

# INTERDISCIPLINARY MANAGERIAL INTERVENTIONS FOR HEALTHCARE WORKERS' MENTAL HEALTH – A REVIEW WITH COVID-19 EMPHASIS

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## ABSTRACT

Healthcare workers are representatives of occupations that are most exposed to high levels of stress in the work environment. These characteristics of work increase the probability of suffering from mental disorders. One aspect of mental disorder prevention in the workplace is the role of healthcare managers as those people who are responsible for minimizing the negative impact of work-related stress factors. Their role can be performed by creating effective initiatives supporting workers' mental health. The need to support the implementation of such initiatives has been highlighted by the COVID-19 pandemic. The aim of the review is to summarize available types of managerial interventions in the field of mental health protection of medical staff, considering the assessment of their prevalence, determinants of effectiveness, and limitations from the perspective of healthcare managers. The article was prepared based on the literature review method and covered publications from original research in English and Polish, published until June 2023 in the following databases: PubMed, Google Scholar, and PsycINFO. In addition to the original research, the review also includes documents developed by international health organizations. The determinants of effective managerial interventions that can be used for the needs of managers and decision-makers in the field of mental health management in the workplace have been presented. The greatest widespread of mental health initiatives concerned the pandemic period, but now the key systemic task should be to maintain the frequency of impacts outside the pandemic period, due to the constant nature of stressors. The determinants of their effectiveness include, among others: incorporating elements of psychological knowledge into the process of educating managers, involving healthcare specialists in the development of programs, and examining the needs of the staff each time at the stage preceding interventions. *Med Pr Work Health Saf.* 2024;75(1):57–67

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## INTRODUCTION

Mental health until the outbreak of the COVID-19 pandemic was strongly linked to the personal sphere of each healthcare worker's life, and therefore it was not the subject of managerial interventions taken in a systemic or local approach within medical facilities. This was mainly due to the perception of medical professionals as those who should help others in their workplace, rather than necessarily receiving or enforcing it themselves [1]. Furthermore, the direct impact of their mental well-being on their effectiveness and internal motivation in their daily work, and consequently on the quality of services provided in the facility, has not been recognized so far [2]. Today, it is already known that the influence of the workplace is equally significant as individual susceptibility to certain psychological dysfunctions, including burnout, which, with the publication of the International

Classification of Diseases (ICD-11), has gained the status of a standardized group of symptoms [3]. The relationship between mental health and the quality and satisfaction of one's work seems to be bidirectional. On one hand, the unsupported negative effects of medical staff can exacerbate the impact of adverse working conditions (such as high emotional or physical loads). On the other hand, individual susceptibility in the form of a private psychological crisis of a healthcare professional can lead to higher emotional and vocational consequences, but it is never the primary cause of the deterioration of the team's emotional well-being in the workplace [4]. This means that by providing a set of actions supporting the mental health of medical personnel, it is possible to effectively prevent negative consequences at both the individual and institutional levels. The customization of interventions to the needs of a specific professional group is addressed by the interdisciplinary field

called Occupational Health Psychology (OHP), which combines knowledge from the areas of management, public health, medicine, psychology, and occupational safety and hygiene [5]. It is a field focused on interventions that promote the quality of workers' lives at and outside of work, and its effectiveness is confirmed by numerous empirical studies [6].

When considering the effectiveness and organization of interventions, it is worth starting with the operationalization of the concept of mental health, which serves as a starting point for interpreting the needs of program recipients. Most authors refer to the definition of health as provided by the World Health Organization (WHO), which emphasizes the biopsychosocial context of health, highlighting an individual's ability to adapt to the environment (including the work environment) as well as the realization of their potential and the performance of tasks attributed to their role in a professional and social context [7]. This definition essentially marked the beginning of perceiving psychological difficulties as manifestations of a disruption in the state of health equilibrium, challenging the previous notions that equated health with the absence of somatic disease diagnosis.

In designing pro-health interventions in the area of mental health for healthcare professionals, authors often draw upon Jahoda's criteria of health [8], which were later expanded by Heszen [9]. These criteria encompass skills such as the ability to cope with demands imposed by the work environment, autonomy – understood as the tendency for self-regulation in emotionally demanding situations, a high and positive level of self-esteem, and a strong sense of efficacy in one's profession. Based on these criteria, diagnostic criteria for biopsychosocial health have also been developed [10], which indicate 2 essential components in differentiating psychological states: an affective component containing 2 items (mood stability and level over time) and a social functioning component containing 11 items, of which at least 6 must be at a high level to define an individual as healthy within a specific work environment. Previous empirical research on the implementation of interventions based on these components indicates high effectiveness in stimulating goal achievement, reducing chronic stress levels, and increasing internal motivation [11].

