

Review article

Strategies for promoting mental health in hospital nursing work: integrative review*

Estratégias de promoção à saúde mental no trabalho de enfermagem hospitalar: revisão integrativa

Estrategias de promoción de la salud mental em el trabajo de enfermería hospitalaria: revisión integrativa

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*Extracted from the undergraduate thesis "Strategies for promoting mental health in hospital nursing work: integrative review", Universidade Federal de São Carlos, 2023.

Abstract

Objective: identify strategies for promoting the mental health of hospital nursing workers available in the literature. **Method:** integrative review developed through access to online information sources. Studies available entirely between 2012 and 2022 in Portuguese, English or Spanish were included. Double-blind selection was carried out, as well as descriptive presentation of results and interpretation in light of the theoretical-conceptual framework. **Results:** eleven articles point to individual strategies focused on skills training, teleassistance and resilience-building programs that reduced symptoms of depression, anxiety, stress, burnout and turnover, and increased job satisfaction, healthy lifestyles, well-being and general health. **Conclusion:** strategies for promoting mental health at work maintain their focus on the individual, and do not involve organizational and collective aspects of work, denoting insufficiency by not concentrating on the central causes of the problem. Interventions should be aimed at closing this gap to promote healthier work environments.

Descriptors: Health Strategies; Nursing; Team; Hospitals; Occupational Health; Mental Health

Resumo

Objetivo: identificar estratégias de promoção à saúde mental dos trabalhadores de enfermagem hospitalar disponíveis na literatura. **Método:** revisão integrativa desenvolvida por meio de acesso a fontes de informação online. Foram incluídos estudos disponíveis na íntegra entre 2012 e 2022 em português, inglês ou espanhol. Realizada seleção em duplo-cego, apresentação descritiva dos resultados e interpretação à luz do referencial teórico-conceitual. **Resultados:** onze artigos apontam estratégias individuais focadas no treinamento de habilidades, teleassistência e programas de fortalecimento da resiliência que reduziram sintomas de depressão, ansiedade, estresse, burnout, rotatividade e elevaram satisfação no trabalho, estilos de vida saudáveis, bem-estar e saúde geral. **Conclusão:** as estratégias para promoção da saúde mental no trabalho mantêm o seu enfoque no indivíduo, e não envolvem aspectos organizacionais e coletivos do trabalho, denotando insuficiência ao não focar causas centrais do problema. As intervenções devem ser direcionadas a sanar tal lacuna para promover ambientes de trabalho mais saudáveis.

Descritores: Estratégias de Saúde; Equipe de Enfermagem; Hospitais; Saúde Ocupacional; Saúde Mental

Resumen

Objetivo: identificar estrategias de promoción de la salud mental para trabajadores de enfermería hospitalaria disponibles en la literatura. **Método:** revisión integrativa de la literatura en las bases de datos *Lilacs, Scopus, Web of Science, Cochrane Library y Medline*. Se incluyeron en la muestra estudios primarios publicados en portugués, inglés o español, disponibles en su totalidad en los últimos diez años (2012 - 2022). La selección se realizó de manera doble ciego, y los resultados se presentan de forma descriptiva e interpretados a la luz del marco teórico-conceptual adoptado. **Resultados:** once artículos señalan estrategias individuales centradas en la formación de habilidades, la teleasistencia y los programas de desarrollo de la resiliencia, que redujeron los síntomas de depresión, ansiedad, estrés, agotamiento y rotación, y aumentaron la satisfacción laboral, los estilos de vida saludables, el bienestar y la salud general. **Conclusión:** las estrategias de promoción de la salud mental en el trabajo mantienen su enfoque en lo individual, y no involucran aspectos organizativos y colectivos del trabajo, denotando insuficiencia al no concentrarse en las causas centrales del problema. Las intervenciones deberían estar encaminadas a cerrar esta brecha para promover entornos de trabajo más saludables.

Descriptor: Estrategias de Salud; Grupo de Enfermería; Hospitales; Salud Laboral; Salud Mental

Introduction

The work process in hospital nursing is characterized by an intense and fragmented rhythm established by rational organization, reflections of the influence of neoliberalism in work management, the downsizing of material resources and the qualitative and quantitative reduction of nursing staff.¹

The COVID-19 pandemic has highlighted how inadequate occupational and organizational conditions, low wages, unpreparedness and professional devaluation represent important challenges for the work process in health.²⁻³ Furthermore, it worsened the pre-existing situation,

given the increased demand for care, shortage of Personal Protective Equipment (PPE), long working hours, deficient protocols, fragile flows and inadequate professional education for the crisis scenario.⁴⁻⁶

In this sense, nursing workers face important psychosocial risks, due to the peculiarities of the activities they carry out (such as living with the pain, suffering and death of patients), in addition to the precariousness of working conditions^{5,7} and management models aimed at rationality, which can result in processes of physical and mental illness. With long working hours, overload and exposure to large-scale deaths, the pandemic further impacted daily work in the hospital context, directly affecting the multidisciplinary team, the quality of assistance and, consequently, the care received by patients.⁶

This scenario reinforces the importance of effective measures to improve the health work context, especially in nursing, since this category has been fundamental in facing the pandemic² and, historically, other crises. Therefore, it is essential that health institutions and professionals in management positions invest in efforts to formulate and apply strategies that promote a safe environment and that favor the mental health of workers. Providing safe and healthy conditions can increase worker satisfaction and appreciation, and contribute to the qualification of care, safety and patient satisfaction.

The literature contains several national and international studies,⁸⁻¹⁰ which investigated strategies to promote mental health both in the general population and in nursing workers,¹⁰⁻¹² in particular, in relation to professionals who worked on the front line of COVID-19, demonstrating the need for interventions in this area. However, few studies present systematized organizational strategies that have a positive impact on workers' health, considering the determinants of mental illness.

In this sense, the *Canadian Standards Association and Bureau du Normalisation du Québec* proposed a conceptual framework that establishes the requirements for a systematic approach to the sustainable development of psychologically healthy and safe work environments, called *Psychological health and safety in the workplace - prevention, promotion, and guidance to staged implementation*.¹³ This integrated approach to promoting mental health aims to analyze systemic causes for proposing organizational interventions, suggesting thirteen organizational or systemic factors with the potential to positively impact mental health, psychological safety and worker participation: (1) Organizational culture: set of norms, values, beliefs, meanings and expectations

that the group has in common and uses to guide its behavior and problem solving; (2) Psychological and social support: supportive social interactions between co-workers and/or supervisors, which involves workers' perception of organizational support; (3) Clear leadership and expectations: efficient leadership that supports workers; (4) Civility and respect: based on respectful and caring interaction; (5) Psychological demands: identify risks to the health and well-being of workers, enabling their management; (6) Growth and development: encouraging workers to develop interpersonal, emotional and professional skills; (7) Recognition and reward: recognition and appreciation of workers in a fair and timely manner; (8) Involvement and influence: inclusion of workers in discussions about work and decision-making; (9) Workload management: adequate time to successfully carry out tasks and assignments; (10) Engagement: occurs when workers feel motivated to perform their work; (11) Balance: harmony between the demands of personal, family and professional life; (12) Psychological protection: promotes the emotional well-being of workers and involves measures to minimize risks to mental health; and (13) Protection of physical safety: protects workers from dangers and risks related to the work environment.¹³

Therefore, the objective of this study was to identify the strategies for promoting the mental health of hospital nursing workers available in the literature.

