregiver receive intensified work pressure, exposure to high burnout and fatigue and undergo a number of mental and emotional health hazards (Koinis et al., 2015). Consequently, questioning the efficiency and quality of the work rendered to those in need. Medical staff under most of the jeopardy of occupational stress is usually the frontline of hospitals (i.e.: nurses and doctors employed in shifts, including emergency, anesthetists and ICU doctors, etc.). Still, personal pressure is quickly transferred among employees without any regard to consideration or classification of work duties. At the same time, occupation associated stress is transmissible among close coworkers. Usually, inadequate and failed work arrangements or staff ignorant to manage stress cause individuals to encounter greater danger. Therefore, it is agreed that stress is extended among a noticeable part of healthcare professionals. Amassed stress can further transform into psychosomatic deficient functioning and reduced capacity (Kang, 2016).

2.1. Causes of Occupational Stress

Occupational stress originates from a burden over an individual exceeding his ability to cope with. Occupational stress is a major public health problem during the 21st century (Zeinolabedini et al., 2022). So, work-related stress can be considered as a harmful physical and emotional response that occurs when there is conflicted matching between job demands and individual's resources. The excessive workload is the most common contributor of occupational stress for workers. It was generally accepted that occupational stress had significant adverse effects on the physical, mental and social health of workers and the effectiveness of the organization. Nurses as health care workers have an important role in improving the physical and emotional welfare of people. However, it is widely accepted that health care professionals face high amounts of stress in working because duties demand, such as caring about others' psychological problems. The sources of category of such problem have been reported. Trauma-related stress, occupational hazards, death and dying, infection and disease, work overload, behavior of the patients with health care professionals are the most frequently reported potential sources of stress. With the manual handling of patients, the risk of developing a musculoskeletal disorder such as chronic back pain increases. Monitoring patients and health care workers causes stress exposure due to excessive noise. It has been stated that stress exposure of health care workers is comparatively more than other worker groups due to encounters with chemicals used in such as the anesthetic and cleaning processes. Regular inspection and treatment of chemical substances used in health services are reported. The difficult working conditions and the need for more attention at work in health care workers are also noted as the additional sources of stress. Shift types and the duration of working hours cause inadequate rest and thus induce stress. The increased workload or the fear to make a mistake can cause stress to employees that need a lot of attention at work.



2.2. Impact of Occupational Stress

Stress is an unpleasant emotional experience correlated with psychosomatic events and leads to a series of health and psychiatric issues. Consequently, stress management programs have been developed and successfully implemented in numerous occupational organizations. It is possible to say that occupational stress is an inevitable consequence of today's working life. Stress is "the perception of a real or an imagined threat to one's integrity" (Karimyar Jahromi et al., 2015). Chronic job stress will result in well-being and self-esteem loss, lower job satisfaction, higher rates of injuries and accidents, absenteeism and turnover, and lower levels of output and service quality. Furthermore, long-lasting job stress is damaging in the development of psychological and somatic illnesses, including cardio-vascular diseases such as hypertension, hyperlipidemia, and Type II diabetes, as well as psychological signs such as anxiety, depression, exhaustion, manifesting in low mood and physical energy loss. Destructive effects of stress at the interpersonal level involve a higher frequency of anti-social behavior against organizational rules, such as aggression.

3. Existing Interventions for Occupational Stress Management

Healthcare workers are a high-risk population for encountering occupational stress due to job specificity requiring direct, continuous care provision, along with a stressful environment involving patients, families, and other healthcare professionals. As decreased self-efficacy or resource exhaustion can lead to low resilience to stress, the prevention and solution of stress altogether could benefit both healthcare workers and patients. Prior studies focusing on management interventions concerning occupational stress among healthcare workers have mainly been derived from case studies at single facilities, without the provision of the integrated programs. It is highly beneficial to identify existing interventions in these studies that can be applicable across diversely national or occupational health service systems, in a meta-analytic way or a systematic way, to certify the quality of their evidence and propose comprehensive knowledge regarding related management interventions. The efficient management of occupational stress might result in versatile organizational outcomes, such as job performance, job-related diseases, intellectual ensemble of a healthcare professional, service satisfaction with patients, or financial augmentation of the relevant institution. This paper aims to identify current evidence on the existing interventions for the management of occupational stress among healthcare workers through various facilities and to propose future endeavors on more comprehensive editions of them.

