

Workplace Health Promotion: a path to follow

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Abstract *It is necessary to transcend barriers with respect to the conceptual development and implementation of Workplace Health Promotion (WHP), given that workplaces are priority settings for health promotion. This study consists of a qualitative analysis that adopts a hermeneutic approach using a state-of-the-art technique. A total of 131 documents consisting of guidelines produced by national and international organizations and articles contained in the Embase, ScienceDirect, and Scielo databases were analyzed. Three main categories emerged from this analysis: conceptual development, study methodologies, and measurement of the results and impacts of WHP. Research output was concentrated mainly in North America, Europe, and Brazil. The studies document the positive impacts of WHP interventions on health, productivity and costs. The reach of WHP interventions is restricted to the formal sector. The working environments of informal workers are minimally addressed. WHP interventions should be geared towards improving work organization, working conditions, active participation and worker personal development; however, research has tended to focus on specific actions that address risk reduction, disease prevention, and workers' habits.*

Key words *Health promotion, Workplace, Occupational health*

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Introduction

Given the adverse social and health conditions that afflict a large portion of the global workforce, it is increasingly necessary to carry out studies that identify and describe workplace health promotion interventions. Workplaces are priority settings for health promotion. The Pan American Health Organization (PAHO) defines workplace health promotion as “a variety of policies and activities in the workplace designed to help employees and workers at all levels to increase control over and improve their health, favoring business productivity and competitiveness and contributing to the economic and social development of countries”¹. Various international organisms and academic authorities have defended workplace health promotion (hereafter WHP), based on the premise that a healthy work environment fosters workers health and enhances productivity and general quality of life. There are a number of examples of programs centered on self-care designed to address the main risk factors associated with increased worldwide mortality and morbidity. The World Health Organization (WHO) points out that worldwide prevalence of obesity has more than doubled between 1980 and 2014², and that cardiovascular disease accounts for the majority of deaths from noncommunicable diseases (17.5 million each year), followed by cancer (8.2 million), respiratory diseases (4 million), and diabetes (1.5 million)³.

The WHO reported that the size of the informal economy in the nonagricultural sector in Latin America has shrunk by 55% since the 1990s. It also points out that occupational health and safety interventions are limited mainly to large formal-sector companies: over 85% of workers in the informal sector, including worldwide agricultural workers and immigrants, did not have occupational health coverage in 2014⁴.

These figures show that there is a clear relationship between health and work: as Betancourt points out, work can generate positive or negative health impacts depending on working conditions⁵. Hence the importance of the evolution of WHP, whose principal objective is “to contribute towards improving the physical and psychosocial working environment, health status, the capacity to have healthier values and life and working styles, and the general wellbeing of workers, in order to move towards sustainable development with equity and social justice”¹.

Method

This study consists of a qualitative analysis that adopts a hermeneutic approach to interpret and understand texts and obtain a critical and objective understanding of their meaning. In this respect, Gadamer points out that one who understands admits that his or her own assumed truth must be put to the test and that this should be part of any act of understanding. He confirms therefore that “understanding always contributes to the perfection of historically effective consciousness”⁶. As Minayo points out, a fundamental element of the understanding processes is that the specific or particular meaning a word may possess is always a result of the context. Understanding requires one to interpret, establish relations, draw conclusions in all directions, and be exposed to errors and prejudgements⁷.

It is important to highlight that studies of the relationship between work and health have predominantly taken a quantitative approach underpinned by the positivist research paradigm associated with conventional medicine and the quantification of risk. Understanding the relationship between work and health as an historical social process is tantamount to acknowledging the need to promote studies that employ a hermeneutic approach as a tool that enables understanding. Lacaz⁸ confirms this view when he points out that the epistemological limits of the traditional approach to the relationship between work and health mean that “the possibility of considering and grasping the meaning of other relationships slips away” and that the empiricist and positivist view brought by conventional medicine prevents researchers from “considering and operating on the basis of more complex nexus”.