Healthcare professionals belong to the occupational groups most heavily exposed to workplace-related stress [12]. The most common disorders within this group include burnout, secondary traumatic stress (STS),

post-traumatic stress disorder (PTSD), and anxiety and depressive disorders [13]. The occurrence of both STS and PTSD is particularly characteristic in medical professions due to the risk of their development regardless of direct involvement in a specific event [14]. The process of going through a traumatic experience for a patient and their family can have negative psychological effects even up to 12 months later [15]. However, the latter 2 groups of disorders less frequently result from environmental factors as they possess a significant biological component (though this does not imply they should be neglected in intervention planning). In the differential diagnosis of the disorders mentioned initially, a spectrum of symptoms strongly associated with anxiety disorders often emerges, even with major depressive disorder (MDD) [16]. However, this similarity should be differentiated each time due to the high risk of exacerbating untreated episodes regardless of work conditions and available coping resources.

The earliest studies involving medical professionals working on the frontline with COVID-19 patients emerged in various regions of China, with a particular focus on healthcare workers in Wuhan. Kang et al. study [17], based on a group of 994 participants, highlighted a correlation between distancing from events and the severity of symptoms measured using questionnaires such as *Patient Health Questionnaire* (PHQ-9), *General Anxiety Disorder-7* (GAD-7), *Insomnia Severity Index* (ISI), and *Impact of Events Scale-Revised* (IES-R). Despite significant differences in symptom severity, symptoms appeared in all participants, with 36% of them meeting sub-threshold criteria for mental disorders and 6% developing a severe form of disorder. During the same period (immediately after the pandemic outbreak – January/February 2020), Lai and colleagues conducted a study involving 1257 individuals, which yielded results consistent with those mentioned above, and additionally pointed to the specificity of the occurring symptoms [18]. A strong dominance of depressive and anxiety symptoms was evident (50% and 45% in the sample), with insomnia symptoms appearing in one-third of the participants. In a meta-analysis covering studies within the Chinese population, the authors demonstrated that not only depression-like symptoms but also a major depressive episode could potentially be diagnosed in almost 23% of medical professionals (out of 33 062). In Polish studies, medical professionals' results were compared with those of non-medical professionals on the *General Health Questionnaire* (GHQ-28) subscales measuring anxiety,

insomnia, and somatization symptoms. In all subscales, medical professionals achieved statistically significantly higher scores than non-medical professionals [19]. The results were comparably high in groups of doctors, nurses, and midwives. Despite such high scores across all groups, only 9% sought psychological help during that time [20]. Another study involving 137 active medical professionals revealed that the majority of individuals cope with difficulties in a dysfunctional manner, attributing this to the lack of available interventions in the workplace [21].

A crucial aspect in the design and implementation of interventions is their adaptation to the target group and their needs related to the context of their professional life. The initial step in intervention is the identification of main stressors and risk factors. From the perspective of Lazarus and Folkman's theory [22], the stress response is a type of specific transaction in which subjective assessment of the situation and lack of coping mechanisms lead to negative emotional consequences. From Hobfoll's perspective, stress (including occupational stress) arises due to resource depletion, often resulting from the inability to change maladaptive behaviors, leading to a decrease in protective resources and subsequently the emergence of burnout symptoms [23]. Occupational stressors, as defined by the International Labour Organization, encompass all aspects "related to job design and management, social and organizational context, which can cause psychological and physical harm" [24]. These include organizational factors such as disrupted communication between employees and managers, lack of access to support, lack of space for expressing needs within the team, and significant separation of professional roles from personal situations. Significant stressors also include exposure to trauma, exposure to fatal cases, and the necessity to convey difficult information. In terms of the general characteristics of stressors in medical professions, they align with the "high-job strain" classification in the job demand-control model [25], which refers to positions with high demands (including cognitive and emotional) combined with low control over shaping work conditions. Considering the potential consequences of the lack of interventions in the field of healthcare professionals' mental health, several negative outcomes should be considered, including deterioration of work quality, low engagement in organizational structures, high rates of absenteeism and job resignations, and even elevated levels of aggression and communication difficulties within teams and between

healthcare professionals and patients. This can lead not only to a decline in health status, and even the loss of life for individual workers but also to a decrease in the quality of services provided in the facility, eroding public trust, which is crucial in the healthcare sector [26].