Burnout, as a serious outcome of occupational stress exposure, is highly prevalent among healthcare workers because of the nature of their work. As a result, poor job performance could lead to job-related diseases in patients, having disastrous effects on public health. An extensive effort for understanding and confrontation of the reasons of burnout among healthcare workers, all other than an intellectual ensemble that considered it as a feasible



issue served only by the employed person, will promote relevant specialists and policymakers to be more attentive in enhancing necessary changes. A comprehensive view of the burnout phenomenon is necessary. A number of systematic reviews or meta-analyses have been conducted on the broadly defined burnout phenomenon, namely job-related stress, among healthcare workers over the past decade. Some reviews or meta-analyses probed the association between specific stresses and burnout while others considered it as an outcome of numerous factors.

3.1. Individual-Level Interventions

Healthcare workers are exposed to several physical, chemical, and biological health risk factors and are at an increased risk of developing serious diseases such as tuberculosis (TB). Occupational stress, on the other hand, is intrinsically connected with the organizational dynamics of healthcare settings. Healthcare workers are human assets in any health system. They usually work under a broad range of potential stressors including machine care system policy, prolonged working hours, time pressure, work overload or under load, sleep deprivation or pre-sleep sleep disorder, gender, economic conditions, ethical, emotional, harmony or conflict relationship between employee and patient, and experiencing murder, and taking. Also, the nature of the job of healthcare workers itself is emotionally and physically demanding. In healthcare settings, stress is associated with high job demands, poor relationships with coworkers, a lack of clarity about roles and responsibilities, unmet expectations, a mismatch between the person and the job and such like. High levels of occupational stress and burnout have been associated with several negative effects such as impaired quality of care, increasing patient's safety incidents, poor professionalism, malpractice, and emotional exhaustion. Therefore, managing occupational stress of healthcare workers is important for healthcare systems to enhance the productivity and provide quality care to service users. Different types of intervention programs have been conducted to manage/workplace stress among healthcare workers (Romani & Ashkar, 2014).

Intervention studies have shown that both individual-level interventions and multilevel interventions are effective in managing stress. Individual-level interventions offer a customized approach to stress management, targeting the individual needs of healthcare workers. This study attempted to evaluate the effect of different types of individual-level interventions such as exercise, diet, medication, mindfulness, and behavior change techniques. Evidence suggests that such interventions have beneficial effects in reducing stress. For example, (Guerra et al., 2022) investigated whether an educational psychological co-intervention improved the quality of life in healthcare workers. Their study found that the psychological educational co-intervention improved the quality of life among the healthcare workers.



3.2. Organizational-Level Interventions

Cortina proposed a taxonomy according to which stress management measures can be divided according to the level of intervention (individual, group and organization) or according to the fact when in the course of a stressful transaction they are applied (primary, secondary/tertiary). In a review of the effectiveness of stress management interventions in healthcare work, the effectiveness of primary, secondary and tertiary stress management measures was tested. However, in the narrative synthesis, the effectiveness of such categories was assessed. Instead, the focus was on different possibilities for individual, group and organization-level interventions. Special emphasis will be put on studies conducted on healthcare workers.

Information searches were conducted in multiple databases, and the final search was conducted in February 2015. This narrative review covers articles published until 3 13 16. Articles dealing specifically with healthcare workers were included. Concerning the type of stress, only psychosocial stress was included. Therefore, only general occupational stress interventions or interventions specifically targeting harassment and violence in the workplace were reported. Only primary, secondary and tertiary interventions will be discussed further.

