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Job burnout interventions: An overview of the systematic reviews

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Abstract

Introduction: A growing body of systematic reviews focused on interventions that help workers to overcome job burnout. This overview aimed to synthesize the results of the job burnout interventions.

Materials and Methods: Systematic reviews were searched in databases) PubMed, Web of Science, CINAHL, Embase, Google Scholar, and Scopus) from inception to 2023, and included if they mentioned the results of at least one intervention, provided the details of the reviewed articles, received high scores in the quality assessment stage, and their full-text in English were available.

Results: Ten systematic reviews were identified that reviewed around 303 unique articles. At least 29 types of interventions were identified and categorized using narrative synthesis and thematic analysis methods. The interventions could be categorized into three main themes: precipitating-focused, emotional state-focused, and consequence-focused intervention. Each theme is further divided into change or acceptance-based interventions.

Conclusion: Findings show that most interventions focused on changing the situations that cause or lead to job burnout. However, the interventions that focused on accepting emotional aspects of job burnout were the most effective programs. There are still some inconclusive results about several interventions, and some research gaps that need attention were discussed.

Keywords: Burnout, Mental health, Occupational stress, Systematic review

Introduction

The World Health Organization included job burnout as "problems associated with employment or unemployment" in the International Classification of Diseases (ICD-11). It defined it as "a syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed." Job burnout is not classified as a medical condition but may lead to physical or mental problems (1). Maslach, one of the pioneers in studies, considers job burnout a multidimensional construct characterized by three dimensions: emotional exhaustion, pessimism or depersonalization, and a decreased sense of personal effectiveness (2). Emotional exhaustion refers to reducing emotional resources in response to a professional demand

and the experience of feeling empty and powerless (3). Pessimism/ cynicism is defined as a negative and indifferent attitude towards work and other colleagues, and ineffectiveness is defined as not having confidence in one's abilities to perform various tasks (4).

Several factors, including organizational and individual factors, have been found to affect job burnout. In a systematic review of job burnout predictors, Shoman et al. identify 261 factors that may lead to burnout. Accordingly, high job demands and poor communication may have a small harmful effect, while, social support at work may have a small protective effect on job burnout. Coping skills, social activity, relaxation, and exercise also show small to medium protective effects. At the same time, negative job attitudes and work-life conflict had small to medium harmful effects on job burnout. High self-esteem and stress from work conditions are the two factors that were found to have small to large protective or harmful effects on job burnout, respectively (5).

Job burnout may lead to a range of biopsychosocial consequences. A systematic review of the consequences of job burnout showed that workers with high burnout may suffer from physical health problems such as cardiovascular disorder, musculoskeletal pain, chronic fatigue, and hospitalization, as well as mental health problems such as insomnia, depression, and psychological ill-health in general. People with high burnout may face severe injuries and premature mortality (6). A study by Rudman et al. showed that people may experience the health consequences of burnout, such as cognitive dysfunction, depression, and sleep problems even a decade later (7). In some burnout cases, suicide ideation and attempts have been recorded in the literature (8,9).

Employee burnout can negatively affect organizations, as they may experience job dissatisfaction, absenteeism, and disability-related issues (10). These events may further reduce the quality of work. For example, Stehman et al. found that high burnout in the healthcare sector may result in increased mistakes, client dissatisfaction, colleague conflict, and decreased quality of care and client safety (11). Moreover, high depersonalization is a risk factor for long-term sickness absence and decreased quality of working life (12). Negative consequences of job burnout have made this concept an important factor in many organizations, and

several researchers have attempted to create interventions to reduce job burnout. The increasing number of studies published over the past decades has led to several systematic reviews about job burnout interventions. This created an opportunity to overview systematic reviews on burnout interventions. According to Smith et al. an overview of systematic reviews allows the researchers to summarize the results of the existing systematic reviews in a single document, provides an opportunity to compare the findings, and helps to identify research gaps for future studies (13).