Given the severity and relevance of the issue regarding the exposure of medical personnel to the negative effects of workplace stressors, it is essential to strive for the development of best practices for managers that facilitate the effective resolution of these challenges. The mental health of employees strongly influences the quality of medical services provided in the facility and the job satisfaction of healthcare professionals within their teams. A review of interventions will enable the synthesis of findings from previous initiatives aimed at mental health, serving as a starting point for further empirical work in the creation of effective and systematic protocols for healthcare managers. The initial idea behind the literature review for this work was to focus solely on interventions during the COVID-19 pandemic. However, based on the diagnosis of psychological burdens regardless of the pandemic situation, the relevance of including literature from the years preceding the pandemic was emphasized to maintain continuity in addressing the issue.

The main objective of this paper is to present available types of managerial interventions in the field of mental health protection for medical personnel. The review aims to categorize these interventions and provide specific examples of their implementation. All interventions discussed in this paper are commonly used in the field of employee health psychology; however, most of them require adaptation to the characteristics of medical professions in terms of stressors, which is also the subject of this review. The referenced literature covers both the evaluation of mental health status in the years before the outbreak of the COVID-19 pandemic and the current state to demonstrate that the need for implementing interventions to improve the mental health of medical professionals is significant, regardless of current circumstances and work mode with high exposure to stress factors.

So far, literature reviews in this field have focused on the general condition of healthcare personnel and the outcomes of interventions. The added value of this review is the emphasis on the determinants of the effectiveness of specific interventions and their course, which can have a direct practical implication in the process of intervention design performed by healthcare

managers. The specific objectives of the paper are defined as follows:

- Assessing the prevalence of implementing managerial interventions in the mental health domain for medical personnel.
- Attempting to identify determinants that ensure the effectiveness of individual and organizational intervention programs.
- Verifying the needs and limitations associated with conducting such interventions in medical facilities from the stakeholders' perspective.

## METHODS

This paper was prepared using the literature review method. A bibliographic search was conducted using the electronic databases: PubMed (Medline), PsycINFO and Google Scholar. Additionally, information about initiatives by international institutions was obtained from websites and reports published by international organizations, including WHO. Publications in both Polish and English language were searched. The process of selecting articles in the databases was based on the following keywords: “healthcare workers,” “healthcare management,” “medical staff,” “mental health,” and “interventions” or “protocol.” The search included

papers published until June 2023. The authors reviewed each article on title and abstract for potential eligibility in this review. A final decision upon inclusion in the present study was based on full-text assessment.

The search identified a total of 6542 studies. After duplicate removal, 3535 records were screened on title and abstract, of which 3378 did not meet the inclusion criteria. Full-text assessment was performed on the remaining 157 studies. A total of 20 studies were included for review. The search process is presented in Figure 1.

This study is not a systematic review. Papers were categorized into 3 subgroups:

- articles assessing concepts of categorization of interventions (N = 3),
- original works assessing effectiveness of specific interventions worldwide (N = 14),
- recommendations on determinants of effectiveness (N = 3).

Authors included studies published in English and Polish language and focused on interventions in the field of mental health protection for medical staff. Studies that focused on other occupations and overall health (not specifically mental health issues) were excluded.

## RESULTS

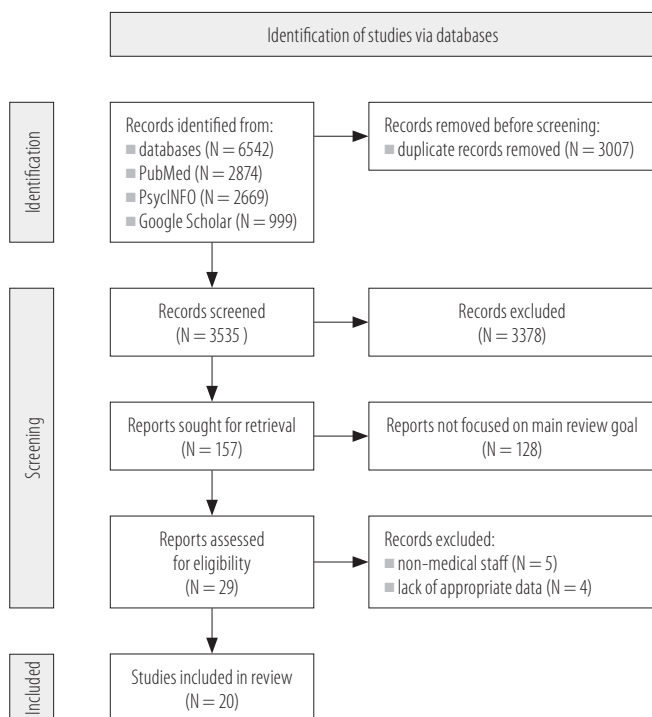
The results of the review were presented below in 3 sub-categories:

