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Employer and Promoter Perspectives on the Quality of Health Promotion Within the Healthy Workplace Accreditation

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Objectives: To explore the employers' and promoters' perspective of health promotion quality according to the healthy workplace accreditation. **Methods:** We assessed the perspectives of 85 employers and 81 health promoters regarding the quality of health promotion at their workplaces. The method of measurement referenced the European Network for Workplace Health Promotion (ENWHP) quality criteria. **Results:** In the large workplaces, the accredited corporation employers had a higher impression ($P < 0.001$) of all criteria. The small–medium accredited workplace employers had a slightly higher perspective than non-accredited ones. Nevertheless, there were no differences between the perspectives of health promoters from different sized workplaces with or without accreditation ($P > 0.05$). **Conclusions:** It seems that employers' perspectives of healthy workplace accreditation surpassed employers from non-accredited workplaces. Specifically, large accredited corporations could share their successful experiences to encourage a more involved workplace in small–medium workplaces.

The World Health Organization (WHO) suggests the workplace is the ideal location to advocate for the promotion of health because the workplace not only influences workers' physical, psychological, economic, and social stability, but also affects their families, communities, and social health.[1] Employees in the UK spend up to 60% of their time in the workplace, so the worksite is an important environment to provide health promotion services.[2] For example, the US Healthy People White Paper of 2020 aims to encourage workplaces to implement mental health programs to reduce mortality and job hazards, as well as allows more employees to participate in health promotion programs and maintain a good lifestyle.[3] Many studies also support proper healthy workplace programs for adults to reduce mortality, morbidity, accidents, and medical service demands.[4–6] Defining a healthy workplace is based on organization policy and considers the individual, environment, culture, and other health relevant items,[7–9] as well as maintains a high participation rate to establish appropriate evaluation mechanisms.[10]

Some studies have established the healthy workplace accreditation, encouraging employers to pay attention to staff health and ensure health benefits in the workplace.[11] The European Network for Workplace Health Promotion (ENWHP) has developed a measure of the quality of health promotion using six indices, which help administrators diagnose problems with health promotion methods and analyze the efficacy of health promotion programs.[12–14] Singapore is developing the bizSAFE accreditation, which is divided into five levels. Levels 1–3 have to develop a risk management implementation plan, while Levels 4–5 must implement a workplace safety and health management program or obtain the occupational health and safety assessment series 18,001.[15] This ensures that accreditation reduces employee health risks in the workplace and increases the effectiveness of health management. Since 2006, the Montana Excellence in Worksite Health Promotion Award has recommended several criteria for acquiring accreditation,[16] including the gold, silver, and bronze awards. All worksites, large and small, are encouraged to apply for the awards. Further, to ensure workplace wellness policies, the award committee supports and provides incentives to encourage employee involvement, as well as analyzes the economic benefits to supporting employers and sustainable development.

Since 2007, Taiwan has begun to promote the ''Healthy Workplace Self-accreditation,'' which focuses on the physiological and psychosocial environments, workplace personal health resources, and corporate community involvement.[17] The accreditation encourages enterprises to implement health promotion and lays the foundations for Taiwan's workplace history. Since 2015, 14,456 workplaces have become health accredited and the accreditation is valid for 3 years. Most research supports the idea that accreditation can enhance an employer's motivation to provide health programs and can gradually improve employee health status in the workplace,[18,19] suggesting that a health policy may be the key to a healthy workplace. A health policy includes planning, quality control, human resources, implementation, and evaluation of health promotion in the workplace.[20]

As such, the primary factors that promote a successfully healthy workplace were to obtain stakeholder's support, such as employers and promoters.[2,6,21] The promoters are responsible for implementing the health plan in practice. Another study recommends that employers should consider corporation culture and resources and make staff actually benefit from the health activities.[22] For a successful experience in the workplace, the employers must have the ability to create a comprehensive health promotion program.[23] However, despite Taiwan's promotion of occupational health care over the last 10 years, companies have still not clearly defined the roles and functions and thus cannot provide professional services.[24]

Despite the benefits, many articles indicate that stakeholders do not support health programs.[20,22,24] In Japan, the contractors affect the promoters' willingness to participate in continuing education.[25] Further, promoters and employer have different motivations; for example, managers can increase the efficiency of allocated working hours, resulting in reduced income by disgruntled employees.[26] In contrast, promoters may support the healthy workplace plan to provide employees with a positive workplace and practices for a healthy family life. Obtaining competent support requires reaching a consensus.

The purpose of this study was to analyze accredited workplace employers' and promoters' perspectives of health promotion quality when paired with non-accredited workplaces in Taipei, Taiwan. The specific research questions we addressed were as follows: (i) what are the accredited and non-accredited workplace employers' perspectives of healthy workplace quality? (ii) What are

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TABLE 1. Participation Data from Accredited and Non-accredited Workplaces

Subjects	Employer	Promoter	Total	
Workplace Characterization	**Accredited/Non-accredited**	**Accredited/Non-accredited**	**Accredited/Non-accredited**	***X***
Large corp.	31/26	29/25	60/51	0.15
Small–medium corp.	14/14	13/14	27/28	0.22
Total	85 (45/40)	81 (42/39)	166 (87/79)	

the accredited and non-accredited workplace promoter's perspectives of healthy workplace quality? (iii) What are the differences between the employers' and the promoter's perspective of healthy workplace quality?