The state-of-the-art technique was used, defined by Hoyos⁹ as “documental research that is self-developing and whose aim is to explain the construction of meaning of data bases that underpin a diagnosis and prognosis regarding the documental material submitted to analysis”. The documents analyzed in this study included scientific articles contained in selected data bases, and documents and guidelines on WHP produced by national and international organisms. The literature search considered full-text articles written in English, Spanish and Portuguese and published in indexed journals between 2004 and 2014 using the following descriptors based on the Medical Subject Headings (MeSH) and Health

Sciences Descriptors (*Descritores em Ciências da Saúde* - DeCs): Spanish - “*Promoción de la salud*”, “*Lugar de trabajo*”, “*Salud laboral*” and “*Trabajo*”; English - “Health promotion”, “Workplace”, “Occupational health”, and “Work”; and Portuguese - “*Promoção da saúde*” and “*Trabalho*” (Figure 1).

Results

This search and selection process resulted in 131 documents (41 normative documents and guidelines on WHP, and 90 scientific articles) that constituted the units of analysis of this study. With respect to the databases, a total of 1,425 publications were found after eliminating repeated publications. The titles and abstracts were then read to ascertain relevance to the topic of study, resulting in a final total of 90 documents. The majority of the publications were produced in Europe and North America, with eight and 28

papers, respectively, followed by South America, with 13, and Asia and Oceania with 11. With respect to language, 66 of the publications were written in English, 14 in Portuguese, and 10 in Spanish. Fifty-eight of the papers were research-based articles. In South America, Brazil stood out from other countries in terms of research development. Three main categories emerged after repeated, in-depth reading: conceptual development, study methodologies, and measurement of the results and impacts of WHP.

Conceptual development of WHP

The documental analysis showed the emergence and development WHP. In 1974, Lalonde pointed out that the health field involved all health-related aspects – human biology, the environment, life styles, and organization of medical care –, and highlighted the influence of working conditions on public health¹⁰. In 1986, the First

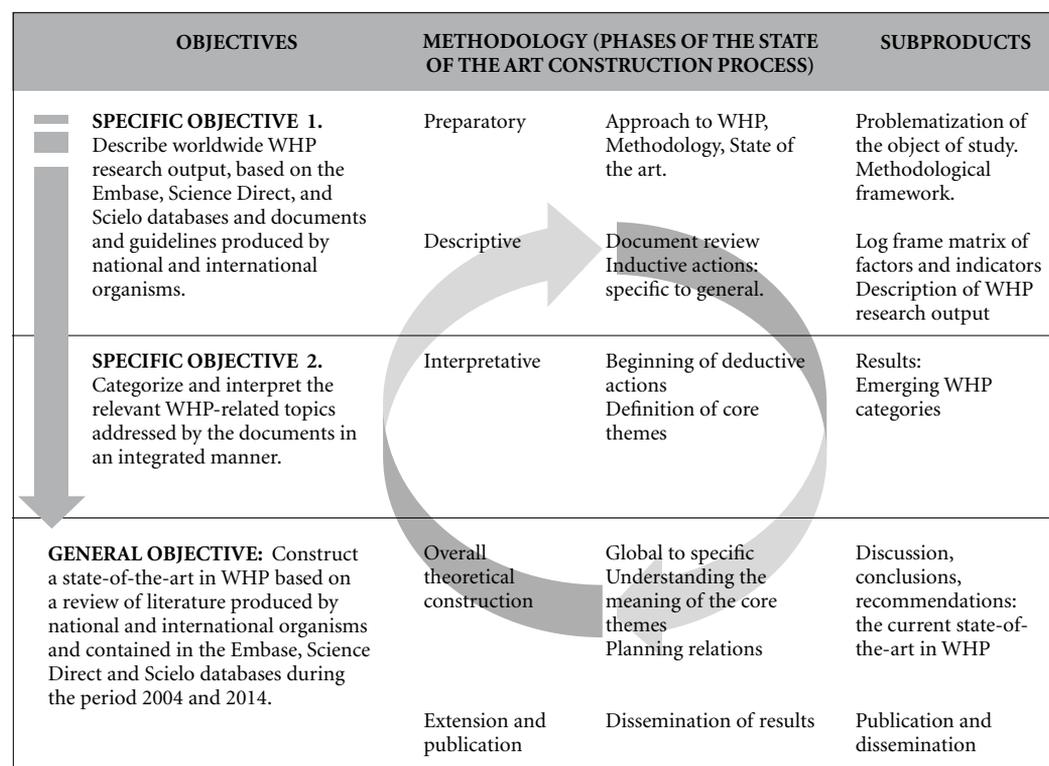


Figure 1. Relationship between study objectives, methodology and subproducts.