Method

This is an integrative review of the literature, a method that enables the construction of knowledge in nursing and provides greater coverage of different study methods, summarizing the content in order to provide a better understanding of a given phenomenon or health problem.¹⁴ The review¹⁵ was structured in six stages: (1) determination of the research objective; (2) literature search; (3) data extraction; (4) critical analysis of included studies; (5) discussion of results; and (6) presentation of the integrative review. This research followed the recommendations of the PRISMA guide (*Preferred Reporting Items for Systematic Reviews and Meta Analysis*).¹⁶ The application of this instrument is justified by the importance of quality and transparency in writing review studies and the lack of a specific tool for reporting integrative review studies.

PRISMA was designed mainly for systematic reviews of studies that evaluate the effects of health interventions, however, the checklist items are applicable to reports of systematic reviews from other areas or that evaluate other types of interventions.¹⁷ Thus, all sections of PRISMA were

used to guide the review report, but topics related to the analysis of the risk of bias of each study and among them, measures of effect, analysis of possible causes of heterogeneity, sensitivity and confidence were not reported, due to the characteristics of the selected studies, which do not allow meta-analysis to be carried out. Other items such as characteristics of the studies, methods for analysis and presentation of data were applied in light of the methodological framework adopted in this investigation.

The study was guided by the following review question: "What strategies are used in the hospital context to promote the mental health of nursing workers?", developed based on the PCC mnemonic, with: Population (P) the nursing team; Concept (C) strategies for promoting mental health at work; and Context (C) the hospital environment.

The search¹⁸ was carried out in September 2022, in the online information sources *Latin American and Caribbean Health Science Literature Database (LILACS)* via *Biblioteca Virtual de Saúde*, *Web of Science (WoS)*, *Medical Literature Analysis and Retrieval System on-line (Medline)* via PubMed, *Scopus* and *Cochrane Library*, based on the controlled descriptors *Health Science Descriptors (DeCS)*/*Medical Subjects for Headings (MeSH)* and their synonyms, with Boolean terms, using the string described in Table 1.

Base	String
LILACS (Latin American and Caribbean Health Science Literature Database)	"enfermeiras e enfermeiros" OR enfermeira OR "enfermeira e enfermeiro" OR "enfermeira registrada" OR enfermeiras OR "enfermeiras registradas" OR "enfermeiro registrado" OR "enfermeiros registrados" OR "equipe de enfermagem" AND estratégias OR estratégia AND "saúde mental" OR "área de saúde mental" OR "higiene mental" OR "higiene do trabalho" OR "higiene industrial" OR "saúde dos empregados" OR "saúde dos trabalhadores" OR "saúde ocupacional" OR "segurança dos trabalhadores"
WoS (Web of Science)	(((nursing team OR Nurse OR Personnel, Nursing OR Nursing Personnel OR Registered Nurses OR Nurse, Registered OR Nurses, Registered OR Registered Nurse OR nurses) AND (Hospitals OR hospital)) AND (occupational health OR Health, Occupational OR Industrial Hygiene OR Hygiene, Industrial OR Industrial Health OR Health, Industrial OR Safety, Occupational OR Occupational Safety OR Employee Health OR Health, Employee OR Mental health OR Health, Mental OR Mental Hygiene OR Hygiene, Mental)) AND (strategies OR strategy)) AND (Health promotion OR Promotion, Health OR promotions, Health OR Promotion of Health OR Health Promotions OR Promotional Items OR Item, Promotional OR Items, Promotional OR Promotional Item OR Wellness Programs OR Program, Wellness OR Programs, Wellness OR Wellness Program OR Health Campaigns OR Campaign, Health OR Campaigns, Health OR Health Campaign)
Medline (Medical Literature Analysis and Retrieval System on-line)	(((("nursing team" OR nurse OR "Personnel, Nursing" OR "Nursing Personnel" OR "Registered Nurses" OR "Nurse, Registered" OR "Nurses, Registered" OR "Registered Nurse" OR nurses) AND (hospitals OR hospital)) AND ("occupational health" OR "Health, Occupational" OR "Industrial Hygiene" OR "Hygiene, Industrial" OR "Industrial Health" OR "Health, Industrial" OR "Safety, Occupational" OR "Occupational Safety" OR "Employee Health" OR "Health, Employee" OR "Mental health" OR "Health, Mental" OR "Mental Hygiene" OR "Hygiene, Mental")) AND (strategies OR strategy)) AND ("Health promotion" OR "Promotion, Health" OR "promotions, Health" OR "Promotion of Health" OR "Health Promotions" OR "Promotional Items" OR "Item, Promotional" OR "Items, Promotional" OR "Promotional Item" OR "Wellness Programs" OR "Program, Wellness" OR "Programs, Wellness" OR "Wellness Program" OR "Health Campaigns" OR "Campaign, Health" OR "Campaigns, Health" OR "Health Campaign")
Scopus	("nursing team" OR nurse OR "Personnel, Nursing" OR "Nursing Personnel" OR "Registered Nurses" OR "Nurse, Registered" OR "Nurses, Registered" OR "Registered Nurse" OR nurses) AND (hospitals OR hospital) AND ("occupational health" OR "Health, Occupational" OR "Industrial Hygiene" OR "Hygiene, Industrial" OR "Industrial Health" OR "Health, Industrial" OR "Safety, Occupational" OR "Occupational Safety" OR "Employee Health" OR "Health, Employee" OR "Mental health" OR "Health, Mental" OR "Mental Hygiene" OR "Hygiene, Mental") AND (strategies OR strategy) AND ("Health promotion" OR "Promotion, Health" OR "promotions, Health" OR "Promotion of Health" OR "Health Promotions" OR "Promotional Items" OR "Item, Promotional" OR "Items, Promotional" OR "Promotional Item" OR "Wellness Programs" OR "Program, Wellness" OR "Programs, Wellness" OR "Wellness Program" OR "Health Campaigns" OR "Campaign, Health" OR "Campaigns, Health" OR "Health Campaign")
Cochrane Library	nursing team OR Nurse OR Personnel, Nursing OR Nursing Personnel OR Registered Nurses OR Nurse, Registered OR Nurses, Registered OR Registered Nurse OR nurses AND Hospitals

	<p><i>OR hospital AND occupational health OR Health, Occupational OR Industrial Hygiene OR Hygiene, Industrial OR Industrial Health OR Health, Industrial OR Safety, Occupational OR Occupational Safety OR Employee Health OR Health, Employee OR Mental health OR Health, Mental OR Mental Hygiene OR Hygiene, Mental AND strategies OR strategy AND Health promotion OR Promotion, Health OR promotions, Health OR Promotion of Health OR Health Promotions OR Promotional Items OR Item, Promotional OR Items, Promotional OR Promotional Item OR Wellness Programs OR Program, Wellness OR Programs, Wellness OR Wellness Program OR Health Campaigns OR Campaign, Health OR Campaigns, Health OR Health Campaign</i></p>
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Table 1 - Search strategy/string in scientific literature. São Carlos, SP, Brazil, 2023.