- categorization of managerial interventions,
- examples of interventions in Europe and worldwide,
- determinants of effectiveness.

### Categorization of managerial interventions

When analyzing existing organizational interventions in the realm of mental health, it is valuable to start by classifying the offered forms of assistance based on the criterion of the target group. According to one typology, interventions can be divided into individual and group-based [27]. Individual forms encompass various therapeutic approaches and training where medical staff collaborates with mental health specialists, learning emotional self-regulation and emotional-workplace hygiene skills. In the case of group interventions, medical staff from one or several institutions are divided into subgroups based on different criteria, such as exposure to stressors or the nature of patient interaction.

Taking another classification approach, interventions can be categorized based on their function: preventive (proactive), enriching, and reactive [28]. Preventive interventions focus on identifying workplace stressors



**Figure 1.** Study selection published until June 2023 included in the narrative review of managerial interventions in the field of mental health protection of medical staff



and creating intervention plans before crisis situations occur. Enriching interventions provide resources and tools to employees to act as protective buffers during inevitable stressors. Reactive interventions are employed when a crisis arises, aiming to resolve difficulties stemming fully or partially from prolonged stress.

A third, commonly used categorization involves classifying interventions as primary, secondary, or tertiary [29]. Primary interventions largely align with proactive initiatives (preventive). Their goal is to reduce the risk of mental health-related problems in the workplace. This can be achieved either by eliminating stressors (which is often not possible) or changing the nature or intensity of stressors to minimize their impact. Such interventions involve modifying work organization, conditions, and organizational culture. Examples include communication and health communication training, conflict resolution skills training, reducing work hours and shifts, and job redesign.

Secondary interventions (enriching) aim to provide employees with tools, accessible knowledge sources, and resources that serve as protective buffers against unavoidable stressors. They focus on changing employees' beliefs to influence their proactive behaviors. Common methods include cognitive-behavioral techniques, group teaching of stress management skills, anger control training, and emotion regulation.

Tertiary interventions (reactive) are used when a crisis has arisen, aiming to either fully or partially heal employee difficulties resulting from prolonged stress. They address both chronic impairments and short-term, reversible effects of stress. Examples include therapeutic programs for employee well-being, medical and psychotherapeutic interventions, and programs for supporting return to work after extended absence.

Regarding the effectiveness of these interventions, results so far are inconsistent, but consensus exists on one point: the earlier the intervention, the higher the effectiveness. Primary interventions tend to be the most effective, often resulting in increased job satisfaction and improved mental health. However, there are instances of increased absenteeism and job turnover due to unfavorable aspects of the workplace being brought to light. Secondary interventions consistently yield improvements in self-esteem, stress perception, job quality, and satisfaction. Tertiary interventions vary in effectiveness based on techniques used, with cognitive-behavioral therapy often showing the most significant results. Overall, organizational interventions do not consistently rank as the most effective in any category, which

researchers attribute to the variability of management practices and the lack of involvement of all stakeholders in intervention design.

### **Examples of interventions in Europe and worldwide**

One of the interesting European interventions is the METEOR project, covering 4 European Union countries (Belgium, the Netherlands, Italy, and Poland) [30,31]. The main goal of the program is to identify specific reasons for the mass resignation of healthcare workers from their professions and to provide recommendations for facility managers and decision-makers to maintain employee well-being and ensure a high level of job satisfaction. Comfort at work also includes reducing and eliminating the risk factors for mental disorders and occupational burnout, which can lead to long-term professional absenteeism. The METEOR operates on 2 levels – through the well-being evaluation of doctors and nurses in hospitals across included European countries, and through the organization of training, workshops, and meetings aimed at evidence-based recommendations. The project's outcome (planned for March 2024) will be the creation of a set of tools and “best practices” available to all stakeholders involved in maintaining the number of medical staff and their well-being. Within the METEOR program, 2 systematic reviews in the area of predictors and interventions related to the retention of healthcare workers were also conducted [32,33].