Source: elaborated by the authors.

International Conference on Health Promotion launched the Ottawa Charter for Health Promotion, which highlighted the essential conditions for health and presented basic health promotion strategies. Various subsequent health promotion conferences emphasized the importance of intersectoral alliances, the role of healthy social and physical environments in health promotion, social determinants approaches to public health, specific measures planning, and the commitment of governments, local communities, civil society, and business.

Following the Sundsvall Conference in 1996, the European Network for Workplace Health Promotion (ENWHP) was created, leading to the Luxembourg Declaration on Workplace Health Promotion in 1997, which defines WHP as: “the combined efforts of employers, employees and society to improve the health and well-being of people at work, combining activities directed at improving work organization and the working environment, promoting active participation, and encouraging personal development”¹¹.

In 1998, the WHO published *The Health-promoting Workplace: making it happen*¹², which considers the workplace as a priority for health promotion in the 21st Century. It recognizes that, despite the benefits, up to the publication of this document, WHP efforts had reached only a limited number of work places and workers around the world. The publication defines WHP as “a variety of policies and activities in the workplace designed to help employees and workers at all levels to increase control over and improve their health”.

In general, both the documents produced by international organisms and scientific articles highlighted principles such as comprehensiveness, participation, and social justice. For example, a study undertaken by Ferreira et al.¹³ in state schools in Rio de Janeiro observed that workers participated and expressed their health needs, and that the “protagonists of the activities” were actively involved in the process. In the same state, Borges and Azevedo¹⁴ conducted a qualitative study with rural workers, who felt a sense of freedom and satisfaction with their work that was associated with self-management, autonomy and political organization, which they saw as key elements of health. On the other hand, a study carried out by Souza Soares et al. in 2011 exploring dockers’ knowledge of occupational health and safety, showed that dockers’ knowledge of services and functions can enhance social participation, which in turn “enables the necessary

changes to make the port environment more healthy and less dangerous”¹⁵.

With respect to working processes, Silva and Tamminger¹⁶ point out that the discussion about the adverse effects of inadequate working conditions on workers’ health often hides the role work plays in health promotion. The authors suggest that this role should be restored and working processes should be the central focus of the analysis of the relationship between health and work instead of the individual, who should be considered an active agent in health promotion interventions rather than a simple object of health care.

The documents, particularly those produced by international organisms, emphasize that disease and risk prevention accounts for only a fraction of the aspects that should be encompassed by comprehensive WHP interventions. The findings show there has been important conceptual developments that have influenced methodology and facilitated the implementation of WHP interventions.

WHP study methodologies

According to Minayo¹⁷, methodology “is the way of thinking and approaching reality”. This section therefore sets out the path or steps that researchers have followed in the study of WHP highlighted by the units of analysis identified by this study, restricting the analysis to the 58 research-based articles selected from the data bases.

With respect to approach, Gianella¹⁸ defines scientific disciplines as “forms of knowledge organization that can be justified using thematic or ontological criteria, as well as historical and also socio-institutional criteria, or a combination of the three”. The present study found that 55% of the studies were focused on the fields of health and safety at work, which was often denominated occupational health or occupational health and safety, while 12 articles (13.3%) addressed public health, and nine papers (10%) focused on nursing. Other fields covered to a lesser extent by the articles included nutrition, psychology, preventive medicine, sports medicine, engineering and management.

The analysis of research paradigms drew on the framework proposed by Minayo¹⁷. Forty-six studies (81%) – principally in the United States, Europe, and Brazil – adopted a positivist approach. The remaining 12 studies (19%) – most of which were produced in Brazil, followed by the United Kingdom, United States, Norway, and

Iran – drew on the comprehensive sociology paradigm (Figures 2 and 3).