The inclusion criteria were articles published in Portuguese, English or Spanish, with a time limit of the last ten years (2012 – 2022). The ten-year time frame was applied to obtain recent strategies, considering changes in the context of health work in recent years, including those caused by the Covid-19 pandemic. Exclusion criteria were review studies of any nature. The selection of articles was carried out double-blind, using the Rayyan application,¹⁹ in two stages: reading the titles and abstracts of the publications identified by the search; and evaluation of pre-selected studies by reading them entirely, applying the inclusion and exclusion criteria. Discrepancies were handled by a third reviewer.

The analysis of the included articles was carried out descriptively in double-blind, using an Excel matrix. Data characterizing the studies (year of publication, author, country, objective, type of study, target audience, study limitations, strategies, mental health aspect promoted, actions taken, necessary resources and results presented) and outcomes were extracted. The data were organized based on the theoretical-conceptual framework of the thirteen organizational factors with the potential to positively impact mental health in hospital nursing work.¹³

Results

The searches resulted in 412 productions and, after screening and analysis, a final sample of 11 articles was obtained, as shown in Figure 1.

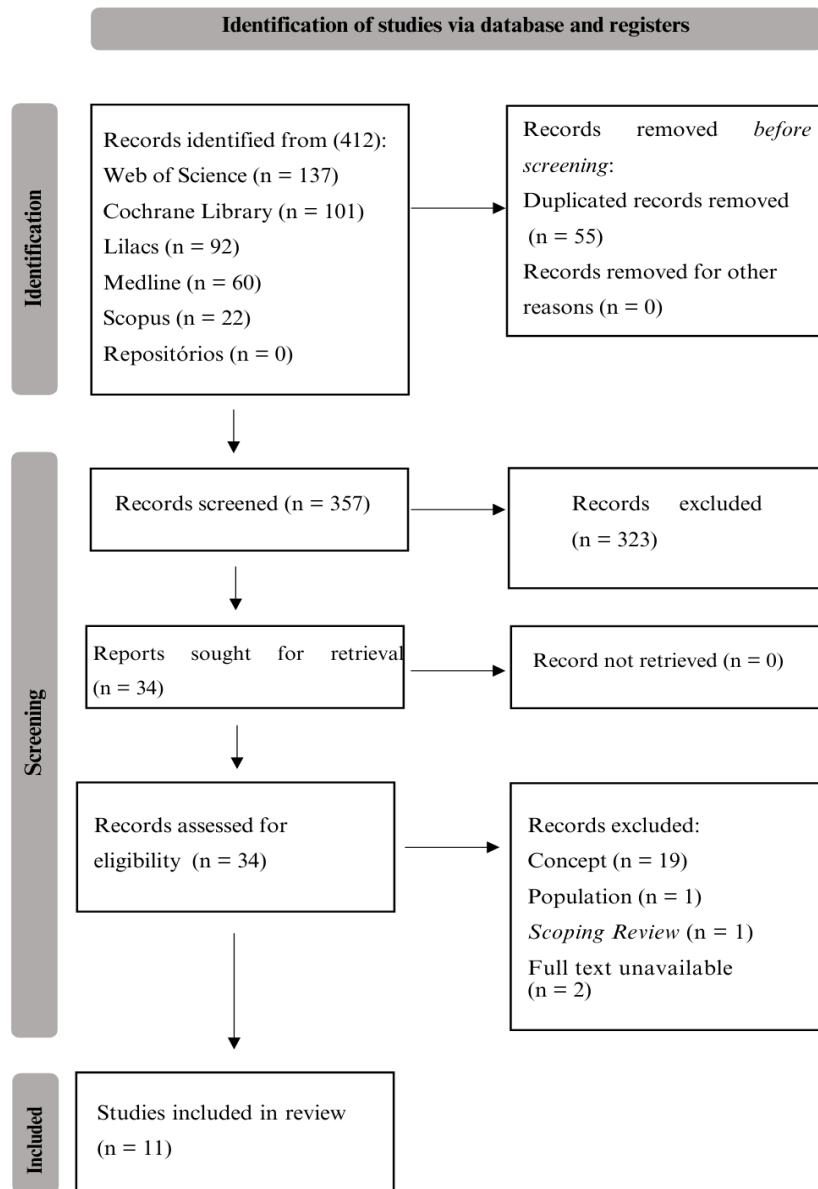


Figure 1 - Flowchart to demonstrate article selection from online information sources
Source: Page et al, 2020.¹⁶

The majority of articles were developed in Brazil (four articles),²⁰⁻²³ followed by Australia,²⁴⁻²⁵ Netherlands,²⁶⁻²⁷ China,²⁸ United States²⁹ and Japan.³⁰ Regarding the methods used, five developed experimental or quasi-experimental research,^{22,26-27,29-30} two used a qualitative approach^{21,23} and the others: experience report,²⁰ quantitative investigative study,²⁸ instrument validation²⁴ and evaluative,²⁵ with one article each. Additional information about sample characterization is described in Table 2.

