

Policy Forum



Intervention Strategies for the National Project of Workplace Health Promotion in China

LI Shuang, LI Tao[#], LI Chao Lin[#], and WANG Chao

The World Health Organization's (WHO) definition of health is: 'A state of complete physical, mental, and social well-being, and not merely the absence of disease'. This definition has changed the perception of 'no disease is healthy' and given the public a new way to think about health and its influencing factors. The public's perception has changed from receiving health education passively to promoting their health actively by improving their own capacity, health perception, and performance. 'Health promotion encourages people to keep their health at an optimal state psychologically and physiologically. The purpose is to help the public know how to stay healthy, how to live a healthy lifestyle, and how to make healthy choices' the pre-secretary-general Brundland said at the Fifth Global Health Promotion Conference. People spend the majority of their lifetime in the workplace; therefore, a safe, healthy, comfortable, and joyful working environment is necessary. The early work of occupational hygiene emphasized injury prevention and safety. Today, we realize that the workplace should also be concerned with encouraging healthy practices, not merely the prevention of injury and disease. The WHO considers the workplace as a priority setting for health promotion in the 21st century. Like other settings where the WHO has developed health-promoting initiatives (schools, cities, hospitals, and marketplaces), the workplace can have a very positive impact on the health and well-being of workers, their families, communities, and society at large. At the moment, a consensus has been drawn that health promotion practiced in the workplace is the most cost-effective. A healthy, motivated, and well-qualified workforce is fundamental to the future social and economic well-being of the world. There is a growing body of evidence that improvements in healthy workplace can play a key role in improving business productivity and competitiveness. However, in spite

of demonstrated benefits, current workplace health promotion efforts reach a limited number of workplaces and workers in China.

To explore and summarize workplace health promotion models and methods suitable for China, the National Project of Workplace Health Promotion (the Project) was launched in 2007. Funded by the National Institute of Occupational Health and Poison Control of Chinese Center for Disease Control and Prevention (China CDC), the Project is so far the most comprehensive and longest-running Workplace Health Promotion (WHP) project in China. By learning from international WHP theory and piloting WHP in various regions, sectors, and enterprises, the Project aimed to explore and summarize WHP models and methods suitable for China, to disseminate them across China, and eventually to provide evidence for policy-making. Since the kickoff of the Project in 2007, 23 industrial enterprises from nine provinces/municipalities have participated as pilot localities. Twelve enterprises passed the mid-term evaluation by the end of 2013. This paper assesses the effectiveness of intervention strategies used in the Project, and aims to provide a reference for counterparts to carry out relevant research and work.

The WHP guidance documents, free health education resources, WHP quality standards and assessment manuals of the WHO, US, EU, Switzerland, UK, Canada, Singapore, Hong Kong (China), and Taiwan (China) have been reviewed. Relevant materials of the Project including work plans, training materials, needs assessment materials, intervention plans, evaluation materials, supervision materials, and the Project's annual reports have been collected and analyzed. We have set populations with rich information related to WHP and the Project as target groups for sampling and selected 25 persons including health officials, experts, enterprise managers, and employees for

doi: 10.3967/bes2015.056

National Institute of Occupational Health and Poison Control, Chinese Center for Disease Control and Prevention, Beijing 100050, China

intensive interviews through purposive sampling. These interview audio recordings were transcribed into text with key points confirmed with the interviewees. The content of the interview was the experience with the Project, the effects of the Project, and the sustainable development strategies of WHP according to China's national conditions. Through material analysis and qualitative interviews, the intervention strategies of the Project were assessed and analyzed.

Working Pattern of the Project

The Project uses a working pattern that is premised on network and collaboration, based upon the technology support of occupational disease prevention and treatment institutes (the Institutes). The Institutes use the Plan-Do-Check-Act (PDCA) Cycle as the basic framework.

To Establish Network and Collaboration The goal is to establish four-level work-related networks comprised of the Institutes at the national, provincial, municipal, and district levels, ensuring clear division of labor, collaboration, and implementation. Work review and experience sharing are carried out annually.

To Enlist Pilot Enterprises The Institutes at the provincial level are responsible for enlisting pilot enterprises in compliance with selection principles. The principles are as follows: a. Enterprises should be independent or relatively independent legal person units which carrying out production activities within the People's Republic of China; b. Enterprises should volunteer for the Project; c. Enterprises should be highly motivated to promote workplace health; d. Enterprises should be of different sectors and scales. Enterprises enlisted are distributed in nine provinces/municipalities (Beijing, Tianjin, Hebei, Shandong, Liaoning, Henan, Jiangsu, Guangdong, and Hainan) and cover 11 sectors among which small and medium-sized enterprises (SMEs) account for 82.6% of the total (19 out of 23).