The current overview of systematic reviews aimed to answer the following questions: What types of burnout interventions have been mentioned in systematic reviews from inception to 2023? What was the effectiveness of the interventions?

Materials and Methods

We applied the Preferred Reporting Items for Systematic Review and Meta-Analyses (PRISMA) (14) to identify and screen the systematic reviews and the narrative synthesis methodology (15) for the overview.

Six electronic databases (PubMed, Web of Science, CINAHL, Embase, Google Scholar, and Scopus) were searched using keywords such as "systematic review," "burnout," "emotional exhaustion," and "intervention." The Boolean operators AND, OR, NOT, and (truncations) were employed to find the relevant articles. Inclusion criteria included reviews were included if they (a) were systematic reviews, (b) reported any kinds of burnout interventions, (c) were English, and (d) had a full text. Reviews that contained qualitative, quantitative, or both were included. Exclusion criteria included reviews were only excluded if they provided details of a systematic search, such as a database list, search keywords, and inclusion and exclusion criteria. They needed to meet more scores in the quality assessment phase. Reviews that focused on burnout among medical students and residents were excluded. Protocols and ongoing reviews were also excluded. The AMSTAR measurement tool was employed to select the high-quality reviews. The short version of the AMSTAR has 11 requirements, and the reviews have at least six requirements to be included in the overview (16). The first and second authors did an initial electronic database search, and the quality assessment of the papers was carried out

by all authors independently. All disagreements on quality ratings between the evaluators were discussed, and a consensus was reached. Finally, ten systematic reviews that met the highest quality criteria were included in the study.

Data extraction/primary coding of systematic reviews

The Preferred Reporting Items for Systematic Review and Meta-Analyses (PRISMA) were utilized to screen and remove the irrelevant articles. In the first stage, the duplicate reviews were removed. In the second stage, all authors examined the abstracts and assessed the quality of the reviews. All authors assessed and screened reviews that did not meet the inclusion criteria. The remaining articles were used in the narrative synthesis. Higgins et al. claim that statistical pooling is not possible or suitable when the researcher wants to synthesize data from different methodologies (qualitative, quantitative, and mixed-method) (17). In this overview, ten articles with different

methodologies were included, and therefore, a narrative synthesis approach was selected. By utilizing this method, we could integrate and describe the results of the studies without referring to the effect size of each intervention. In narrative synthesis, content or thematic analysis can be employed to analyze the data and generate the main themes across multiple studies. The Braun and Clarke (18) six-step thematic analysis approach was used in this paper to synthesize the data.