Country/ Year	Objective	Sample	Results
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Brazil, 2022 ²⁰	Describe the experience of planning, executing and evaluating an ethical-emotional support service for nursing professionals in the face of the Covid-19 pandemic.	241 nursing workers (assistants, technicians and nurses).	Support through telephone calls and messages via communication application resulted in the reduction of negative feelings, increased perception to identify potential threats and “trigger” contexts, personal appreciation, self-knowledge and self-care of the participants. The service was well evaluated by participants, using the <i>Net Promoter Score</i> (NPS) tool, with a score of 79%.
China, 2021 ²⁸	Investigate the mediating effect of resilience in the relationship between nurses' perceived organizational support and fatigue.	476 nurses.	Perceived organizational support reduced fatigue in nurses, through the mediating effect of resilience — a significant negative relationship with mental (-0.112), physical (-0.132) and emotional (-0.141) fatigue.
Brazil, 2021 ²¹	Understand the perception of art therapy for the hospital nursing team.	Six nursing workers.	The speeches indicated that teamwork, moments of listening, relaxation and exchanging experiences are positive for overcoming adversities in the workplace and promoting workers' mental health.
United States, 2020 ²⁹	Evaluate the effect of six months of the MINDBODYSTRO NG intervention in healthcare professionals on the mental health, healthy behavior and lifestyle, and job satisfaction of newly licensed nurses participating in a nursing residency program.	89 newly licensed nurses.	The comparative analysis between the intervention group (MBS) and the control group (CG) after six months indicated lower rates of depressive symptoms, anxiety and perceived stress, and a greater presence of healthy behaviors and job satisfaction in the MBS: 1. depressive symptoms: MBS = 3.31 (normal) and CG=5.65 (moderate); 2. anxiety: MBS=4.49 (normal) and CG=5.59 (moderate); 3. perceived stress: MBS=13.18 and CG=13.44; 4. job satisfaction: MBS=21.23 and CG=19.53; 5. healthy lifestyle: MBS=59.28 and CG=56.91. The last three tests do not indicate the normal/moderate/excessive classification.
Brazil, 2018 ²²	Compare occupational stress levels among nursing workers in the surgical suite before and after the “well-being room”	60 nursing workers in the surgical suite.	The intervention did not significantly reduce levels of occupational stress, despite participants showing a decrease in the perception of psychological demand, increased control and social support received at work.

	intervention.		
Brazil, 2017 ²³	Describe the defensive strategies used by nursing workers in pediatric oncology when faced with suffering at work.	20 nursing workers.	Individual defensive strategies (conformity, distancing, rationalization and refuge in leisure time) and collective (speaking and listening, collective aggregation, reframing suffering and searching for a new meaning in life) were used by participants when faced with suffering at work, but there was no assessment of the impact on the health of these workers.
Australia, 2017 ²⁴	Use a Delphi panel to determine the relative importance and feasibility of workplace health promotion interventions to promote and support the health of the Australian nursing and midwifery workforce.	11 leaders from nursing and healthcare organizations.	Leaders agreed that interventions to promote mental health (mental health training for managers and supervisors; providing stress management and resilience training for high-risk workers; flexible working practices; free workplace counseling and regular mental health well-being checks) should be prioritized, followed by healthy eating, physical activity and smoking cessation. To carry out this classification, they ranked the mental health strategies based on an interval scale with five classifications, from very important/feasible to not important/feasible.
Japan, 2015 ³⁰	Evaluate the effectiveness of Omega-3 fatty acids for hospital nurses.	75 nurses, with IG=39 and CG=36	It was not possible to attest to the effectiveness of omega-3 in reducing anxiety, depression and work efficiency assessed by the Hospital Anxiety and Depression Scale (HADS-ranging from 0 to 42 points, higher scores indicating more symptoms). The intervention lasted 90 days and participants in the Intervention Group (IG) received capsules containing 1200 mg of eicosapentaenoic acid (EPA) and 600 mg of docosahexaenoic acid (DHA), while the Control Group (CG) received placebo capsules containing 47% rapeseed oil, 25% soybean oil, 25% olive oil and 3% fish oil. Effectiveness was assessed at two moments, using the HADS: — 26 weeks after the start of the intervention: IG=6.32 points and CG=6.81 points. — 52 weeks after the start of the intervention: IG=5.85 and CG=8.32.
Netherlands, 2014 ²⁶	Explore the effectiveness of a worker health surveillance program that offers screening, personalized feedback and online interventions targeting mental health at work.	366 workers (263 nurses), with EMH=178 (129 nurses) and CG=188 (134 nurses)	The online mental health intervention (EMH) positively improved the mental health of the IG (0.37 Cohen's coefficient between groups — moderate). The groups were evaluated at two post-intervention moments, using the scales <i>The mental health continuum - short form</i> (MHC-SF/median score in the population 2.98) and WHO-5 (maximum score 100): — <u>3 months post-intervention</u> : MHC-SF: EMH = 3.68; CG= 3.30; WHO-5: EMH = 70.1; CG= 67.3; — <u>6 months post-intervention</u> : MHC-SF: EMH = 3.65; CG= 3.33;

			WHO-5: EMH = 67.8; CG= 67.9;
Australia, 2012 ²⁵	Report the impact of an intervention aimed at reducing workload, stress and turnover in nurses in two Northern Territory hospitals.	484 nurses.	The intervention led to an overall reduction in workplace stress, reduced turnover in one of the hospitals, there was a significant improvement in psychological health and job satisfaction, however, job stress levels in nurses and midwives remained high. The groups were evaluated at two post-intervention moments, using the general health questionnaire (GHQ-12) scales (maximum score 36), Maslach burnout inventory (MBI) (maximum score 90) and job satisfaction (7-point scale: 0 - extremely dissatisfied to 6 - extremely satisfied). <u>Wave 1 (2008)</u> : GHQ-12: 14.52; MBI: 28.94; job satisfaction: 3.70. <u>Wave 2 (2010)</u> : GHQ-12: 12.33; MBI: 20.77; job satisfaction: 4.06.
Netherlands, 2012 ²⁷	Compare two strategies (online and in-person assistance) for a mental worker health surveillance module on the functioning of work and the relationship between work and mental health.	369 workers (292 nurses), with EMH = 178 (140 nurses) and OP = 191 (152 nurses)	The EMH groups with algorithm support and face-to-face consultation with an occupational physician (OP) obtained equal scores for the questionnaires: impaired functioning at work, symptoms in four dimensions, impact of events scale (Dutch version) and work ability index. For the Dutch questionnaire on work experience and evaluation (maximum score 100, the higher the score the higher the level of work-related fatigue), the EMH and OP groups scored 34 and 33, respectively. No statistically significant differences were identified. Regarding impaired work functioning, both EMH and OP groups improved after 3 months, with no statistically significant differences between them (30% of participants in the EMH group and 46% in the OP group improved).

Table 2 - Characterization of the study sample. São Carlos, SP, Brazil, 2023.

The 11 studies encompass a sample of 1,877 nursing workers. Two articles²⁶⁻²⁷ included the same participants (EMH, OP and CG groups), being considered the largest sample of each group for the total count of nursing workers. Nine articles^{20-25,28-30} were developed exclusively with nursing workers, and two²⁶⁻²⁷ with nurses and other health workers (physiotherapists and radiotherapists).

Seven articles^{22,25-30} used scales with statistical analysis and/or mixed data analysis, one²⁰ analyzed the data based on a satisfaction survey, and one²¹ individual interviews using the content analysis technique.

The interventions used in six articles^{20,21,25-27,29} presented positive and statistically significant results for workers' mental health. The interventions of two studies^{22,30} did not demonstrate a significant improvement in mental health compared to the control groups.