To Use PDCA Cycle as the Basic Framework PDCA is an iterative four-step management method for continuous improvement of processes and products. The five steps of 'establishing network and collaboration, enlisting enterprises, informing employees, assessing demand, and developing overall plans' belong to the 'Plan' stage; the step of implementing intervention activities belongs to the 'Do' stage, evaluation belongs to the 'Check' stage and making improvements and updates belong to the 'Act' stage.

Effective Intervention Strategy

Commitment and support from management. The senior management of the pilot enterprises has made a written commitment, which states their responsibility in complying with laws, regulations, and standards; conducting health education and health promotion activities; and advocating health promotion within their enterprises.

Integration Integration is the major strategy for sustainable development of the Project. It involves multiple levels. First, pilot enterprises set up agencies such as a Health Promotion Committee to integrate health, security, environment, human resources, trade unions, and finance departments in order to work on health promotion together. Collaboration and synergy are encouraged. Second, in terms of policy making, health promotion activities are integrated into building culture activities and the management system of occupational safety and sanitation, so that health promotion aligns with the enterprises' developmental objectives. For example, WHP has been integrated into, and is highly complementary with, the Five-star Safety, Health and Environment Protection Management System of the National Occupational Safety Association (NOSA) in two enterprises of the power industry. Third, on the national level of the Project team, health education resources of all localities and pilot enterprises are consolidated. Leaflets, posters, brochures, manuals, CDs, and training materials are shared among localities to avoid waste.

Employee Participation Employees are the main target of WHP, therefore employee participation is essential to health promotion. In carrying out the Project activities, organizers not only inform employees about participating but also encourage and lead them to engage in activities that will improve their health by providing health resources and building up employees' knowledge and capacity. For instance, employees are given a breakfast subsidy and encouraged to form the habit of having breakfast every day. In addition, 'Health Promotion' groups are set up; employees first decide what topics they are interested in and then discuss with health experts. By doing so, activities are more focused and feasible and are quickly adopted by employees. Activities aimed at taking care of employees and their families are also conducted to reach out to families and communities. Organizers establish libraries, buy sports activity cards and exercise facilities for employees, hold health

consultations, hold extensive activities (interest groups activities, sports meeting, knowledge contest, etc.), and show films regularly in order to enrich the lives of employees. Every employee is given a health kit including a waist ruler, an oil bidon with scale, a salt spoon with scale, a rope, and a fitness ball. A Signing activity of 'Ten Golden Rules of Health' is held to advocate a healthy lifestyle; the training activity of 'Sunshine Attitude' is designed to improve employees' abilities to face pressure and deal with stress; an enterprise-wide poll called 'Environmental Health & Safety (EHS) Star' is hosted to select star employees who comply with EHS regulations, propose suggestions, and actively participate in EHS activities.

Full Technical and Service Support from the Institutes

Currently in China, the most influential factor for employees' health, safety, and wellbeing remains occupational health and safety. A top priority for WHP is to improve physical work environments to comply with laws, regulations, and standards. In the process of planning, implementing, reviewing and improving the Project, full technical and service support from the Institutes is highly indispensable. Therefore, one of the Project's major strategies is to gain support from the Institutes at the local level. They have carried out a variety of activities such as health education free of charge, an occupational health check-up, and an occupational hazards test for pilot enterprises. They have given pilot enterprises cards with information about the occupational health experts' names, mobile phone numbers, and their specialties; and free of charge 24/7 counseling is available. A supervisory expert team has been formed to assess, comment on, and guide the whole process of the Project. In addition, a counterpart coordination system is set up between institutes and pilot enterprises to facilitate technical guidance and training support.

Incentive Mechanism To provide incentives to pilot enterprises, the National Institute of Occupational Health and the Poison Control Center of the Chinese CDC have worked together with the sub-branch of Enterprises, the Chinese Association of Health Promotion and Education, to award the activity organizers of pilot enterprises to stimulate health promotion work. Jiangsu CDC has cooperated with the Jiangsu Patriotic Health Committee Office in carrying out demonstration activities of health-promoting enterprises in terms of leadership support, health management, workplace health and humanistic environment. The enterprises that excel

in evaluation and meet the standard of demonstration enterprises for health promotion will be awarded a bronze medal and certificate of paradigm named as 'Demonstration enterprises for health promotion in Jiangsu Province'. These activities have inspired the business community and more enterprises have planned to meet the standard of demonstration enterprises and protect the lawful rights and interests of employees. So far, 108 enterprises are titled as 'Demonstration enterprises for health promotion in Jiangsu Province', covering 108 municipalities and 166,000 employees.