As key elements of recommendations, the introduction of managerial actions such as regular assessment of staff needs, communication based on freedom of speech without consequences, interdisciplinary solutions for mental health protection, and the possibility of supervision were considered. The study examining predictors of job leaving intentions included 254 doctors and 1159 nurses. Among the predictors for doctors, statistically significant factors included low job satisfaction ( $p < 0.001$ ), personal experience of deterioration in health (psychological or somatic) ( $p < 0.001$ ), and night shift work ( $p = 0.025$ ). In the group of nurses, statistically significant predictors included low job satisfaction ( $p < 0.001$ ) and 2 components of burnout, namely emotional exhaustion ( $p = 0.007$ ) and depersonalization ( $p < 0.001$ ) [31].

Before the COVID-19 pandemic, most interventions for the mental health of healthcare professionals focused on reducing burnout levels among those working in oncology departments or other units closely associated with high patient mortality rates. An example

of a well-publicized initiative was the “Take care!” project [34]. This project encompassed 29 oncology departments and involved group-based interventions to reduce stress and burnout among staff members. The group sessions were enriched with meetings of healthcare representatives to facilitate mutual exchange of experiences and emotions in a non-evaluative atmosphere. The results showed that interventions in the experimental groups led to a reduction in emotional exhaustion in both the second and third measurements, as well as decreased depersonalization indicators in the second measurement, compared to control groups. Another conclusion from the study was that burnout indicators are significantly related to the perception of work and its impact on one’s well-being. Therefore, lower burnout indicators are associated with better job perception and higher self-efficacy in performing it.

The first studies monitoring the effects of specific interventions resulting from the COVID-19 pandemic appeared in Asia, where the virus spread initially. In China, at the Second Xiangya Hospital, healthcare workers were given access to psychoeducational online courses and a 24/7 helpline that provided crisis intervention and other forms of support [35]. On units particularly exposed to stressors during this period, group activities were introduced to reduce stress and emotional tension, such as breathing techniques. Additionally, efforts were made to improve the quality of life for healthcare workers through activities such as providing relaxation spaces during working hours, ensuring regular meals, recording messages for loved ones, and supplying personal protective equipment. Qualified mental health specialists were also invited to provide support when needed, staying in specially designated areas. This case illustrates the need to adapt interventions to cultural characteristics. While individual patient-centered interventions worked better in European contexts, the opposite effect was observed in Asia. Healthcare professionals in this group were reluctant to have individual visits, considering it a reason to question their competence and emotional strength. They reacted with irritation, anger, and refusal to accept recommendations. In evaluation surveys, they mentioned that better help for them involved ensuring personal resources and group training on stress management, but only those who did not put their problems at the center of attention [36]. In Malaysia, interventions were based on the results of previous evaluations of needs and psychopathology symptoms among healthcare professionals [37]. Initially, the quantitative assessment measured levels of depressive symptoms, anxiety, distress, and

burnout using a proprietary *Remote Psychological First Aid Protocol* questionnaire. Subsequently, for those who did not need psychiatric interventions, online interventions promoting mental health were introduced, along with numerous anti-stigmatization campaigns. Those with active symptoms were also provided with round-the-clock psychiatric care through online consultations on the WhatsApp platform. The treatment standards strictly adhered to the recommendations of “Remote Psychological First Aid (PFA) during the COVID-19 outbreak” [38].

In the United States, 2 major mass intervention centers were located in New York and Minnesota. In the “CopeColumbia” project, the support program was based on providing mutual support among healthcare workers [39]. Additionally, each participant gained access to an online platform containing training and expert presentations on mental health, as well as information about available forms and sources of support. The intervention was tested in 186 study groups. All participants expressed a willingness to participate in subsequent meetings (ranging 1–13). The identified recurring needs among the groups included dealing with trauma, coping with patient grieving processes, and personal family losses. Many healthcare professionals also complained about inadequate preparation and lack of knowledge regarding treatment protocols for patients, leading to moral dilemmas associated with making choices in their professional approach. Some also experienced intense feelings of guilt after a patient’s death. Meanwhile, in the Center for Stress, Resilience, and Personal Growth (CSRPG) program, employees from 8 affiliated hospitals received progress reports. They independently planned a hierarchy of support needs for various groups and representatives [40]. In the following stage, they held organized meetings tailored to the needs of the most vulnerable groups and then carried out preventive actions for less vulnerable individuals. As part of the project, a mobile application was developed, allowing each specialist to perform self-assessment tests and monitor changes in well-being during the pandemic. In Minnesota, the “Battle Buddie” intervention was introduced, which focused on providing emotional support in groups of individuals on the frontline of the pandemic battle [41]. The intervention procedure included both individual and group meetings, discussions, and primarily relied on peer support techniques.