The strategies proposed by the studies were analyzed in light of the theoretical framework

in relation to the thirteen organizational or systemic factors that have the potential to have a positive impact on mental health. The factors civility and respect; recognition and reward; involvement and influence; engagement; psychological protection and protection of physical safety were not addressed in the strategies identified in the sample, as shown in Figure 2.

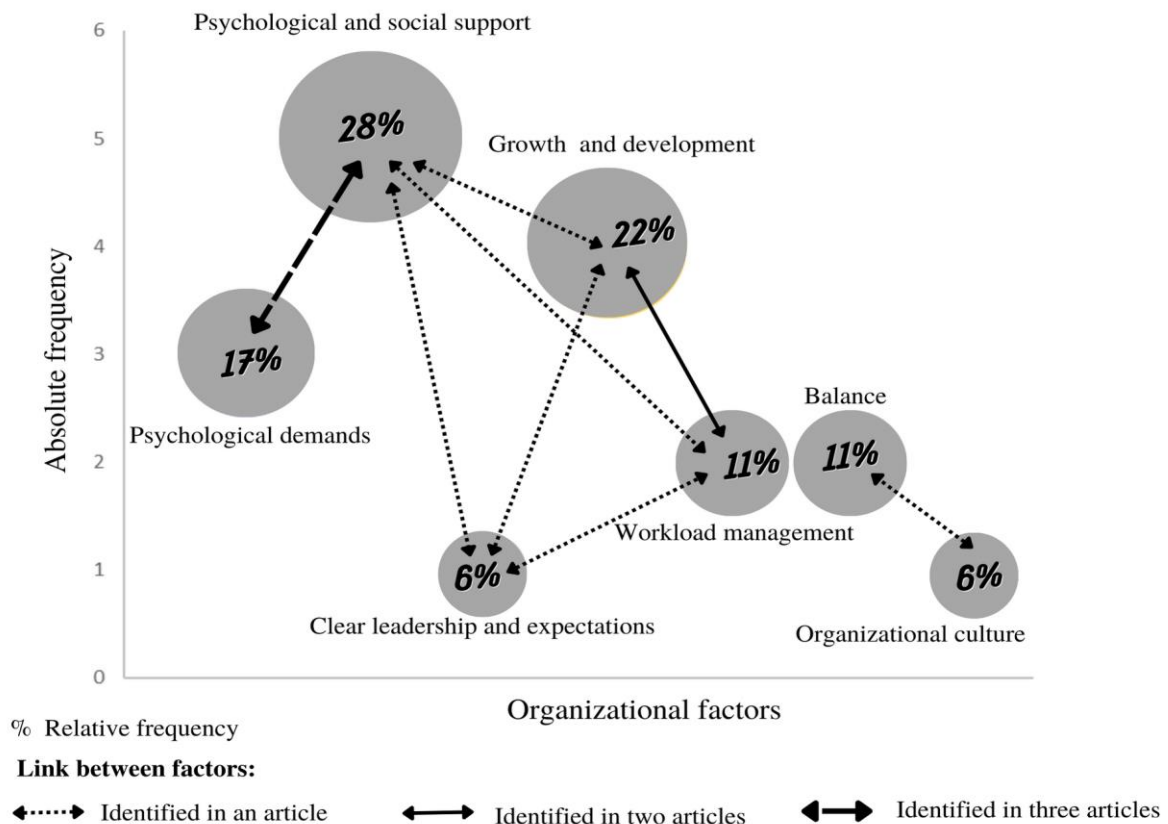


Figure 2 - Absolute frequency (y-axis) and relative frequency (bubble size) for each organizational factor (x-axis), and link between the factors identified in the same scientific article. São Carlos, SP, Brazil, 2023.

The study³⁰, of which strategy consisted of combining the daily use of omega-3 capsules with a mindfulness-based stress management program or offering a psychoeducational leaflet, did not describe the application of the program and leaflet and, therefore, could not be framed in none of the organizational factors, due to the physiological approach to the effects of the omega-3 capsule. The findings characterizing the strategies of the others are described in Table 3.

Organizational factors	Strategy
Psychological and Social Support; Psychological demands	<p>On-demand psychological telecare: the worker makes an appointment via the website, and is assisted via phone call or messaging app by a team of nurses qualified in mental health assistance at available dates and times. Demand is defined by the worker. Remote risk classification is based on the content of the conversation, vocal performance, profile image in a messaging application and clinical parameters (inconsolable crying, reports of suicidal ideation, self-mutilation, self-medication or substance abuse). However, the regularity and duration of care depend on the engagement and bond established.²⁰</p>
	<p>An online questionnaire to identify impaired functioning at work, distress, work-related fatigue, alcohol use, depression, suicide risk, anxiety, panic disorder, and post-traumatic stress was sent to all participants. According to the results, participants were invited to carry out an online mental health intervention module (EMH), which were: <i>Psyfit</i> (aimed at improving mental fitness, four-week module); <i>Strong at work</i> (aimed at learning skills to deal with stress at work, eight-week module); <i>Colour your life</i> (aimed at combating depressive symptoms, eight-week module); <i>Don't panic online</i> (aimed at reducing panic symptoms for subclinical and mild cases, eight-week module); and <i>Drinking less</i> (with the aim of reducing risky behavior, six-week module).²⁶⁻²⁷</p>
	<p>An online questionnaire to identify impaired functioning at work, distress, work-related fatigue, alcohol use, depression, suicide risk, anxiety, panic disorder, and post-traumatic stress was sent to all participants. Workers who presented impaired work functioning and/or mental health complaints were invited for preventive face-to-face care with the occupational physician (OP).²⁷</p>
Psychological and Social Support	<p>Evaluate the use of resilience as a mediator between perceived organizational support and fatigue (mental/physical/emotional).²⁸</p>
Growth and Development	<p>Art therapy workshops: holding 10 art therapy workshops on site and during working hours, with the following topics: 1) Reading manuscript for presentation (establishing a bond and providing autonomy); 2) Drawing and guided meditation (self-knowledge); 3) Tale Seven Spools of Thread and elaboration of manual work (self-knowledge and strengthening bonds with the team); 4) Mandala construction (empowerment); 5) Reading the myth of the goddess Athena (empowerment); 6) Reading the myth of the goddess Artemis and producing a protective cover (communication and expression); 7) Reading the tale of the goddess Persephone and creating a drawing (communication and expression); 8) Reading the Chinese parable of the cracked pot (self-esteem and resilience); 9) Reading the story of Aphrodite and producing a mirror frame (self-esteem); 10) Closing and exhibition of productions during a time of celebration (reflection).²¹</p>
	<p>MINDBODYSTRONG Program: eight weekly sessions adapted from the Creating</p>