These effective intervention strategies have proven to be practical and feasible, leading to telling effects on the improvement of the working environment and the knowledge, attitude, and behavior of the employees. WHP has been widely acknowledged as low-input and high-output. On the basis of international health promotion theory and taking into consideration China's national conditions (such as the support from the leadership plays an important role in social working, the education level and health literacy of industrial workers are relatively low), the Project has laid down an overall working pattern and intervention strategies at the national level of the Project team, while pilot regions and enterprises have, under the guidance of the overall strategy, conducted distinctive intervention activities in the light of their conditions and demands. By doing so, enterprises have improved their work environment and have given more health education and behavior guidance to employees. Accordingly, employees have become more satisfied with their work and more focused on their health and environment; they tend to show more initiative in building a sound lifestyle in the future. The Project has laid a solid foundation for improving workplace health and safety, improving the physical and mental health of employees, and advancing the business and culture development of enterprises^[1-3].

Management support serves as the key to successful WHP. WHP is a long-term project that requires continuous efforts. During preparation and in every step of the Project, the intervention practices have fully proven the significance of management support; it is necessary to have sufficient financial support, clear policies, and technical guidance. In summary, health promotion and occupational disease control and prevention can be advanced only if the leadership has recognized the seriousness of occupational hazards, the close

relationship between employee health and business development, and its own responsibility to promote employee health.

It is important to help employees improve awareness of health promotion and encourage active participation. Employees are the beneficiaries as well as the participants of health promotion activities. At the workplace, the active participation of employees and stakeholders in decision-making, problem-solving, and assessment is indispensable for implementing and sustaining WHP projects^[4-5]. In designing and implementing WHP intervention strategies, it is essential to call for more individual initiatives, establish personal responsibility for health, and adopt a bottom-up empowerment approach to solving problems^[6]. It is also important to communicate with employees more often to understand their needs, making sure the workplace is employee-friendly. Employees should be encouraged to speak up about their own opinions regarding the work environment, labor protection, or lifestyle. Pressing issues concerning occupational hazards and lifestyle should be solved immediately. By conducting feasible and targeted activities, enterprises will win the trust and support of employees.

It is advisable to develop practical tools for enterprises to implement WHP. Since the 1990s, WHP in China has developed from health publicity to occupational health education to occupational health promotion, during which enormous achievements have been made^[7]. However, numerous problems, including lack of recognition of the importance of occupational disease prevention, inadequate capacity of occupational health services, little funding, and few practical tools have constrained the further development of WHP in China to only pilot activities and not nationwide projects. The Project team and enterprises have co-designed a series of folders, bulletin boards, and training materials for health education, but it is far from enough to meet the demand of employees for knowledge that leads to behavior change. The US, EU, Switzerland, UK, Canada, Singapore, Hong Kong (China), and Taiwan (China) have developed a set of WHP tools including guidance documents, free health education resources, quality standards, and assessment manuals^[8-16]. Their practices are also highly relevant for China, though the tools are designed in developed countries or regions where compliance with occupational safety and health laws is the status quo. Therefore, we can learn from their

best practices but we should not follow them blindly. To promote WHP in China so that more employees can share the benefits, it is an urgent task to develop a set of practical tools that take into account China's national conditions, culture, work environments, and the fact that the majority of enterprises are SMEs. The tools also need to be easy to understand, operate, implement, and understand.

Suggestions for WHP in SMEs: as an integral part of economic and social development, SMEs have played an important role in creating job opportunities, developing diversification, rejuvenating local economies, and creating harmony at workplace. However, SMEs lack dedicated personnel with skills in occupational health and safety management. The operating environments in SMEs are often complicated with high turnover rates, poor management models of occupational health, and backward control technologies of occupational disease hazards^[17].