Ten of the 58 studies focused on health workers (including general service workers and administrative staff). The majority of the studies (55, equivalent to 94.8%) involved workers from the formal sector of the economy, while only three cases (5.2%) addressed the informal sector (two studies with agricultural workers and one with artisans and weavers).

Figure 4 shows the different elements and aspects of WHP addressed by the studies. The findings show that a number of studies fall within disease prevention, particularly cardiovascular risk factors¹⁹⁻²⁴ and studies directed at events that lead to health problems. The latter category includes a comprehensive review of literature on explanatory models and WHP related to the prevention of workplace accidents with biological material conducted by Palucci and De Jesús²⁵. The studies analyzed generally include guidance geared towards individuals promoting the use of educational strategies.

With regard to workers habits, the most common aspect addressed by the WHP studies was healthy eating in the workplace²⁶⁻³³, followed by physical activity³⁴⁻³⁸.

With respect to work organization and the working environment, Inauen et al.³⁹ set out a framework of principles for the design of WHP projects that facilitate organizational analysis,

while Holmqvist⁴⁰ discusses WHP based on corporate social responsibility. The findings show that there is a growing body of research focused work organization and the working environment, principally in Europe and Brazil. For example, Leão and Minayo Gomez⁴¹ pose that mental health is often seen as a purely private matter divorced from work and that it is necessary to consider the different elements of work organization (division of labor, hierarchy, types of management, working day, shifts, rhythm, task intensity, breaks etc.) within occupational health and safety surveillance processes to guarantee a comprehensive analysis of the working process.

There is also a growing interest among researchers regarding organizational aspects and certain studies address modifications to the workplace's physical environment (Figure 4).

Finally, with respect to comprehensive WHP, Shain et al.⁴² point out that health promotion programs can only be effective if they simultaneously consider the individual and environment, and adopt a comprehensive approach to health. Based on a literature review in North America, Hymel et al.⁴³ found that programs that include both health promotion and protection have a greater impact on both workers' health and productivity. Other studies concerning comprehensive WHP include those conducted by Thakur et al.⁴⁴, Byrne et al.⁴⁵, and Larsson et al.⁴⁶ and Buerkert et al.⁴⁷. Comprehensive WHP programs

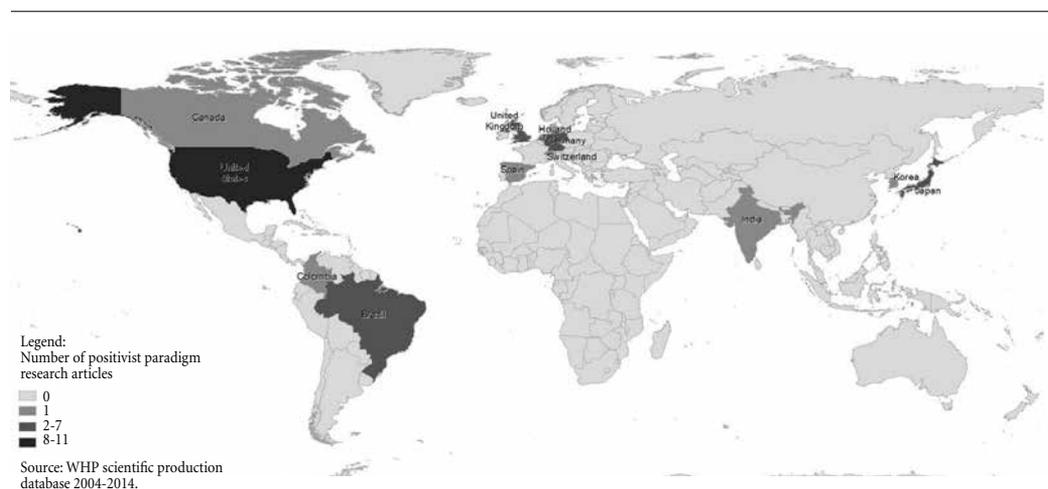


Figure 2. WHP studies that adopted the positivist paradigm by country of publication.

Source: elaborated by the authors.