Results

In the first stage of identifying of systematic reviews, we found 63 references. After removing duplicate studies, 48 references remained. In the next stage, 22 papers were excluded because they did not meet the inclusion criteria. So, 26 articles were assessed for eligibility, and finally, 10 articles were included in the overview (Figure 1).
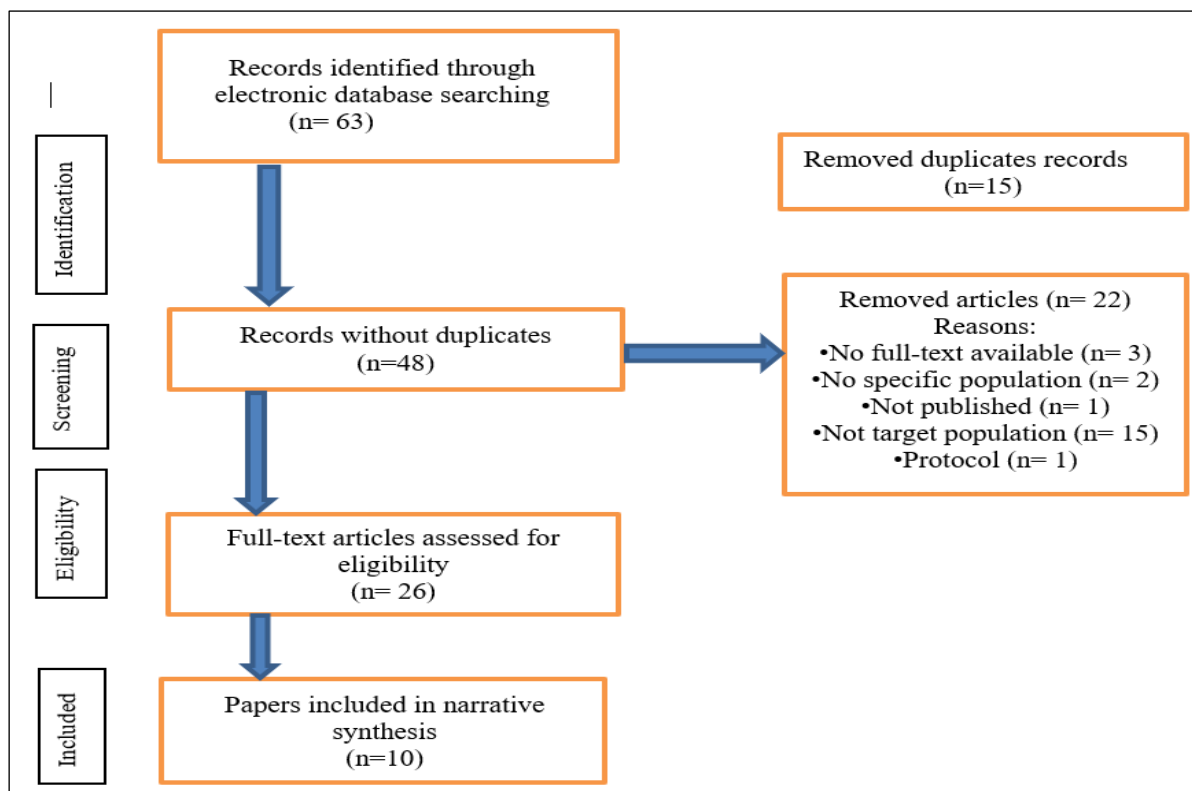
Fig 1. PRISMA flowchart

Table 1 provides descriptive characteristics of the included reviews. The number of studies included in each systematic review varied from 8 to 81 (19,20). These ten systematic reviews

analyzed the results of 303 unique studies. All systematic reviews met relatively high-quality criteria according to the AMSTAR assessment tool.

Table 1. Characteristics of the included studies

Author	Method/Included articles	Interventions	Population	AMSTAR score
Wiederhold et al. (2018) (21)	Systematic review N=13	• CBT •Art therapy •Counseling intervention •Mindfulness •Stress management and communication training •Supportive group	Physicians	10/11
Aryankhesal et al. (2019) (22)	Systematic review N=18	•Communication skills training •Thankful events •Consultation •Yoga •Professional identity development program •Meditation •Coping skills training •Mindfulness training •psychosocial training •Team-based program	Physicians	9/11
Dijxhoorn et al. (2021) (23)	Narrative systematic review N=59	•Meditation program •Mindfulness •Educational program •Art-therapy-based supervision •Skilled-based interventions •Peer-Coaching •Physical activity program •Communication training	Healthcare professionals	9/11
Salvado et al. (2021) (24)	Systematic review and meta-analysis N=10	• Mindfulness-Based intervention	Primary Healthcare Professionals	10/11
Suleiman-Martos et al. (2019) (25)	Systematic review and meta-analysis N=17	• Mindfulness training	Nurses	9/11
Busireddy et al. (2017) (26)	Systematic review N=19	•Mindfulness •Meditation intervention •Communication and SMTP •BATHE stress therapy training •Incentivized exercise program •Time sleep •Support group structure •Duty hour restrictions •Balint training •Stress management	Resident physicians	10/11
Panagioti et al. (2017) (27)	Systematic review and meta-analysis N=19	•Educational interventions •Self-confidence and communication skills •Mindfulness-based Stress reduction intervention •Exercise	Physicians	8/11
Klein et al. (2019) (28)	Systematic review N=9	• Mindfulness-Based Intervention	Health Professionals	10/11
Thomas Craig et al. (2021) (29)	Systematic review N=81	• Technology implementation	physicians	9/11
Dechant et al. (2019) (30)	Systematic review N=50	• workflow changes • initiatives to incorporate scribes • expand team responsibilities • improve communication • duty hour limits • schedule changes • time-banking • implementation • improvement of EHRs	physicians	8/11

