

# The health promoting hospital movement in Taiwan: recent development and gaps in workplace

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## Abstract

**Objective** To examine the development in healthcare workplace health promotion (WHP) in Taiwan through the Health Promoting Hospital (HPH) initiative.

**Methods** A cross-sectional survey was conducted with a self-administered questionnaire, involving all 55 hospitals committed to the HPH approach (HP hospitals) as of the end of 2009; 52 completed the questionnaire.

**Results** Fifty of 52 hospitals perceived a change in organizational capacity which mainly occurred in the areas of re-aligning strategies (96 %) and more resources (71 %). Regarding re-aligning strategies, 85 % of the hospitals engaged in increased staff participation, 66 % in staff-oriented health services.

**Conclusions** The HPH initiative has led to new developments in capacity building of WHP among HP hospitals in Taiwan, and this study has mapped a pattern of such developments.

**Keywords** Health promoting hospitals · Workplace health promotion · Cross-sectional studies

## Introduction

Hospital staff is at risk of a great number of hazards at workplace, including biological risks, chemical risks, physical risks, ergonomic risks and psychosocial risks (EASHW 2011). In the US, the past decade has seen a rise in occupational injury to health workers (NIOSH 2011). In Taiwan, health care workers also face a variety of hazards. Recent studies have shown various health concerns of hospital workers in Taiwan, including job stress, latex allergy and percutaneous injuries (Chen et al. 2008; Lin et al. 2008; Shiao et al. 2008).

The health promoting hospital (HPH) approach directed Taiwanese hospital leaders and managers' attention to staff health. Before the introduction of HPH in Taiwan, only a small number of hospitals implemented staff health promotion programs even though the central and local health authorities initiated sporadic campaigns related to the health of hospital staff such as *Strengthening Workplace Health Promotion Initiative* by Bureau of Health promotion (Lin 2006) and the Healthy Hospital Accreditation by Taipei City Government (Yang et al. 2006). Although the Hospital Accreditation Scheme plays a pivotal role in hospital administration, it only marginally touches upon the staff health issues and had not been facilitative to staff health promotion (Chiou 2007).

World Health Organization (WHO) launched the HPH project in 1988 which has continued to expand and developed around the world. The HPH initiative was first adopted by some of the Taiwan's hospitals in 2005. The Taiwan HPH Network, organized in 2006 and modeled after the HPH project, has been developing fast and its membership as of May 2011 stands in the third place among National/Regional members of the International HPH Network (Pelikan et al. 2011b).

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Health promoting hospital network has been developing for over more than two decades; while there were evaluations built-in some of the HPH initiatives, one of the knowledge gaps of the HPH approach is that there has not been much research aimed to show its effectiveness (McHugh et al. 2010; Pelikan 2007; Whitehead 2004). This gap also exists in Taiwan. This study aims to examine the recent developments of HPH on staff health promotion and the gaps remained to be filled in terms of the determinants of health less addressed and the efforts insufficiently endeavored among the hospitals committed to the HPH approach (HP hospitals) in Taiwan.

## Methods

### Subjects

This study involved all 55 HP hospitals which enrolled members of the Taiwan HPH Network as of the end of 2009. The 55 HPH coordinators, one in each hospital were invited to complete a questionnaire. The survey was conducted from the end of March 2010 to early May 2010. Among the 55 HPH coordinators invited, 52 completed the questionnaire for a response rate of 94.5 %.

### Variables

The developments of staff health promotion were measured in terms of organizational capacity, types of issues addressed, and strategies taken for lifestyle-borne health problems. Questions related to the latter were based on the five action areas of health promotion indicated in the Ottawa Charter: building healthy public policy, creating supportive environments, strengthening community actions, developing personal skills and reorienting health services.

### Data analysis

SPSS 18.0 version was used to analyse the data. Descriptive analysis was used to examine the pattern of changes in organizational capacity, types of health promotion programs for staff health; one-way ANOVA and *T* test were used to test whether the number of health issues addressed is related to the hospital characteristics, and Chi-square test was used to test whether the number of issues addressed is related to the type of health promotion programs.

