

# Depression in Working Professionals – A Systematic Review of the Literature

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## Abstract

## Original Research Article

**Introduction:** Workplace depression is a debilitating public health issue with far-reaching impacts on employees, employers, and organizations. Depression among working professionals is on the rise, and is a direct and indirect threat to the overall health and well-being of the employees, the productivity of the organizations, and the economic progress of the nations as a whole. This systematic review synthesizes evidence from the existing literature regarding workplace depression and the factors implicated in the development of depression in this population. **Methods:** The author conducted a search on electronic research databases including PubMed/MEDLINE, Embase, Cochrane Central Register of Controlled Trials (CENTRAL), and Google Scholar, without language restrictions. The studies published within the last 20 years were screened based on the title and abstract. The data extraction of the eligible studies included measures of mental health symptoms, screening (If included), work-related adverse outcomes, work-related satisfaction outcomes, quality of life, help-seeking behavior, risk factors, protective factors, and non-work-related factors. The health risk factors or health-related behaviors associated with workplace depression include overweight or obesity, daily tobacco or cigarette smoking, sleep duration, alcohol consumption, low physical activity, diagnosis of diabetes mellitus, diagnosis of other chronic conditions, and overall poor health status. **Results:** The development of depression in working professionals is a complex and multifaceted interplay of personal, work-related, and health risk factors of varying degrees. The personal risk factors comprise age, gender, having a partner at home, being a family caregiver, diagnosis of a chronic illness, having children at home, history of recurrent depression, low education level, widowed or divorced status, and history of diabetes mellitus. The workplace factors include role conflict, procedural injustice, type of work setting, the duration of employment, job content, decision-making latitude, skill development, professional and emotional support by superiors and colleagues, absenteeism, burnout, occupational violence, and workplace discrimination. **Conclusion:** This systematic review pooled studies to describe the trends of workplace depression in different settings and the interplay of protective and risk factors to mediate the development of depression in working professionals. Future studies should explore the different factors that mediate workplace depression and novel strategies that aid in the alleviation of depression. Employers, policymakers, and other stakeholders should consider the implementation of screening practices for identifying depression early in the clinical stage.

**Keywords:** Workplace depression, public health issue, mental health symptoms.

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## INTRODUCTION

Depression is a mood disorder characterized by continuous feelings of loss of interest in activities and persistent sadness. According to the American Psychiatric Association's Diagnostic Statistical Manual of Mental Disorders, Fifth Edition (APA *DSM-5*), depressive disorders are classified into major depressive disorder, premenstrual dysphoric disorder, disruptive mood dysregulation disorder, persistent depressive disorder, and depressive disorder associated with another medical condition [1]. Depression is a significantly growing public health issue that is estimated to be among

the leading causes of disability across the globe [2]. Depression is associated with poor role functioning, difficult role transitions, and the development of secondary disorders [3].

Various studies have described the prevalence of workplace depression in different work settings. A claims database analysis concluded the range of clinical depression of 6.9% to 16.2% across 55 industries [4]. A recent meta-analysis concluded that the prevalence of depression among industrial workers is 21%, with the prevalence of depressive disorder in the United States, Asia, and Europe being 20%, 22%, and 18%,

respectively [5]. The prevalence of depression among helping professionals is at an alarmingly high rate, ranging from 2.5% to 91.30% [6].

The significance of workplace depression spans from the consideration of the mental health of working professionals in their physical health, emotional and mental well-being, and workplace productivity, associated with a larger impact on the national and international levels. The growing economic burden is related to workplace costs and the unmet treatment needs of the employed population [7]. The increasing depression burden has a correlation with increased absenteeism and decreased workplace productivity, resulting in lower income and even unemployment [8].

The aims and objectives of this systematic review include pooling of observational studies and clinical trials investigating the factors implicated in the development of depression in working professionals and formulating solutions for mitigating workplace depression.

## MATERIAL AND METHODS

### Search Criteria

The systematic review was conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020. The characteristics of the included studies are listed as follows: (1) Employees aged  $\geq 18$  years with diagnosed clinical depression or related mental health illness; (2) The onset of depression should occur after joining the workplace; (3) Studies should identify the risk factors and protective factors implicated in the development of depression in working professionals. All studies that did not fulfill the above-mentioned inclusion criteria were excluded during the screening process. The search criteria for the systematic review do not impose any language restriction, however, studies only from during the last 20 years were included in the review. Journal preprints and conference papers were not included in the review.