4. Effectiveness of Interventions

Occupational interventions represent a fundamental means of preventive actions in work settings to improve worker wellbeing and reduce professional stress (Chiappetta et al., 2018). Interventions must combine programs based on mindfulness, Relaxation, Psycho Education and Time York Organisation with actions concerning the environment and the management of stress. Work adjustments should take on the form of demands-changes or resource-changes and target different job characteristics. Moreover, it would be important to carry out further research about the effectiveness to investigate both the effectiveness when a combination of intervention that strengthen individual resources is used together with interventions to increase of external resources is applied. Similarly, interventions effectiveness would be investigated more also the dealing with the management of stress; these types of intervention are focused on alterations of the environment and can be seen as also preventive means. Finally, the evaluation of the effectiveness of interventions on managing work stress, combining elements of both individual strategy and change of work environment, minding on numerous sources of increased stress in the workplace of health care workers should be assessed more thoroughly. Courses based on mindfulness have been reported to help improve the physical, emotional, psychosocial, and spiritual well-being of those who practice. Mindfulness can be described as ‘the act of paying attention on purpose in the present moment and nonjudgmentally. Mindfulness interventions were recently considered in some studies as an important tool in training workers to manage stress, improve emotional competence, and increase compassion in the workplace. These programs should be combined



with actions concerning the organization of work in order to be as effective as possible for promoting self-care and quality of patient care.

4.1. Research Findings

Stress is an intrinsic aspect of work-related stressors of the nursing profession. Further research should be planned on the stress management interventions of comprehensive intervention methods, and a study on reducing the stress of nursing workers is necessary. Stress management including consulting and the curriculum strategy can be a solution to overcome the psychological resistance including the general stress responses of the nursing staff. Stress management strategy, developing personal stress techniques and techniques for strategies for controlling organizational pressures involve the design of psychological resilient staff. It is necessary to plan disaster procedures in advance, including filming to engage or in-vitro disaster training, after being in the position of a disaster situation. The assistance that was offered was the most effective support seen by the interviewees who filmed the training. Stress is an adaptive response to the demands of an individual organization (Chiappetta et al., 2018). Stressors exist in situations where physical or psychological pressure and stress conditions arise, and stress management is the process of managing stress or skills in a healthy way. In the case of the absence of a strategy to relieve or handle stress, the stress that is not handled becomes a factor that affects physical health. The development of a training course on stress management for work-related workers permits them to recognize the strain associated with the job. Additionally, it is important to provide stress management strategies.

4.2. Limitations and Gaps

In healthcare workplace numerous sources of stress can be observed, for example inconsistent management, conflicting demands, work overloads, time pressures, dependent on institution and family or conflicting priorities. Although maintaining good psychosocial conditions at the work is very important in everyday professional activity for quality of patient care, the focus of most HCWs is patient care not self-care. Courses based on mindfulness show the highest effect and level of evidence to manage and reduce stress. Based on the number of studies examined, this occupational interventions overview suggests that the course is more important in managing and reducing stress, which is not the work cases, willing and ability. Occupational interventions are fundamental in the work settings to improve wellbeing and reduce job related stress, on the contrary to psycho-medical and individual-based intervention. There is a need to deepen and enlarge the research and action on the best combination of intervention that strengthen individual resources (such as personal skills, capacities and focus on personal development) with the intervention that increase external resources in the working environment. Stress management interventions are defined as strategies that are used to reduce stress level and improve stress responses. The aim of



research is to explore the current state concerning stress management interventions for HCWs via mindfulness-based stress reduction. The workplace can be one of the most important places to minimize employee stress, e.g. the management of stress management such as environmental changes, flexible working, reduction in work hours, shifts, employment breaks, leadership. It refers to the combination of having little control over the work load with the possibility of change this situation in the work environment.