## Results

The survey involved 26 public hospitals, 17 corporate hospitals and 9 private hospitals. Eight hospitals had launched the HPH initiative before 2006, 24 since 2007, 12

have done so since 2008, and 8 since 2009. The starting year for implementing HPH was defined as the time when the commitment to HPH was made. The ANOVA analysis and *T* test found that the above-mentioned hospital characteristics were not related to the number of health promotion programs addressed and strategies adopted in HP hospitals.

Out of the 52 respondents, 50 reported changes in staff health promotion associated with enrollment in HPH. As Table 1 shows, the most common change perceived is re-aligning strategies to address lifestyle-borne disease, followed by more resources and, improving quality control. The change in strategies mostly reported was an increase in fostering staff participation.

Table 1 also shows the facilitative role of HPH on prompting important issues. High percentages of the committed hospitals have addressed staff obesity, metabolic syndrome or physical fitness and health management for abnormal cases, such as staff members with high cholesterol level, high blood pressure, or symptoms of hepatitis, smoking cessation or job stress over the past year. Fewer hospitals have addressed the specific issues of physical environment, suggesting gaps may still remain in workplace HP even after the adoption of HPH initiative. Similar results were found in the issues related to organizational work environment.

This study also confirmed the surmise that lifestyle health issues took a central role in staff health promotion programs in hospitals as shown in Fig. 1. There is a significant association between the number of issues addressed and the types of health promotion, i. e., lifestyle, physical, and organizational environment, ( $\chi^2_{(6)} = 92.34$ ,  $p = 0.000$ ) and lifestyle health promotion was found to have taken the central stage in HP hospitals. As evidenced in Table 1, measures facilitative to healthy lifestyle had gone beyond the individual's level, and well into the strategies at the policy, social and physical environmental levels. The healthcare facilities had also been made more user-friendly and better accessible to the staff conducting healthy lifestyle activities. Job stress, however, appeared to have received less attention in terms of organizational and physical environments.

## Discussion

The HPH approach has led to recent developments in the implementation of WHP among HP hospitals in Taiwan. These developments were manifested in organizational capacity, health promotion issues addressed and strategies taken.

In relation with their enrollment in HPH, HP hospitals in Taiwan built capacity for staff health promotion

**Table 1** Impact of Health Promoting Hospital on organizational capacity, types of issues addressed and strategies for lifestyle issues adopted, surveyed between the end of March 2010 and early May 2010, Taiwan

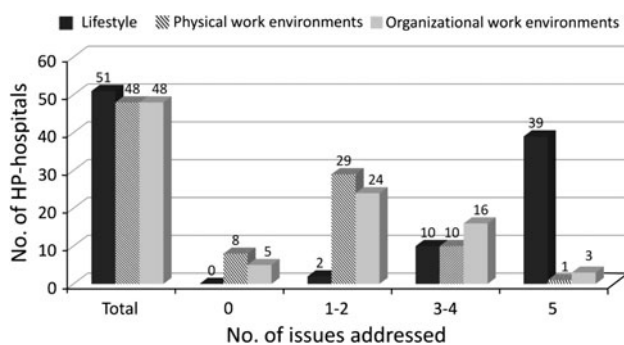
Types of impacts	<i>N</i>	%
<b>1. Organizational capacity for staff health promotion<sup>a</sup></b>	49	100
1-a. Re-aligning strategies	47	96
Emphasizing staff participation	40	85
Reorienting health services	31	66
Emphasizing the impact of healthy policies	23	49
Emphasizing supportive environments	21	45
Emphasizing individual knowledge and skills	13	28
1-b. More resources	35	71
1-c. Improving quality control	20	41
1-d. More programs	17	35
1-e. Higher service volume	15	31
1-f. Changing work models	6	12
<b>Issues addressed</b>		
2-a. Issues (and strategies taken) related to lifestyle	52	100
2-a-i. Staff obesity, metabolic syndrome or physical fitness	50	96
Formulating management measure of staff health promotion	20	40
Particularly establishing sports clubs	32	64
Building sports space within the hospital	32	64
Building supportive sports environment outside the hospital	32	64
Establishing groups of staff health promotion	27	54
Posters or health seminars	36	72
Weight-loss programs	37	74
2-a-ii. Health management for abnormal cases	48	92
Formulating administrative rules for staff health management/standard procedure for health screening follow-up	38	79
Providing free or preferential health screening	35	73
Adding bonus services or incorporating health screening items by NHI	28	58
Developing information system of staff health management	19	40
Full-time staff members exclusively for that purpose	30	63
2-a-iii. Smoking cessation	48	92
Formulating management measurement of staff health promotion	18	38
Building a smoking-free environment	46	96
Posters or broadcasting	43	90
Offering smoking cessation courses/clinics/seminars	35	73
2-a-iv. Job stress <sup>a</sup>	48	92
Formulating policies for work stress adjustment measure	23	49
Work redesign	6	13
Occupational safety and health committee deal with staff work stress	9	19
Improving organization management	4	9
Improving physical environment	3	6
Offering staff outing/social events	36	77
Developing skills for conflict and time management	10	21
Offering stress management courses or meditation	31	66
Offering counseling or referral systems	36	77
2-a-v. Staff nutrition	45	86
Formulating a healthy diet policy	25	56
Building a supportive environment for healthy diet	37	82
Staff health nutrition seminars	23	51
Health nutrition posters	29	64
Offering staff consultation of healthy diet	31	69