### Search Strategy and Databases

The terms/keywords used in the search strategy for the current systematic review include "workplace", "work environment", "employment", "job", "occupation", "depression", "mental health", "psychological stress", "observational study", and "epidemiological study". The search terms were combined using the relevant Boolean terms. The search strategy formulated using these keywords and Boolean terms is as follows: ("workplace" OR "work environment" OR "employment" OR "job" OR "occupational") AND ("depression" OR "mental health" OR "psychological distress") AND ("observational study" OR "cohort study" OR "cross-sectional study" OR "longitudinal study" OR "epidemiological study").

The authors utilized several databases to acquire the relevant studies in the existing literature. These include PubMed/MEDLINE, Embase, Cochrane Central Register of Controlled Trials (CENTRAL), and Google Scholar.

### Study Selection

When screened the studies identified based on the search strategy. The screening process was divided into a first screening process based on the title and abstract, followed by a second screening process comprising full-text-based articles. The outcome data extracted from the eligible studies included mental health symptoms, measures of mental health symptoms, screening (if included), work-related adverse outcomes, work-related satisfaction outcomes, quality of life, help-seeking behavior, risk factors, protective factors, and non-work-related factors associated with depression in working professionals.

## RESULTS

A total of seven studies were included in this systematic review. The baseline characteristics and the outcome measures of the included studies are listed in *Table 1*. The PRISMA diagram of the study selection process is depicted in *Figure 1*.

The studies included in this systematic review have identified individual, professional, and health-related risk factors that are implicated in the development of depression among working professionals. The individual factors identified by different studies include age, gender, having a partner at home, being a family caregiver, diagnosis of a chronic illness, children at home, history of recurrent depression, low education level, widowed or divorced status, and history of diabetes mellitus [9- 11]. The health-related risk factors associated with workplace depression include daily consumption of tobacco in the form of smoking, hazardous drinking, sleep duration, magnitude of physical activity, diagnosis of diabetes mellitus, diagnosis of other chronic conditions, and overall poor health status [9- 11]. There is however, a greater emphasis on work-related risk factors including intrapersonal, interpersonal, and leadership parameters.

The work-related factors perpetuating and exacerbating depression or depressive symptoms include the type of work setting such as private or public sector, the duration of the employment such as full-time or part-time, job content, decision-making latitude, skill development, professional and emotional support by superiors and colleagues, working longer than the expected time duration, work schedule, absenteeism, burnout, occupational violence, sustained bullying, and workplace discrimination [9- 15]. Besides these factors, role conflict and procedural injustice also mediate the development of depression in working professionals [12].