METHODS

Samples

We conducted a survey study that selected employers and health promoters in accredited workplaces. We then paired the accredited workplaces with non-accredited workplaces and surveyed a total of 166 people. The questionnaire on workplace health promotion quality was developed by the ENWHP.[12–14] The quantitative analysis of the questionnaire was conducted via SPSS using *t* tests.

Participants

We selected workplaces with healthy workplace accreditation between 2012 and 2014; the population was comprised of a total of 152 institutions. We classified the total workplace population into 105 large corporations (more than 300 staff), 26 medium corporations (100 to 299 staff), and 21 small enterprises (less than 100 staff). According to the distribution ratio of the large (69%), medium (17%), and small (14%) workplaces, we selected 31 large corporations, 8 medium corporations, and 6 small enterprises, to survey a total of 45 sample institutions. For comparison, we paired the accredited institutions with non-accredited workplaces according to their administrative area, industry, and sector within the survey criteria. As there were fewer small and medium workplaces, we combined the categories. Finally, of 180 questionnaires delivered to employers and promoters, 166 were recovered (92.2%).

Measures

This healthy promotion quality questionnaire was based on workplace health promotion quality criteria, which has been widely used in different studies of workplace health promotion[12–13,27] as a common evaluation method. The questionnaire included six dimensions: (1) policy: to assess the health promotion policy; (2) organization: representing human resources, environment, and atmosphere; (3) social responsibility: to assess the corporate activities that benefit society; (4) planning: the status of the promotion of healthy activities; (5) implementation: the execution status of the health program; and (6) evaluation: improvements to the work environment to provide a healthy activities program. A total of 28 items were analyzed and compared. The score was a four-point scale (from 1 ''do not agree'' to 4 ''extremely agree''). Higher scores represent a better quality healthy workplace.

The characteristic variables included sex, age, education level, seniority, department, and job title. To increase the validity of the questionnaire, five experts from the fields of labor health promotion and occupational safety made recommendations and amendments to the questionnaire. Fifty subjects were contacted in a pretest inspection, and analysis of the values of Cronbach coefficient were 0.8∼0.98.

Statistical Analysis

Participant demographics were summarized with frequencies and percentages (sex, age, education level, seniority, department, and job title). The healthy workplace quality scores were summarized by frequencies and means were compared, depending on the accreditation and company sector, using *t* tests. *P* values less than 0.05 were considered statistically significant. All analyses were performed using SPSS version 22 (IBM Corp, Armonk, NY).

RESULTS

Participant Characteristics

The study included 31 (36.4%) employers from large accredited workplaces and 26 (30.6%) employers from large non-accredited workplaces. Within small–medium institutions, 14 (16.5%) employers were from accredited workplaces and 14 (16.5%) were from non-accredited workplaces. For health promoters, 29 (35.8%) participants were from large accredited workplaces and 25 (30.9%) were from non-accredited workplaces; while for the small–medium workplaces, there were 13 (16.0%) participants for the accredited, and 14 (17.3%) for the non-accredited workplaces. In total, 85 employers and 81 promoters were surveyed and the participants' distribution was representative of the original population, and there were no statistically significant differences between participant characteristics (Table 1).

Table 2 characterizes the participants. There were 54 men (63.5%) and 31 women (36.5%) employers, and 18 men (22.2%) and 64 women (77.8%) promoters. The average age of the employers was 48.3 (range: 29 to 66 years), and the average age of the promoters was 37.2 years (range: 24 to 64 years). Both employers (37, 43.5%) and promoters (16, 19.8%) tended to have above institute level education. The average seniority of employers was 15.2 years, while the average promoter's seniority was 7.5 years, with most having under 10 years of experience. The majority of both employers (66, 77.6%) and promoters (57, 70.4%) were employed within the administration department sector. Finally, we analyzed whether sex, age, and seniority differed significantly between employers and employees.

Accredited Workplace Employer's Perspective

Table 3 shows the employer's perspective within the accreditation or company sector. For the large accredited workplaces, the highest score was for policy (3.44) and the lowest was for evaluation (3.11). Further, in the large non-accredited workplaces, the highest score was for social responsibility (3.02) and the lowest was for evaluation (2.69). In the small and medium accredited workplaces, the highest score was organizational (3.38), while the lowest was for implementation (2.79); for non-accredited workplaces, the highest score was for planning (2.86), and the lowest was for implementation (2.37). Overall, accredited workplaces scored higher than non-accredited ones. Policy management and social responsibility were higher, but evaluation was lower in the large accredited workplaces, whereas organization and planning were higher but implementation lower in small and medium workplaces.