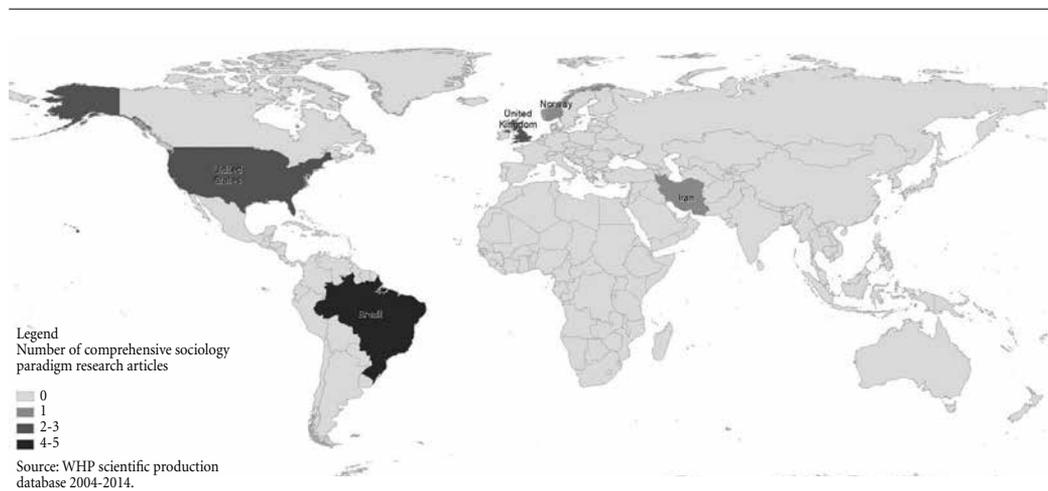


Figure 3. WHP studies that adopted the comprehensive sociology paradigm by country of publication.

Source: elaborated by the authors.

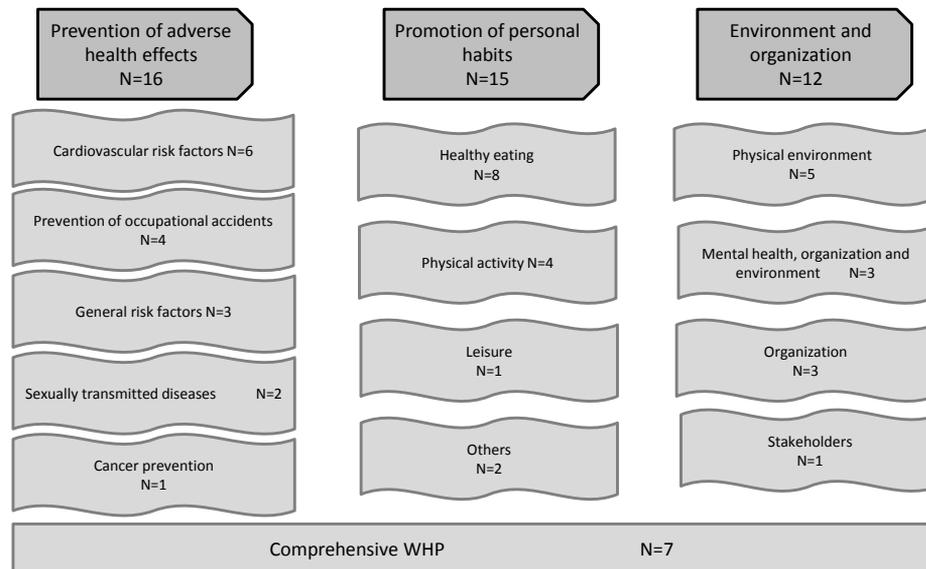


Figure 4. Number of articles according to the different aspects of WHP.

Source: elaborated by the authors.

consider organizational factors that promote the participation of the various actors involved in the process, while adopting a comprehensive approach to health promotion improves overall program effectiveness. In general, the studies re-

garding comprehensive WHP encompass all the approaches mentioned above (individual, environment, and organization), as well the principles that have gradually emerged throughout the development of concepts of health promotion and their application to the workplace.

Measurement of the results and impacts of WHP

Measurement of results is essential for effective decision making. Based on a literature review carried out in 2010, Muñoz et al.⁴⁸ found that “quantitative assessments, and even more so qualitative studies regarding the effects on productivity, are scarce”. The authors confirm that in Colombia there is the tendency to show the results of WHP using traditional quantitative indicators of occupational accidents and diseases”.