	<p>Opportunities for Personal Empowerment (COPE) intervention focusing on three areas: 1) Taking care of the mind: developing cognitive-behavioral skills to think, feel and behave, promoting self-esteem, gratitude, change management, goal setting, guided imagination, effective communication, problem solving, breathing exercises and healthy management of emotions; 2) Taking care of the body: developing cognitive-behavioral skills to promote physical health such as nutrition, physical activity, healthy eating, strength and flexibility training, self-determined nutrition and physical activity goals; 3) Building skills: developing cognitive-behavioral skills to deal with stressful situations, stress, healthy coping, strategies for overcoming problems, sleep diary and establishing long-term goals.²⁹</p>
Balance	<p>“Wellness room” program: offering the program for six months, at the workplace and during working hours, with the following activities: workplace gymnastics (performed daily for 15 minutes); “beauty day” (held monthly with aesthetic care, breakfast and cinema session with snacks); ear acupuncture (performed monthly); and lectures and workshops on managing and coping with stress (held monthly lasting two hours).²²</p>
Organizational culture; Balance	<p>Focus groups for workers to share individual defensive strategies, such as: separation between personal and professional life, distancing, rationalization and refuge in leisure time; and collective defensive strategies, such as moments of speaking and listening, collective aggregation, reframing suffering and searching for a new meaning for life.²³</p>
Psychological and Social Support; Clear Leadership and Expectations; Growth and Development; Workload management	<p>The Delphi panel²⁴ indicated 11 strategies, including: 1) training: offering training for stress management and development, resilience for workers at high risk; providing mental health awareness training to the staff; providing training for managers and supervisors on ways to identify mental illness and support workers in recovery. 2) mental health programs: offering access to mental health programs for teams; offer mindfulness-based programs to reduce stress in the workplace; peer support programs with mentors trained in workplace behavior change; offer skill-building programs. 3) regular and free workplace counseling with a psychologist or counselor; regularly check and support workers for mental health wellbeing; offer incentives for participation in group interventions in the workplace. 4) facilitate flexible working practices.</p>
Growth and Development; Workload management	<p>Implementation of a workload intervention for five years, involving: 1) development of a tool to assess nursing workload; 2) creation of new jobs where a shortage of professionals and job demand requirements were identified; 3) long-term recruitment to increase the number of nurses employed; 4) offering continuous professional development through the expansion of the postgraduate program and the creation of short courses; 5) recruitment campaign for recent graduates and permanent employees.²⁵</p>

Table 3 - Characterization of strategies and their activities according to the organizational factor proposed by the standard *Psychological health and safety in the workplace - prevention, promotion, and guidance to staged implementation*.¹³ São Carlos, SP, Brazil, 2023.

Eleven studies applied interventions aimed at the individual, with an emphasis on physiology,³⁰ promoting balance,²² growth^{21,24-25,29} and organizational support with individual

care.^{20,24,26-28} Only three studies²³⁻²⁵ presented strategies with individual and collective actions, in which the collective focus was present on defensive strategies²³ and to reduce workload.²⁴⁻²⁵

Two studies reported the hospital's organizational support in the proposed strategies through the researcher's link with the study site,^{23,29} such as providing a specific workplace to carry out activities;²² establishing a partnership with a class regulatory body to implement actions,²⁰ disseminating the research through the administrative system;²⁵ making an occupational physician available for care in the hospital itself;²⁷ enabling the worker to carry out activities during working hours without charge.²¹⁻²³ In other studies,^{21,24,26,28,30} the level of involvement of the hospital with the implementation of strategies in the workplace was not clearly presented.

Discussion

Studies have shown that interventions aimed at promoting mental health at work contribute to reducing symptoms of depression, anxiety, stress,²⁹ burnout³ and turnover;²⁵ and to increasing job satisfaction;^{25,29} improvements in a healthy lifestyle,²⁹ well-being,²⁶ general health,²⁵ professional performance (although with low statistical significance),²⁷ and positive perception of actions by participants.²⁰⁻²¹

Most articles presented strategies focused on the individual, such as offering skills training programs, teleservices and strengthening resilience, similar to what is pointed out in the literature.¹² Although some studies²¹⁻²² have indicated the employer's intention to support actions to promote mental health at work, there is some uncertainty about the appropriate concepts and strategies, as well as the way to implement them,³¹ which could explain, in part, the recurrence of strategies focused on the individual, low complexity and low cost.

On the other hand, there are signs suggesting the employer's lack of involvement in promoting mental health at work,³² which may signal an omission of its responsibility towards workers,³³ considering work as a social determinant of the health-disease process.

The Canadian standard, adopted as a theoretical framework, reinforces the influence of organizational factors in promoting mental health at work, with these components being strongly rooted in teamwork and in the organization itself.¹³ In this sense, although it is important to intervene in the demands of each worker, it is essential to address the problem from a systemic perspective, with an emphasis on organizational changes that are, in fact, drivers of the construction of a healthy and safe work environment that promotes well-being at work.

Organizational factors, such as availability of material and human resources, workload of daily activities, patient demand and the physical conditions of the work environment contribute to the mental illness of the nursing team.¹¹ Therefore, it is necessary to recognize which factors present in the work context can cause or worsen mental illness, and then act to eliminate or mitigate it.

In this sense, the implementation of strategies at different organizational levels with institutional support is essential for tackling this problem, aligned with strategic objectives and focusing on continuous improvement.¹³ Despite this relevance, few studies clearly describe the level of employer involvement in implementing strategies. Among those that describe it, there is recognition of perceived organizational support,^{25,28} social support from peers^{22,25} and supervisors,²⁵ and the involvement of senior management²⁴ as essential for the success of actions.

When analyzing the organizational factors highlighted by the Canadian framework, it was identified that the majority of strategies addressed “psychological and social support” (28%) and “growth and development” (22%) aimed at prevention, identification and monitoring of illnesses and/or mental illnesses in workers. These findings came from a review that identified individualized support actions, training and other practices of this nature as the main strategies for promoting mental health at work in the context of the COVID-19 pandemic.^{12,34}

On the other hand, the factors that appear least are “clear leadership and expectations” and “organizational culture” (both mentioned in a study), despite the recognition of the influence of leaders in the construction of organizational culture.³⁵ A similar finding was observed in a study that identified a high correlation between the factors “organizational culture”, “clear leadership and expectations” and “civility and respect” — the latter not addressed in the articles included in this review,³⁶ pointing to a gap to be explored.