In Italy, one of the key interventions for healthcare professionals was the “PSI COVID-19” initiative [42]. The target group consisted of healthcare professionals

who received a psychiatric diagnosis or were undergoing psychotherapy since the beginning of the pandemic. The intervention involved interdisciplinary monitoring of their health status, psychological evaluation of their readiness to work in COVID-19 units, and beyond. In cases where a lack of readiness for work or a mismatch with the demanding emotional and health-related workload was detected, employees were directed to a center for occupational psychology. This center would then decide on the appropriate path for helping the healthcare professional. The dominant issues identified during the study included fatigue due to social isolation, increased irritability, anger, psychosomatic symptoms, and rapid mood swings. All these symptoms were linked to the lack of prior use of preventive strategies, resulting in a perceived low self-efficacy in coping with stress and environmental pressures.

In France, the “The Port Royal Bubble” intervention was introduced [43], aiming to create a space dedicated to the mental health of healthcare workers in each affiliated hospital. This space was equipped with various tools and amenities and employed administrative staff responsible for creating a friendly and open atmosphere for discussing difficult topics. Alongside many initiatives promoting mental health improvement, group physical activities, massages, pilates, strength training, and numerous relaxation and breathing activities were also offered. The key to the success of this space was its availability during and outside working hours, from 9:00 a.m. to 9:00 p.m. every day of the week. Qualitative satisfaction research demonstrated a positive reception of the initiative and the desire to continue participating beyond the pandemic.

### **Determinants of effectiveness**

The main challenge in assessing the effectiveness of the mentioned intervention methods is that they are rarely implemented individually. On one hand, the necessity of interdisciplinary interventions is visible, but on the other hand, numerous questions arise regarding what specific elements managers should include in the program to ensure its effectiveness. European recommendations from 2000 [44] have tried to shift the emphasis from the content of the intervention to the process of its implementation. These recommendations are consistently replicated in subsequent publications and guidelines for change management in healthcare institutions, while also placing a significant portion of the responsibility for the success of the intervention on the managers themselves.

Referring to the same publication, a list of factors stimulating change management in the field of mental health in the workplace in healthcare can be created. Firstly, a systematic approach with a specific definition of the scope of roles and tasks in a specially designated team is crucial. Secondly, treating employees as experts in their own feelings, emotions, and difficulties is deemed necessary. Managers should provide them with the opportunity to express themselves comfortably about their experiences. Each intervention should also be monitored – not only quantitatively but also qualitatively. Regarding the evaluation phase itself, proper use of stress measurement tools and risk management tools by the management is necessary. Personalized approaches in identifying stressors should also be considered, monitoring issues not only within a specific institution but also for each role in the structure.

The most comprehensive set of recommendations was created in 2015 [45] and includes guidelines for both intervention creation and evaluation in the context of mental health. Firstly, in terms of intervention selection, recommendations include early and primary prevention interventions, combined with a reactive approach in the form of tertiary interventions. In identifying risk factors for the mental health of healthcare professionals, managers should focus only on those risk factors that can be operationalized and whose intensity can be modified. Effective change management is also crucial, involving employees from all levels of the organization, not just management structures. Management structures should also be actively engaged and demonstrate enthusiasm for change. Personalization is also important, adapting interventions to the specific characteristics of the target group – using templates consistently yields poorer results. From the perspective of intervention monitoring and progress tracking, ensuring a randomized selection of individuals for the control group, conducting multiple measurements (before and after), and assessing long-term outcomes (follow-up) are crucial.

When it comes to method selection, the use of standardized questionnaires and additional diagnostic methods beyond self-reporting is recommended [45]. Monitoring should also involve identifying risk factors present within the organization and consistently considering both outcome and process indicators. When assessing the mental health of healthcare professionals, variables that may disrupt results, such as their position within the organizational structure, the degree of control over work and its outcomes, and the characteristics

of the work environment (e.g., type of unit, treatment specifics, patient needs), should be carefully controlled and accounted for.