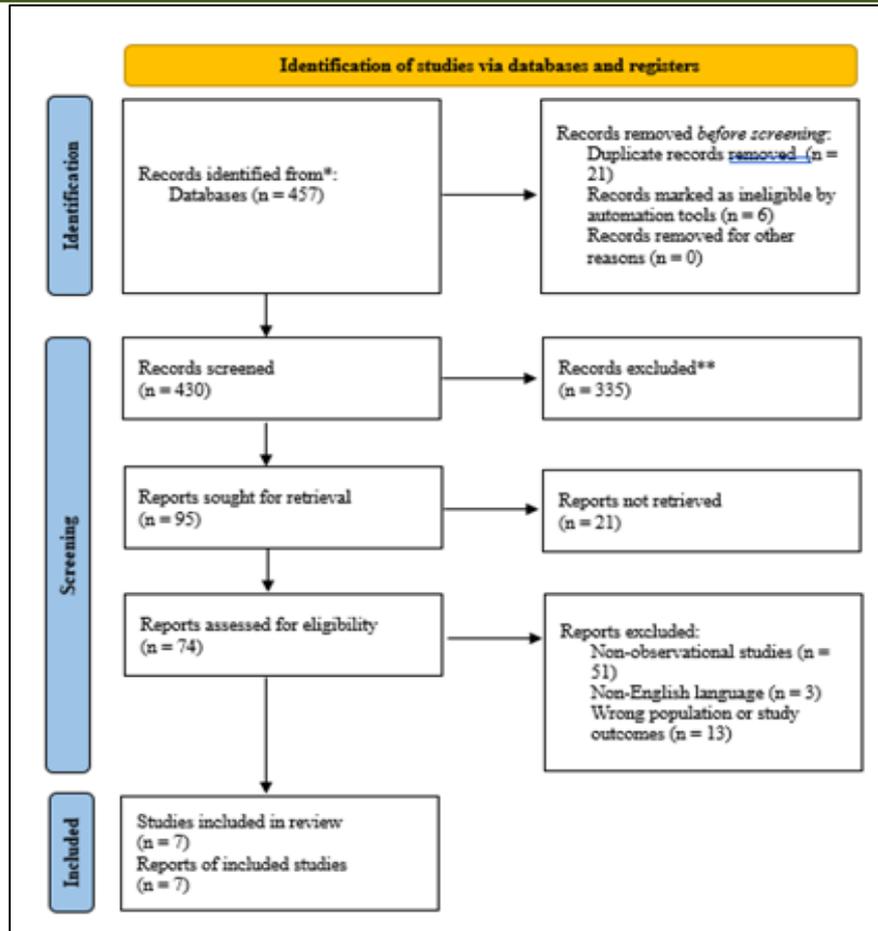


Figure 1: PRISMA Diagram

Table 1

Study	Country	Study Design	Participants	Risk Factors	Interventions	Protective Factors	Conclusion
Yang, 2021 [11]	China	Cross-sectional study	5854	The depression and anxiety scores were significantly greater among females, individuals with a low education level, and poor health status, and individuals who are divorced or widowed	-	-	The development of anxiety and depression are independently related to the disruption of the social rhythm of individuals
Finne, 2014 [12]	Norway	Prospective cohort study	3644	The increase in mental distress is related to role conflict, procedural injustice, and workplace bullying	-	The consistent protective factors identified in this study include fair leadership, positive challenge,	Various social and psychological risk factors are implicated in the prediction of mental distress

						and support from the immediately superior personnel at the workplace	
Tsuno, 2016 [15]	Japan	Questionnaire-based survey	22770	Education of the employees and exposure to physical assaults is related to work-related depression	-	-	Low socioeconomic status predisposed the study participants to physical assaults however, higher socioeconomic status is associated with the relation between physical assaults and depression
Cannavo, 2019 [14]	Italy	Cross-sectional retrospective study	323	Workplace violence and the lack of support from the management of the institution	-	-	Frequent workplace violence against healthcare professionals contributes to emotional disturbances and negative lifestyle changes
Wieclaw, 2006 [13]	Denmark	Case-control study	72226	Occupational violence exposure and work-related stress increase the risk of depression	-	-	Exposure to work-related violence and threats increases the risk of depression in both males and females
Kaur, 2022 [10]	United States	Retrospective study		The prevalence of depression was the highest in individuals with diabetes mellitus compared to non-diabetic individuals; Individuals with other chronic conditions besides diabetes had a greater prevalence of depression compared to working professionals without other conditions	-	-	Working professionals with diabetes are at an increased risk for the development of depression, particularly young professionals and females
Fond, 2022 [9]	France	Survey-based study	10325	The professional factors implicated in the development of workplace depression include burnout, decision-making latitude, and sustained workplace bullying; The individual factors relevant to the development of workplace depression include age, male gender, chronic illness, and a history of recurrent depression	-	-	This nationwide survey concluded that the prevalence of depression in the study population was 30% and that the development of depression is influenced by individual, health-related, and professional risk factors

## DISCUSSION

Mental health problems encountered in a work setting are a concerning challenge that is associated with a significant burden on the overall well-being and on the global economy. The estimated prevalence of mental health problems across the globe is 17.6%. These common mental health problems include stress-related disorders, depressive disorders, and anxiety disorders. The implications of the greater prevalence of depression in the workplace are lower rates of employment, wages, and work-related productivity [16]. Male-dominated industries have several risk factors specific to depression in the workplace. These risk factors include solitary work, poor physical conditions at the workplace, the monotonous nature of the tasks, and irregular workloads. Even within the same occupational groups, the estimated prevalence of depression may vary. The nature and severity of working conditions influence the magnitude of depression, which is influenced by demographics and psychological factors [17].

The factors associated with depression in working professionals constitute an interplay between individual, professional, and health-related risk factors. The individual risk factors underlying the development of workplace depression factors identified in this systematic review include age, gender, having a partner at home, being a family caregiver, diagnosis of a chronic illness, having children at home, history of recurrent depression, low education level, widowed or divorced status, and history of diabetes mellitus [9- 11]. Unique and overlapping health-related risk factors include overweight or obesity, daily tobacco or cigarette smoking, sleep duration, alcohol consumption, low physical activity, diagnosis of diabetes mellitus, diagnosis of other chronic conditions, and overall poor health status [9- 11]. Lastly, the work-related factors that aggravate and/or predispose a working professional to depression are role conflict, procedural injustice, type of work setting such as private or public sector, the duration of the employment such as full-time or part-time, job content, decision- making latitude, skill development, professional and emotional support by superiors and colleagues, working longer than the expected time duration, work schedule, absenteeism, burnout, occupational violence, sustained bullying, and workplace discrimination.

Based on the findings of the included studies, a substantial proportion of working professionals are suffering from depression of varying severity, regardless of their role in the respective workplace. The depression may stem from personal factors, which may or may not be directly related to the workplace, for instance, gender and age of the working professionals. This form of depressive disorders can be precipitated and aggravated by triggering factors at the workplace, which may range

from relationship with colleagues and superiors to occupational violence including sexual assault, physical assault, and bullying.