The factors “recognition and reward”, “involvement and influence”, “engagement”, “psychological protection” and “protection of physical safety” were also not addressed in the strategies found. The factors “engagement”, “involvement and influence” and “protection of physical safety” were referred to in another study as organizational factors of little strength and concern for nursing workers in their workplaces, which could justify the low identification of strategies focusing on these factors. However, the same study points to “psychological protection” and “recognition and reward” as high-risk organizational factors, indicating another gap to be explored.³⁶

Most strategies address more than one organizational factor, strengthening the premise that the combination of factors can increase the potential for promoting a psychologically safe work environment.¹³ The literature has shown a high correlation between the organizational factors proposed by the standard,³⁶⁻³⁷ and only the “engagement” factor seemed not to be significantly related to any other factor, considering nursing.³⁶ Correlation results may indicate conceptual overlap of organizational factors,³⁶ supporting the standard's suggestion that organizational factors may appear alone or in combination in real work contexts.¹³

It is important to clarify that no article included in this review used the Canadian standard as a theoretical reference for its strategies, with the classification of results being an interpretation made by the authors, which was powerful for comprehensively analyzing the findings.

This review has limitations regarding the number of studies included, and the restricted time frame may explain the small, but current, number of primary studies. Even so, the results found were fundamental for dialogue and understanding on the topic.

This study advances the production of scientific knowledge by presenting a synthesis of strategies for promoting the mental health of nursing workers that cover different organizational factors, differentiating itself from other reviews that focused on a single aspect of mental health, in the context of the COVID-19 pandemic or another theoretical perspective.

Conclusion

The findings show strategies for promoting mental health in hospital nursing work, such as skills training, individualized assistance, various programs (strengthening resilience, attention, defensive strategies, among others) and collective aspects of work (workload and flexible work practices). The strategies found indicate an individual approach and mostly focused on “psychological and social support” and the “growth and development” of the worker, focusing on education actions to strengthen resilience and surveillance/control of injuries by qualified professionals and/or by the organization itself. Collective actions, with greater organizational co-responsibility, characterize a gap and seem to be urgent for proposing interventions that reach organizational factors that are rarely addressed in a sustainable way in hospital services. New studies on the implementation, evaluation and effectiveness of these and other strategies in promoting mental health at work are powerful.

The difficulties faced by nursing workers are well known and gained greater visibility with

the pandemic, especially regarding the impacts of work on these people's lives. It is necessary to move forward in transforming this reality, with the recognition that work can determine or worsen psychosocial and mental aspects, and it is the employer's responsibility to face and intervene in predisposing factors.

References

1. Souza NVDO, Gonçalves FGA, Pires AS, David HMSL. Neoliberalist influences on nursing hospital work process and organization. *Rev Bras Enferm.* 2017;70(5):912-9. doi: 10.1590/0034-7167-2016-0092
2. Spagnol CA, Pereira MS, Cunha CT, Pereira KD, Araújo KLS, Figueiredo LG, et al. Holofotes acesos durante a pandemia da covid-19: paradoxos do processo de trabalho da enfermagem. *Reme Rev Min Enferm [Internet].* 2020 [acesso em 2022 set 26];24. Disponível em: http://www.revenf.bvs.br/scielo.php?script=sci_arttext&pid=S1415-27622020000100606
3. Miranda FMD, Santana LL, Pizzolato AC, Saquis LMM. Working conditions and the impact on the health of the nursing professionals in the context of covid-19. *Cogitare Enferm.* 2020; 25:e72702. doi: 10.5380/ce.v25i0.72702
4. Souza NVDO, Carvalho EC, Soares SSS, Varella TCMYML, Pereira SRM, Andrade KBS. Nursing work in the COVID-19 pandemic and repercussions for workers' mental health. *Rev Gaúcha Enferm.* 2021;42(Spec No):e20200225. doi: 10.1590/1983-1447.2021.20200225
5. Humerez DC, Ohi RIB, Silva MCN. Mental health of Brazilian nursing professionals in the context of the COVID-19 pandemic: action of the nursing federal council. *Cogitare Enferm.* 2020;25:e74115. doi: 10.5380/ce.v25i0.74115
6. Ramos-Toescher AM, Tomaschewisk-Barlem JG, Barlem ELD, Castanheira JS, Toescher RL. Saúde mental de profissionais de enfermagem durante a pandemia de COVID-19: recursos de apoio. *Esc Anna Nery.* 2020;24(N Esp). doi: 10.1590/2177-9465-ean-2020-0276
7. Scozzafave MCS, Leal LA, Soares MI, Henriques SH. Psychosocial risks related to the nurse in the psychiatric hospital and management strategies. *Rev Bras Enferm.* 2019;72(4):834-40. doi: 10.1590/0034-7167-2017-0311
8. Gayed A, Milligan-Saville JS, Nicholas J, Bryan BT, Lamontagne AD, Milner A, et al. Effectiveness of training workplace managers to understand and support the mental health needs of employees: a systematic review and meta-analysis. *Occup Environ Med.* 2018;75:462-70. doi: 10.1136/oemed-2017-104789
9. Enns J, Holmqvist M, Wener P, Halas G, Rothney J, Schultz A, et al. Mapping interventions that promote mental health in the general population: a scoping review of reviews. *Prev Med (Baltim).* 2016;87:70-80. doi: 10.1016/j.ypmed.2016.02.022
10. Rodrigues CCFM, Alves KYA, Oliveira LV, Salvador PTCO. Coping strategies for occupational stress used by nursing professionals in the hospital environment: scoping review. *Online Braz J Nurs.* 2020;19(4). doi: 10.17665/1676-4285.20206408
11. Lopes LMS, Sousa PVC, Passos SG. Saúde mental dos profissionais de enfermagem que atuam na linha de frente da covid-19: revisão literária. *Rev JRG Estud Acad.* 2022;5(10):294-304. doi: 10.5281/zenodo.6946312
12. Santos SVB, Santana ME. Principais estratégias usadas para promoção à saúde dos profissionais de enfermagem na pandemia da Covid-19. *Res Soc Dev.* 2021 set 16;10(12):e164101219882. doi: 10.33448/rsd-v10i12.19882
13. Canadian Standards Association (CSA), Bureau de normalisation du Québec (BNQ). Psychological health and safety in the workplace - Prevention, promotion and guidance to staged implementation [Internet]. 2013

[cited 2022 set 26]; Available from: https://www.healthandsafetybc.ca/wp-content/uploads/2016/04/CAN_CSA-Z1003-13_BNQ_9700-803_2013_EN.pdf