Current recommendations are limited to those prepared by WHO [46], which has formulated a plan of action for optimizing healthcare efforts for the years 2022–2030. One of its main priorities based on its proprietary model is “building,” which includes actions aimed at ensuring the full realization of the potential of medical personnel and promoting their well-being. The plan provides readiness for the organization’s representatives to support countries in taking actions and costs to minimize the impact of environmental risk factors on the mental health of healthcare workers. Furthermore, a priority is set to maintain the internal motivation of employees to remain in a particular profession and, moreover, in a particular workplace. It is recognized that shaping employee motivation should go beyond financial incentives and be based on decisive and regular interventions directed at previously diagnosed needs.

To sum up, the implementation of certain pro-mental health initiatives can involve many challenges and barriers. One of them is the private and lawfully restricted nature of medical data, especially data related to mental health. Even if such data is accessible to decision-makers, healthcare professionals may tend to give unrealistic feedback about their state of mind due to their fear of social stigma at the workplace. Moreover, most actions have voluntary status, so there is a tendency to perceive participants as those with worse mental health-related issues. To create effective interventions, they should be addressed to all healthcare workers, but there is no possibility of including them as compulsory aspects of collaboration – especially in those countries that struggle with shortages among healthcare professionals. All those barriers may be overcome with specific incentives, which could be a topic for future studies.

## CONCLUSIONS

The emergence of the pandemic crisis has triggered the implementation of various interventions for the mental health of medical personnel. While theoretical models and empirical research pointing to the psychological difficulties of healthcare professionals have existed for decades, it is only within the last 3 years that their number has significantly increased. This presents a challenge for managers in terms of ensuring coordination and monitoring their effectiveness. Due to

the unexpected nature of the pandemic crisis, management personnel are often ill-prepared for their roles in this regard, leading to heterogeneity and a lack of standardized actions.

This paper discusses and categorizes the interventions that have been implemented so far. Both individual and group interventions are highlighted and categorized based on functional criteria, including preventive, enriching, and reactive purposes. Different levels of interventions (primary, secondary, or tertiary) are also distinguished based on their assumptions and progression. To enhance the comprehensiveness of this review, future studies could explore the long-term effects of these interventions and potential barriers to their practical implementation. In addition, more in-depth case studies of specific interventions could offer practical insights for healthcare organizations.

The categorization and overview of interventions undertaken both in Poland and worldwide have led to the following conclusions, addressing specific goals:

- Despite the recognition of the issue of psychological burden on medical staff, top-down initiatives remain infrequent – most interventions are grassroots, which limits their impact to collaborating institutions. While training in workplace safety and hygiene remains essential in medical facilities, interventions for mental health are merely optional opportunities that are not enforced by authorities. The negative psychological consequences of the COVID-19 pandemic persist beyond the crisis itself. The goal for medical facility managers and decision-makers responsible for the healthcare system should be to maintain the frequency of campaigns and initiatives for the mental health of healthcare professionals in the coming months and years, regardless of the epidemiological situation.
- Among the determinants of effective managerial interventions for mental health, the following factors have been identified: interdisciplinary teams implementing the interventions, evaluating the needs of target groups and the effects over multiple time intervals using standardized tools. It appears that the most influential factor on outcomes is involving the target groups in program development. Additionally, interdisciplinary teams with mental health specialists leading should be ensured. Monitoring and evaluation at specified time intervals should also be mandatory. This element yields the best results when combined with the adept use of risk management tools.



■ There is a need to formulate “best practices” for managers regarding mental health and to incorporate mandatory training that prepares them to deal with the psychological crisis of employees. Concrete recommendations are lacking regarding the use of screening methods and evaluation of interventions in mental health for this specific target group. There is an excess of interventions based on proprietary questionnaires that have not been validated in groups of healthcare professionals. As a result, interventions often focus on reducing general stress rather than the specific psychological needs of the professional group.

#### Author contributions

**Research concept:** Julia Kowalska, Alicja Domagała

**Research methodology:** Julia Kowalska, Alicja Domagała

**Collecting material:** Julia Kowalska

**Interpretation of results:** Julia Kowalska, Alicja Domagała

**References:** Julia Kowalska

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