Various studies have explored the role of depression and the crude work practices in mediating the productivity and overall well-being of the employees, employers, and the organization. The relationship of depression and impaired workplace productivity is mediated by various processes. This includes reduced ability to manage stress and the work environment leads to reduced work productivity for depressed employees. Presenteeism among working professionals can be justified by the insensitivity of these professionals to the working environment, challenging the identification of stress in these individuals. In addition to the work performance, poor mental health status also affects the likelihood of individuals being employed at an organization. Changing the workplace parameters including part-time work, greater levels of autonomy over the work tasks, and other conducive working conditions can help counter the negative effects of workplace depression [18].

The fast-pace nature of organizations in the urban setting means greater frequency of long working hours and increased work-related stress. Long working hours cause shortage of sleep, which translates into limited time to recover from the employment demands, which eventually causes greater vulnerability to poor mental health. Greater employment demands, stress, and reduced sleep results in limited time to carry out leisure activities that would otherwise relieve pressure. The health-related risk behaviors may predispose an individual to depression, however, poor mental health status and depression also lead to impaired health-related behaviors such as smoking and alcohol consumption. Hence, a comprehensive approach to counter all the aspects of depression and associated symptoms is required [19].

Cognitive behavioral therapy (CBT)-based interventions are effective in mitigating the symptoms of depression and depressive disorders in working professionals [20]. Psychological interventions including E- mental health and face-to-face interventions aid in reducing the amount of sickness absence days and alleviate the depressive symptoms. The combination of antidepressant medications and psychological interventions such as psychodynamic therapy and CBT may influence the symptoms of depression, however, the level of evidence is not sufficient and the association is not clinically significant. Supervised strength exercises, relaxation, and aerobic exercises also promote improvement in depressive symptoms, reducing sickness absence from the workplace [21].

The primary interventions to mitigate workplace depression include the modification of the work environment and the job, which helps prevent the occurrence of mental health concerns. The secondary interventions are work-directed and comprise the modification of responses of employees to various job stressors. This includes the formulation and implementation of strategies to enhance the coping ability of employees and suppress the progression of mental health concerns. The tertiary interventions mitigate the mental health burden. All these interventions are complementary to one another and can be formulated into a comprehensive approach for preventing job-related stress and mental health burdens [22].

Various best practices have been identified in order to achieve optimal mental health status among employees in the workplace. Employers should create a supportive work culture and healthy work environment in order to improve mental health on an individual basis. A supportive work environment promotes self-care and greater social connectedness among the employees. Consistent leadership support is also integral to improvement in the attitudes of employers and the workplace environment. The management body of the workplace should offer supportive supervision in order to identify stress and the triggering factors. Employers should also play an active role in mediating the work-life conflicts of the employees. This will have a positive influence on job satisfaction, productivity, and physical health. The policymakers and stakeholders shall integrate technology and innovations to address mental health concerns in the workplace. To promote work-related performance, job satisfaction, and motivation, employers should offer mental health services and counseling to employees [23].

### Future Implications

Implementing strategies to counter workplace depression is crucial to the well-being and productivity of employees, employers, and organizations. Most importantly, the researchers and epidemiologists should gather feedback from the employees to understand the present concerns and requirements of the employees in order to tailor strategies accordingly. Hence, future research studies should focus on the recognition of current needs and modifiable factors that can help reduce the burden of workplace depression in different settings. Psychologists and psychiatrists shall contribute to the development of mental health platforms and mental health training. The latter comprises the training of employees in a workplace so that they can identify the signs and triggers of impaired mental health of other employees and offer prompt support to their peers. With a reduction in workplace depression, employers can observe an increase in work productivity and a decrease in absenteeism. This, in turn, reduced healthcare costs and the overall economic burden. In summary, implementing novel strategies to counter workplace

depression has several positive implications for organizations and on a global scale.

## CONCLUSION

In conclusion, this systematic review provided comprehensive evidence of the existing literature on depression among working professionals. The findings of this systematic review underscore the clinical, social, physical, and economic impact of workplace depression on individuals and the organization. Workplace depression is a multifaceted issue that is influenced by multiple work-related and non-work-related risk factors and protective factors. This systematic review has highlighted the importance of identifying depression among working professionals as a critical issue for the well-being of employees and the productivity of the organizations. The compelling disadvantages of workplace depression should form the foundation for employers, policymakers, and stakeholders to prioritize the formulation and implementation of useful solutions to counter depression and associated consequences. Future research studies should continue to investigate the different strategies to alleviate and even prevent workplace depression as well as explore the different factors and the interaction between them to mediate the development of depression in working professionals. The ultimate goal of this systematic review and future studies is to promote the welfare of individuals working in organizations and further enhance the productivity of organizations having a modern employee workforce.

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