**Table 1** continued

Types of impacts	N	%
2-b. Issues related to physical work environments	52	100
Do not know	4	8
Not implemented	8	15
Implemented	40	77
Improving air quality	22	42
Reducing noise	14	27
Reducing odor smell	12	23
Improving bad work-station design	7	13
Reducing chemical exposure	21	40
2-c. Issues related to organizational work environments <sup>b</sup>	51	100
Do not know	3	6
No implemented	4	8
Implemented	44	86
Adjusting work procedure	18	35
Improving inter-sectoral partnership	30	59
Improving relationships among colleagues	13	25
Improving worker involvements in decision-making	24	47
Improving merit system	19	37

<sup>a</sup> With 1 missing value for the statement of programs

<sup>b</sup> With 1 missing value



**Fig. 1** A comparison among the number of issues addressed by the number of HP hospitals in three different types of health promotion, surveyed between the end of March 2010 and early May 2010, Taiwan

particularly in re-aligning strategies, more resources, and improving quality control. This study also found that lifestyle was the most prominent issue in HP hospitals in Taiwan, followed by organizational work environments and then physical work environments. This finding is consistent with a current international study that HPH most effectively strengthened the implementation of health promoting lifestyle, followed by health promoting co-production in work processes (Pelikan et al. 2011a).

Regarding lifestyle issues in obesity/metabolic syndrome/physical fitness, smoking cessation, nutrition and health management for abnormal cases, the strategies adopted went beyond individual factors. In the strategies related to reducing job stress, this study found that HP hospitals in Taiwan tended to use tertiary and secondary interventions, which offer *ex post* treatment or strategies to

cope the already existing stressor, instead of exercising primary interventions to take away the stressors in the first place. This finding is consistent with the previous reviews that individually focused interventions were dominant in job stress prevention (Caulfield et al. 2004; Richardson and Rothstein 2008). However, this may not be the most effective intervention for job stress, for several studies have suggested that job stress interventions should not only address the consequence of the stressor but also the context in which the stressors occurred (Burke 1993; Cox et al. 2007; Noblet and LaMontagne 2006). A previous systematic review suggested that a combination of individual-level and organization-level interventions is most effective in addressing negative impacts of job stress (Lamontagne et al. 2007).

According to Chu et al. (1997) and Wenzel (1994), there are four generations of health promotion programs in the workplace. The development of workplace health promotion in Taiwan was predominantly in the third generation with the focus on wellness programs and individual lifestyle change. Measures remain to be taken in order to approach the fourth generation which focuses on individual risk factors as well as broader organizational and environmental factors. These are the main gaps identified by this study.

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