Mindfulness has an important role, which is the ability to be aware of the present moment with openness and acceptance. Few overviews or systematic reviews have been previously published that have analyzed the effectiveness of stress management interventions in terms of the reduction in job related stress and burnout among HCWs. However, those reviews have focused only on a limited spectrum of stress management intervention techniques, such as cognitive-behavioral therapy (CBT) or changes in the work management. To the best of knowledge, this is the first review to comprehensively assess the efficacy of the stress management interventions among HCWs based on mindfulness. Due to the selected conditions, there is a need for further research to confirm or exclude such effects. The majority of participants are midwives, nurses or physicians, which are the group of HCWs most at-risk of stress and burnout. The use of mindfulness is spreading within clinical practices, and an increasing number of courses on mindfulness are conducted within clinical settings. There is a need to deepen and enlarge the research and action on the best combination of stress management intervention strategies that can be viable tools consisting of a mindfulness course and interventions on the work organization in order to promote both self-care and the quality of patient care. There is evidence from other reviews that the impact of burnout and stress management interventions must extend beyond the individual and must be based on analyzing the administrators and the organization of work. A number of courses based on mindfulness has been proven to be effective, focusing on improving physical, emotional, psychosocial, and spiritual well-being. On the basis of other studies, can be stated that costs are a prevailing obstacle to put young healthcare workers in continuous training/on developing safety and health protection at work. Any intervention is more difficult to attend with irregular working hours, there is a need to plan the best timing and to simplify the access to courses, while maintaining the content of training (Chiappetta et al., 2018).

5. Conclusion and Recommendations

This meta-analysis suggests potential benefit in managing stress and occupational stress from a variety of different approaches, although effects are generally modest. The results provide some support for the approach of tackling stress on a variety of dimensions.

There are some promising approaches which have so far received relatively little research attention. These include physical approaches such as massage therapy, and new work organisation approaches such as increasing job heterogeneity. However, the difference



between observed effect sizes for different approaches is generally small, and the results do not support the view that one approach is clearly more effective than any other. There is a clear need for additional high-quality research to identify best practice in addressing occupational stress in healthcare staff.

In conclusion, these studies suggest that while mindfulness training may be an important means for personal stress management, additional organisational interventions are vital. Such interventions may help to create a working environment in which those working in healthcare are better able to care for themselves and so provide high quality care to their patients.

5.1. Summary of Key Findings

Health care providers experience a high degree of stress for reasons associated with the conditions of the service (patient expectations and suffering, shifts, time pressure, adaptability to new equipment and procedures), but also with the working environment (poor organization of work activities). There is “a modern epidemic” of stress for those who carry out their profession in the field of health in particular (Chiappetta et al., 2018). Thus, occupational interventions are given special relevance as they are as necessary as the cognitive-behavioral ones. Interventions in work settings have the objective to improve wellbeing and to reduce job related stress. Nurses, doctors and healthcare personnel who carry out different roles have shown benefits with mindfulness programs (improvements in the management of emotions, declination of perceptions of stress, improvement in the quality of work performance and in the relationships with patients and colleagues). Occupational stress management is most effective in reducing stress. The implementation of participative programs for the prevention and reduction of stress at work in work environments that guarantee at the same time safety, hygiene and health conditions for workers, are complemented by educational and informational activities, including courses for workers on methods to manage and reduce stress, guidelines to prevent and manage stress and encouragement for a good organization of work activities. Adapt jungle shifts to the work, but don't use the night shift too often, allow two breaks (short and long), and increase the number of night shifts (latitude). Moreover, pay attention to leadership (support and respect from superiors).

5.2. Practical Implications

Occupational stress management interventions designed to support healthcare workers in managing stress and job demand are of fundamental importance due to the delicate occupational context in which these workers operate. Moreover, in healthcare services they are called to manage patients' life and death, facing aggressive behavior and extreme professional responsibility and liability. In the last decade, occupational stress of healthcare workers has gained growing interest in the scientific community due to its severe impact not



only on the psychological and physical wellbeing of healthcare workers, but also on the quality of care provided to patients (Chiappetta et al., 2018).

Healthcare workplaces are often affected by working conditions that may compromise patient safety and well-being, such as heavy workloads, staff shortages, time pressures and organizational conflicts. The existing working environment may burden healthcare workers with excessive demands and too low job control. This may lead to physical, mental or behavioral complaints. Stress is the most common response of the healthcare personnel to the problems it faces on a daily basis. Healthcare employees experience extreme conditions, as caring activities include life loss and severe wounded involved citizens. All the above have a severe impact on their psycho-mental health (Koinis et al., 2015).

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