This research overviewed ten systematic reviews consisting of 303 unique articles. A total of 29 types of burnout interventions were identified in the articles (Table 2). The extracted interventions were categorized into three main themes: precipitating, emotional state, or consequences of job burnout. In each category, some interventions have been carried out to change or accept the situation, emotional aspect, or symptoms of job burnout.

The first theme: Precipitating event-focused interventions

Factors such as high workload or stress related to work can lead to burnout. Accordingly, the first groups of interventions were programs designed to affect factors that cause job burnout. Interventions like stress management (21), communication skills training (22), and educational programs (23) have been used to change the factors affecting job burnout, while interventions such as team-based intervention (22), supportive group (21), and counseling intervention (21) seem to help people to accept the factors that lead to job burnout but cannot necessarily be changed.

The second theme: Emotional state-focused interventions

Job burnout may lead to various psychological conditions such as high stress, anxiety, depression, and even suicide ideation/attempt. The second group of burnout interventions included programs designed to affect the emotional aspects of burnout symptoms. For example, interventions such as cognitive behavior therapy (21), time sleep (26), and psychosocial training (22) are designed to change job burnout symptoms. Other types of interventions in this section are used to accept situations related to job burnout without judgment, for example, art therapy (21), thankful events (22), yoga (22), and meditation (22).

The third theme: Consequence-focused interventions

Burnout may have some consequences, such as a disruption in interpersonal relationships. The third group of interventions includes programs designed to influence the consequences of job burnout. Interventions such as professional identity development program (22), physical activity (23), workflow changes (30), and expand team responsibilities (30) were designed to change the consequences of job burnout, while interventions such as random assignment (30) provide the basis for accepting the consequences of job burnout.

Table 2. Job burnout interventions

Types of interventions	**Precipitating event**	Change	Stress management (21)
			Communication skills training (22)
			Educational program (23)
			Skilled-based intervention (23)
			Duty hour restriction (26)
			Technology implementation (29)
			Initiative to incorporate scribes (30)
		Acceptance	Team-based intervention (22)
			Supportive group (21)
			Counseling intervention (21)
	Emotional state	Change	Cognitive behavioral therapy (21)
			Time sleep (26)
			Psychosocial training (22)
		Acceptance	Art therapy (21)
			Thankful event (21)
			Yoga (21)
			Meditation (21)
			Coping skills training (21)
			Peer-coaching (23)
			BATH stress therapy (26)
			Balint (26)
	Consequences	Change	Professional identity development program (22)
			Physical activity (23)
			Workflow changes (30)
			Expand team responsibilities (30)
			Schedule changes (30)
			Time banking (30)
			Coping skills training (22)
		Acceptance	Random assignment (30)

Discussion

This overview has synthesized the results of published systematic reviews about burnout interventions. In summary, we extracted at least 28 types of burnout interventions from 10 systematic reviews that analyzed 303 studies in the last two decades. These interventions could be divided into three main categories: precipitating events, emotional states, and consequence-focused interventions with different effects on burnout symptoms. Each category is further divided into acceptance and change of the situation or symptoms.