A meta-analysis conducted in North America⁴⁹ in 2013 of 18 studies that described 21 interventions reported that high quality researches in methodological level showed WHP programs had little impact. Programs were more effective when there was at least one weekly contact, emphasizing the need for intensive WHP programs. The study also showed that the programs developed with young persons were more effective. Renaud et al.⁵⁰ found an association between program participation rates and absenteeism.

Other studies measure economic impacts, such as that conducted by Carpintero et al.⁵¹ regarding the cost effectiveness of WHP programs, which found that programs had a statistically significant impact on certain aspects such as medical expenses and led to a reduction in the number of compensation claims for occupational diseases. However, the authors concluded that further research is necessary to assess the impact of programs. Aldana et al.⁵² and Cherniack et al.⁵³ showed that WHP programs can generate financial benefits.

The findings show that a number of methods were used to measure the results of WHP programs according to the specific interests and needs of researchers and using indicators ranging from health status, productivity, and the organizational and economic impacts of programs, to program benefits (Chart 1). However, the use and application of indicators remains limited and the studies show an overall lack of coordination between the different aspects of WHP.

Discussion

The state-of-the-art in WHP provides an important insight into key aspects considered during the process of knowledge production, as well as gaps that in one way or another hamper or prevent the development of WHP actions from a conceptual and practical point of view. It is im-

portant to note that this critical interpretation and understanding of the current state of knowledge regarding WHP is limited to the guidelines related to WHP produced by national and international organisms and the scientific articles selected from the databases using the descriptors mentioned above.

With respect to the approach taken by international organisms, the WHO's Healthy Workplaces framework and model⁵⁴ examines the relationship between work, workers' physical and mental health, the community, and the health of business and society. This approach is based on an analysis of factors that affect workers' health, safety and wellbeing, and company success, which are under the control of workers and employers, from the point of view of continuous improvements to the Deming cycle. Despite mentioning the need to include informal workers, the proposed methodologies are directed at formal working structures. In the same way, the documents analyzed in this study generally focus on formal working environments. Thus, although alternative approaches have been used in the study of WHP, the positivist approach remains the most widely-used approach in WHP research.

The principle of social justice implies that all workers in their working environments should be benefitted by WHP actions. The report Strategy for Strengthening Workplace Health Promotion in Latin America and the Caribbean¹, emphasizes the need to target workers with special needs, such as agricultural workers, women, the self-employed, and older adults. However, the present analysis shows that such groups are targeted by a mere four of the 58 studies. The findings corroborate the continued existence of a traditional model that perpetuates social exclusion, given that the majority of the studies of WHP ignore specific issues related to the precariousness of working conditions and vulnerability of workers in the informal sector, despite the fact this group accounts for the majority of the workforce in many countries in Latin America.

It is interesting to note that in Brazil, which accounts for the majority of studies produced in the Latin America and the Caribbean region, the findings of this study show an equal balance in the use of positive and alternative research approaches. According to Robledo and Agudelo⁵⁵ this can be seen as a clear sign that health promotion is gaining importance and a growing tendency to combine positivist and non-positivist research methods. In terms of research, Brazil is

Chart 1. Indicators used for measuring the results of WHP.