In pilot practices, we have found that compared with large-scale enterprises, SMEs enjoy unique advantages in launching WHP. First, SMEs have a simpler organizational structure and therefore communication among departments can be more effective. Second, in SMEs, employees have easier access to senior management and are also more easily impacted by leaders. Third, employees in SMEs are dependent on each other as many of them are relatives or friends, thus one's health behavior can be influential to another. Fourth, SMEs tend to have fewer employees and health activities are easily planned, implemented, and assessed among employees. Fifth, wider participation can occur in SMEs. Sixth, short and medium-term intervention effects can be seen earlier in SMEs. Lastly, the possibility of providing SMEs with free-of-charge or low-cost healthcare is growing. Accordingly, SMEs should be encouraged in carrying out health promotion, planning and implementing WHP project, to make up for the demand of occupational health and safety, which can't be ensured by traditional occupational health work.

In conclusion, commitment and support from management, integration with occupational health and safety programs, employee participation, full technical and service support from the Institutes, and incentive mechanisms are necessary components for effective intervention strategies of the Project. The effective intervention strategies will be useful as a guide for further work on WHP in China.

#Correspondence should be addressed to LI Tao, Tel: 86-10-83132513, Fax: 86-10-83132513, E-mail: niohplt@sina.com; LI Chao Lin, Tel: 86-10-83132930, Fax: 86-10-83132313, E-mail: chaolinli969@126.com

Biographical note of the first author: LI Shuang, female, born in 1975, PhD, associate researcher, majoring in occupational health promotion and work stress.

Received: November 28, 2014;

Accepted: May 14, 2015

REFERENCES

- Li S, Li T, Li J. A comprehensive evaluation of intervention effects on workplace health promotion in a pharmaceutical company. *Chinese Journal of Industrial Hygiene and Occupational Diseases*, 2011; 30, 115-8. (In Chinese)
- Zhang QY, Zhu BL, Zhang HD. Approaches to guide enterprises to develop workplace health promotion. *Chinese Journal of Industrial Medicine*, 2010; 23, 388-90. (In Chinese)
- Peng MY, Li CL, Li S. Survey on the demand of occupational health promotion and its intervention in a small and medium-sized enterprise. *China Occupational Medicine*, 2010; 37, 348-9, 351. (In Chinese)
- Aust B, Duchi A. Comprehensive health promotion interventions at the workplace: experiences with health circles in Germany. *J Occup Health Psychol*, 2004; 9, 258-70.
- Munn-Giddings C, Hart C, Ramon S. A participatory approach to the promotion of well-being in the workplace: lessons from empirical research. *Int Rev Psychiatry*, 2005; 17, 409-17.
- Arneson H, Ekberg K. Measuring empowerment in working life: a review. *Work*, 2006; 26, 37-46.
- Li CL, Li S, Liu HL. Review and development of occupational health promotion. *Chinese General Practice*, 2001; 4, 505-7. (In Chinese)
- Centers for disease control and prevention. Workplace health promotion, 2012. Available from: <http://www.cdc.gov/workplacehealthpromotion/index.htm>. [2014-03-2].
- ENWHP. European toolbox. <http://www.enwhp.org/european-toolbox.html>. [2014-03-2].
- Health and Safety Executive. Health and safety made simple. <http://www.hse.gov.uk/simple-health-safety/index.htm>. [2014-03-2].
- Canadian Centre for Occupational Health and Safety. Advancing healthy workplaces. <http://www.ccohs.ca/healthyworkplaces/tools.html>. [2014-03-5].
- Health Promotion Switzerland.S-Tool. http://www.stress-tool.ch/index.php?option=com_frontpage&Itemid=27&lang=en. [2014-03-5].
- Health Promotion Switzerland. SWiNG project. http://www.gesundheitsfoerderung.ch/pages/Betriebliche_Gesundheitsfoerderung/Tipps_Tools/module_swing/index.php?lang=en. [2014-03-5].
- Government of Singapore. WHP Toolbox. http://www.hpb.gov.sg/hpb/default.asp?pg_id=2144. Accessed March 6, 2014.
- Occupational Safety & Health Council. <http://www.oshc.org.hk/>. [2014-03-6].
- Bureau of Health Promotion, Department of Health. Healthy Workplace Information Network. <http://health.bhp.doh.gov.tw/>. [2014-03-8].
- Li S, Li CL. Status quo of health promotion in working places of middle and small enterprises and prospective. *Chinese Journal of Industrial Hygiene and Occupational Diseases*, 2008; 26, 781-3. (In Chinese)
- WHO. Healthy workplace: A model for action: for employers, workers, policymakers and practitioners. World Health Organization, Switzerland.