The first theme was precipitating event-focused interventions. Some interventions mainly focused on changing the situation that could decrease burnout, such as work-life conflict, and some others focused on accepting the situation that could not be changed, such as workload. Among change-based interventions, initiatives to incorporate scribes and communication skill training were effective in healing and reducing burnout symptoms. Sinsky et al. in a research conducted on physicians across all specialties in the United States, were surveyed between August 28, 2014, and October 6, 2014, explained that with programs such as initiatives to incorporate scribes, physicians need less time to record patient information and complete their administrative duties, then feel less burnout (31). A study on "impact of coping and communication skills program on physician burnout" reports that improving interpersonal awareness through communication skills has been correlated with reducing job burnout. However, the reason is still unknown (32). According to Sephien et al. shorter resident duty hours are possibly associated with improved resident-based outcomes, specifically emotional exhaustion (33). In the same direction, Busireddy et al. reported in research that duty hour restriction could also decrease burnout, but the result was not significant, and it was not conclusive if duty hour restriction could help reduce burnout (26). Other interventions, such as educational and skill-based, do not significantly reduce burnout symptoms (23). In the same direction, research conducted in 2023 by Sawyer et al. found that group psychoeducational programs effectively reduce burnout among nurse leaders. These programs focus on resilience, insight, self-compassion, and empowerment to combat burnout and strengthen coping strategies (34). In a study on nurse burnout among acceptance-based interventions in the category of precipitating events, only supportive groups were effective in reducing burnout symptoms by creating conditions for the acceptance of employees in the organizational context (35). It still needs to be more conclusive whether other interventions, such as team-based (22) or counseling intervention (21), can significantly reduce burnout symptoms. Some reviews concluded that these approaches were significantly effective, while others raised some questions about their effectiveness.

The second theme was emotional state-focused interventions. One of the most interesting findings in this research was about the effectiveness of interventions such as art therapy, mindfulness, yoga, thankful events, meditation, and peer-coaching that could help to accept the emotional aspects of job burnout. Art therapy was structured with different activities: Psychodrama techniques aimed at improving communication exchanges and play therapy to stimulate feeling comfortable through non-verbal communication based on the game. The topics included in the mindfulness treatment-based meditation were awareness of thoughts and feelings, biases and perceptual filters, dealing with pleasant and unpleasant events, management conflict, reflection of meaningful experiences in practice, determining the boundaries, examining the attraction for patients, and exploring self-care (21). Yoga has been introduced as a self-care and preventive method for job burnout (36). In the same direction, Agyapong et al. reported in a study that yoga in combination with cognitive behavioral therapy is effective in reducing perceived stress and burnout By positively affecting mental health, thankful events lead to a reduction in job burnout (37,38). Surprisingly, some interventions that have been widely used, such as peer coaching (Balint groups) (39) or cognitive behavioral therapy (21), did not show a significant effect on reducing job burnout and still need more research about their effectiveness. Ghasemi et al. reported that the cognitive-behavioral approach showed significant improvements for the treatment compared to the controls on the total score and three subscales (emotional exhaustion, depersonalization, and reduced personal accomplishment) at the post-intervention stage (40). The third theme was consequence-focused interventions. It was interesting to see that almost all change and acceptance-based interventions in this category effectively reduced burnout symptoms. Some interventions, such as

coping skills training, physical activity programs, professional identity development programs, workflow changes, and expanded team responsibilities, could help workers acquire skills to reduce burnout symptoms. Burnout is a complex and multidimensional issue, so utilizing multiple methods seems more effective than a single program (22). Other interventions, such as time banking and schedule changes, did not help overcome job burnout (30). In conclusion, job burnout is multidimensional, including individual and organizational factors. Some factors need to be changed, and others need to be accepted. From the overview of interventions in the last two decades, interventions that focus on accepting the emotional aspects of burnout could be the most effective. In this overview, only published systematic reviews in English were synthesized. There might be other important systematic reviews about job burnout in other languages that were not analyzed here. Another main limitation of this research was that it did not consider synonyms for job burnout, such as occupational fatigue.

Conclusion

The results revealed that the interventions related to burnout during the past decades were focused on precipitating and emotional states and consequences. However, the interventions that emphasized emotional dimensions and their acceptance were the most successful. Considering that workers suffer from high burnout, which can lead to negative effects, it is suggested that interventions based on processing and accepting emotions in the context of burnout in work environments should be given more attention.

Conflict of Interests

The authors declare no conflict of interest.

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Authors' Contributions

All authors are involved in the study design, searching data, and writing the manuscript equally.

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