14. Whittemore R, Knafk K. Methodological issues in nursing research The integrative review: updated methodology. *J Adv Nurs*. 2005;52(5):546-53.
15. Souza MT, Silva MD, Carvalho R. Integrative review: what is it? How to do it? Einstein (São Paulo). 2010;8(1):102-6. doi: 10.1590/s1679-45082010rw1134
16. Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ*. 2021 Mar;372:n71. doi: 10.1136/bmj.n71
17. Page MJ, Moher D, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. PRISMA 2020 explanation and elaboration: updated guidance and exemplars for reporting systematic reviews. *BMJ*. 2021;372:n160. doi:10.1136/bmj.n160
18. Miranda FM, Santos BV, Mininel VA. Estratégias de promoção à saúde mental no trabalho em enfermagem hospitalar. *DMPTool*. DMPHub. 2023. doi: 10.48321/D1V579
19. Ouzzani M, Hammady H, Fedorowicz Z, Elmagarmid A. Rayyan—a web and mobile app for systematic reviews. *Systematic Reviews*. 2016;210. doi: 10.1186/s13643-016-0384-4
20. Amaral GG, Silva LS, Oliveira JV, Machado NM, Teixeira JS, Passos HR. Suporte ético-emocional à profissionais de enfermagem frente à pandemia de COVID-19: relato de experiência. *Esc Anna Nery*. 2022;26(N Esp). doi: 10.1590/2177-9465-ean-2021-0234
21. Caldi JA, Soares MH, Martins JT, Sei MB, Vilar LDJML, Galdino MJQ, et al. Percepção da arteterapia como recurso à promoção da saúde mental da equipe de enfermagem hospitalar. *Enferm Foco*. 2022 maio 05;12(6). doi: 10.21675/2357-707x.2021.v12.n6.4887
22. Jacques JPB, Ribeiro RP, Scholze AR, Galdino MJQ, Martins JT, Ribeiro BGA. Wellness room as a strategy to reduce occupational stress: quasi-experimental study. *Rev Bras Enferm*. 2018;71 (Suppl 1):483-9. doi: 10.1590/0034-7167-2017-0572
23. Viero V, Beck CLC, Coelho APF, Pai DD, Freitas PH, Fernandes MNS. Pediatric oncology nursing workers: the use of defensive strategies at work. *Esc Anna Nery*. 2017 ago 28;21(4). doi: 10.1590/2177-9465-ean-2017-0058
24. Perry L, Nicholls R, Duffield C, Gallagher R. Building expert agreement on the importance and feasibility of workplace health promotion interventions for nurses and midwives: a modified Delphi consultation. *J Adv Nurs*. 2017 Nov;73(11):2587-99. doi: 10.1111/jan.13345
25. Rickard G, Lenthall S, Dollard M, Opie T, Knight S, Dunn S, et al. Organisational intervention to reduce occupational stress and turnover in hospital nurses in the Northern Territory, Australia. *Collegian*. 2012;19(4):211-21. doi: 10.1016/j.colegn.2012.07.001
26. Bolier L, Ketelaar SM, Nieuwenhuijsen K, Smeets O, Gärtner FR, Sluiter JK. Workplace mental health promotion online to enhance well-being of nurses and allied health professionals: a cluster-randomized controlled trial. *Internet Interv*. 2014 Oct 01;1(4):196-204. doi: 10.1016/j.invent.2014.10.002
27. Ketelaar SM, Nieuwenhuijsen K, Gärtner FR, Bolier L, Smeets O, Sluiter JK. Mental vitality @ work: effectiveness of a mental module for workers' health surveillance for nurses and allied health professionals, comparing two approaches in a cluster-randomised controlled trial. *Int Arch Occup Environ Health*. 2014;87(5):527-38. doi: 10.1007/s00420-013-0893-6
28. Zhang N, Xu DX, Li JJ, Gong ZX. Effect of perceived organizational support on fatigue of Chinese nurses during the covid-19 pandemic: resilience as a mediator. *Int J Ment Health Promot*. 2021;23(2):243-54. doi: 10.32604/IJMHP.2021.015487
29. Sampson M, Melnyk BM, Hoying J. The MINDBODYSTRONG intervention for new nurse residents: 6-

month effects on mental health outcomes, healthy lifestyle behaviors, and job satisfaction. *Worldviews Evid Based Nurs.* 2020 fev 01;17(1):16-23. doi: 10.1111/wvn.12411

30. Watanabe N, Matsuoka Y, Kumachi M, Hamazaki K, Horikoshi M, Furukawa TA. Omega-3 fatty acids for a better mental state in working populations - Happy Nurse Project: A 52-week randomized controlled trial. *J Psychiatr Res.* 2018 Jul;102:72-80. doi: 10.1016/j.jpsychires.2018.03.015

31. Porter S, Lexén A, Bejerholm U. Employers' beliefs, knowledge and strategies used in providing support to employees with mental health problems. *J Vocat Rehabil.* 2019;51(3):325-37. doi: 10.3233/JVR-191049

32. Martini LC, Fornereto APN, Sequeto G, Camarotto JA, Mininel VA. Educação em saúde mental no trabalho: protagonismo dos trabalhadores no contexto sindical. *Rev Bras Saúde Ocup.* 2022;47. doi: 10.1590/2317-6369/32020pt2022v47e17

33. Gonçalves VA. Responsabilidade objetiva do empregador: efetivação do meio ambiente do trabalho psicologicamente saudável [Internet]. 2020 [acesso em 2022 nov 30]. Disponível em: <https://repositorio.ufsc.br/handle/123456789/218878>

34. Teixeira CFS, Soares CM, Souza EA, Lisboa ES, Pinto ICM, Andrade LR, et al. A saúde dos profissionais de saúde no enfrentamento da pandemia de Covid-19. *Ciênc Saúde Colet.* 2020 set;25(9):3465-74. doi: 10.1590/1413-81232020259.19562020

35. Warrick DD. What leaders need to know about organizational culture. *Bus Horiz.* 2017;60(3):395-404. doi: 10.1016/j.bushor.2017.01.011

36. Havaei F, Park M, Astivia OLO. The national standard of psychological health and safety in the workplace: a psychometric and descriptive study of the nursing workforce in british columbia hospitals. *Can J Nurs Res.* 2021 dez 12;53(4):405-16. doi: 10.1177/0844562120986032

37. Magalhães J, Paul V. Guarding minds at work: versão portuguesa. Propriedades psicométricas e contributos para a compreensão de fatores de risco psicossociais. VIII Congresso Vertentes e Desafios da Segurança [Internet]; 2018 out 25-27 [acesso em 2023 mar 13]; Leiria, PT; p. 86-94. Disponível em: http://comum.rcaap.pt/bitstream/10400.26/28167/1/Livro_VDS2018_definitivo_RCAN.pdf#page=98

Funding: This work was carried out with the support from the *Fundação de Amparo à Pesquisa do Estado de São Paulo* (FAPESP), through a scientific initiation grant, process number 2021/09455-7.

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How to cite this article

Santos BV, Miranda FM, Silva JAM, Sato TO, Mininel VA Strategies for promoting mental health in hospital nursing work: integrative review. Rev. Enferm. UFSM. 2023 [Access at: Year Month Day]; vol.13, e36:1-21. DOI: <https://doi.org/10.5902/2179769274722>