<p>Health status and related aspects</p> <p>Global health indicators</p> <p>Quantitative indicators of occupational accidents and diseases</p> <p>Risk factor profiles for changes in health (e.g.: cardiovascular risk factor profile)</p> <p>Obesity rates</p> <p>Signs of stress, depression</p> <p>Variations in risk of mortality</p> <p>Prevalence of chronic diseases</p> <p>Variation in personal habits: reduction in smoking, increased physical activity, changes in intake of fruits and vegetables in the work place, reduction in the time spent sitting at work, changes in the use of personal protective equipment</p> <p>Health self-assessment</p> <p>Physiological measurements, biomarkers (e.g.: blood pressure, cholesterol, heart rate variability, salivary cortisol)</p> <p>Personal health skills</p> <p>Workers' perceptions regarding their health status and work</p>
<p>Productivity and organizational aspects</p> <p>Productivity at work</p> <p>Participation rates</p> <p>Overall absenteeism, absenteeism due to illness</p> <p>Work performance</p> <p>Work skills</p> <p>Compliance (e.g.: training, coaching, intake of fruit and other proposed activities)</p> <p>Fidelity (e.g.: adherence to training and coaching protocols)</p> <p>Work satisfaction</p> <p>Work commitment</p> <p>Context (individual, social, organizational, and program limits and facilitators)</p> <p>Attitudes towards the workplace</p> <p>Increased leadership skills</p> <p>Improvements in other psychosocial and organizational factors</p> <p>Social responsibility indicators</p> <p>Perceptions regarding changes in the working environment</p>
<p>Economic impacts</p> <p>Medical expenses</p> <p>Variation if the number of compensation claims for occupational diseases</p> <p>Health care costs</p> <p>Savings-investment relationship</p> <p>Number of days lost</p> <p>Return on investment</p>

Source: prepared by the authors.

therefore a model to be followed by other countries in the region.

The results of this analysis show that the majority of studies were orientated towards the development of individual skills and responsibilities centered basically on disease prevention. These results are similar to the findings of a study carried out in Scandanavia⁵⁶ based on 63 publications, which found that the main focus of the

studies was disease prevention, rather than health promotion. Furthermore, the majority of studies showed that interventions did not seek to carry out changes to the working environment; rather the workplace was seen as an appropriate setting for providing guidance to people with respect to change in behavior, lifestyles, and disease prevention. This may be down to the fact that researchers and intervention developers are con-

cerned with directing their research and program efforts towards palpable needs: the global reality of noncommunicable diseases. Given that lack of physical activity, inadequate diets, smoking, and drinking increase the risk of death due to a non-communicable disease³, intervention is necessary to ensure that workplaces become settings that are capable of promoting healthy lifestyle behaviors.

Apart from focusing on workers' skills and responsibilities, it is necessary to take a critical approach to the workplace that involves changes to the work environment and organization of work in accordance with international guidelines. Although certain approaches have pointed in this direction, further efforts are required to advance towards a comprehensive approach. This view is endorsed by Carvalho⁵⁷ who, based on a study of approaches to health in Canada, observed that health promotion programs and activities were oriented towards education activities geared towards reducing exposure to risks generated by "inappropriate behavior". The author points out that, although these approaches have had positive effects on some groups, the overall impact of interventions on the living conditions of the target population was limited due to the emphasis on piecemeal actions geared towards healthy lifestyles.

The analysis showed that researchers used various indicators to assess the health status, productivity, work organization, and economic impacts of programs, and that studies demonstrated the benefits of WHP. However, these results invite a review of the current indicators proposed by the guidelines, which are apparently limited to traditional standardized measures, such as occupa-

tional accident and morbidity rates and days lost, based on a health risk and disease reduction perspective. WHP enables the measurement of positive aspects, since the promotion of these aspects is the essence of this strategy.

Conclusions

Stemming from the ideas surrounding health promotion, the concept of WHP has evolved globally over the last four decades. This study strongly emphasizes that disease prevention and actions geared towards specific risk factors make up only a small fraction of the actions envisaged under a comprehensive approach to WHP. It also shows that the evolution of the concept has involved a number of methodological advances that facilitate the implementation of this strategy: however, much more needs to be done to ensure the successful implementation of effective WHP. The prevailing global economic model is an obstacle to the development of policy and the implementation of comprehensive WHP processes.

It is necessary to promote the formulation and implementation of workers' health policies and interventions that address the specific characteristics of the informal sector, which have up till now been ignored or minimally addressed.

Finally, truly comprehensive, interdisciplinary and intersectoral WHP interventions should be implemented, based on the principles of social justice and sustainability, which goes beyond an approach exclusively focused on risk reduction. WHP programs and activities should also incorporate mechanisms that encourage the participation of workers from all levels underpinned by social policies that benefit workers.

Collaborations

L Chaves-Bazzani drafted the article based on the results of her master's thesis and participated in all stages of the development of this study. As master's thesis supervisor, AI Muñoz-Sánchez made significant contributions to study conception, methodology, interpretation of data and the critical revision of this article.

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