TABLE 2. Distribution of Employer and Promoter Characteristics

Variables	Items	Employer (*n*/%) Numbers	Employer (*n*/%) %	Promoter (*n*/%) Numbers	Promoter (*n*/%) %	*X*
Gender	Male	54	63.5	18	22.2	28.81*
	Female	31	36.5	63	77.8	
Age	Under 40	14	16.5	54	66.7	43.32*
	41–50 yrs old	39	45.9	16	19.8	
	Above 51	32	37.6	11	13.6	
	Average	48.3 yrs		37.2 yrs		
Education level	Under high school	4	4.7	5	6.2	10.80
	College	44	51.8	60	74.1	
	Above institute	37	43.5	16	19.8	
Seniority	Under 10 yrs	33	38.8	58	71.6	20.39*
	11–20 yrs	23	27.1	15	18.5	
	Above 21 yrs	29	34.1	8	9.9	
	Average	15.2 yrs		7.5 yrs		
Service sector	Administration	66	77.6	57	70.4	3.71
	Medical	11	12.9	8	9.9	
	Labor safety	8	9.4	16	19.8	

*$P < 0.001$.

TABLE 3. The Non/Accredited Employers' and Promoters' Healthy Workplace Perspective *t* Test

Healthy Workplace Quality Criteria	Employers: Large Workplace A	Non-A	*t*	Small–Medium Workplace A	Non-A	*t*	Promoters: Large Workplace A	Non-A	*t*	Small–Medium Workplace A	Non-A	*t*
Policy												
1. Writes the philosophy	3.42	2.77	3.42**	3.29	2.79	1.73	3.14	2.84	1.26	2.69	2.79	−0.26
2. Integrated structures and processes	3.29	2.81	2.29*	3.29	2.64	2.76*	3.07	2.72	1.44	2.69	2.71	−0.09
3. Provides enough resources	3.39	2.85	2.72**	3.29	2.79	1.54	3.07	2.68	1.56	2.77	2.64	0.35
4. Regularly monitors progress	3.45	3.04	2.15*	3.36	2.86	1.75	3.14	2.84	1.23	2.77	3.00	−0.70
5. Training and retraining integral	3.39	2.81	3.34**	2.93	2.36	1.51	3.34	2.80	2.26*	3.08	2.43	1.56
6. Access to health-related facilities	3.68	3.31	2.34*	3.43	2.71	2.39*	3.52	3.08	2.07*	3.15	3.07	0.28
Total	3.44	2.93	3.59**	3.26	2.69	2.64*	3.21	2.83	1.93	2.86	2.77	0.33
Organization												
7. Staff have health-related capabilities	3.55	2.89	3.48**	3.07	2.50	1.90	3.17	2.76	1.80	2.69	2.71	−0.07
8. Avoid overtaxing staff	3.45	2.92	2.71**	3.36	2.50	3.24**	3.00	2.64	1.59	2.77	2.57	0.55
9. Offer of staff personal career development	3.36	2.81	2.65**	3.21	2.35	3.17**	3.03	2.84	0.88	2.69	2.50	0.58
10. Actively engage in workplace health promotion opportunity	3.26	3.08	0.99	3.43	2.64	2.60**	3.31	2.96	1.56	2.92	2.71	0.56
11. Promote a positive work environment	3.61	3.19	2.66**	3.50	3.21	1.23	3.34	3.04	1.43	2.92	3.14	−0.66
12. Take action on reintegrating staff	3.23	3.04	0.84	3.50	3.21	1.12	3.31	3.00	1.54	2.92	3.36	−1.32
13. Increase compatibility with family life	3.32	3.15	0.81	3.57	3.14	1.73	3.21	2.96	1.12	3.00	3.29	−1.13
Total	3.40	3.01	2.59**	3.38	2.80	3.14**	3.20	2.89	1.77	2.85	2.89	−0.20
Planning												
14. Workplace health promotion measures embrace the entire organization	3.58	3.04	2.83**	3.29	2.79	1.73	3.31	2.88	1.80	2.69	2.86	−0.47
15. Regular and careful workplace health promotion measures	3.25	2.92	1.55	2.93	2.79	0.49	3.00	2.68	1.30	2.31	2.64	−0.93
16. Provides public information on workplace health promotion projects	3.45	2.92	2.71**	3.14	3.00	0.40	3.14	2.84	1.25	3.08	2.57	1.12
Total	3.43	2.96	2.82**	3.12	2.86	0.91	3.15	2.80	1.61	2.69	2.69	0.01
Social responsibility												
17. Take clearly defined corporate social responsibility action	3.39	3.04	1.61	3.14	3.07	0.24	2.76	2.64	0.51	2.46	2.86	−1.25
18. Support health-related, social, cultural initiatives	3.26	3.00	1.11	2.43	2.57	−0.40	2.66	2.64	0.06	2.46	2.00	1.15
Total	3.32	3.02	1.54	2.79	2.82	−0.13	2.71	2.64	0.29	2.46	2.43	0.11
Implementation												
19. Plan, monitor, and evaluate the health promotion program	3.42	2.69	3.44**	3.00	2.36	1.88	3.24	2.72	2.22*	2.62	2.43	0.51
20. Collect information systematically and regularly	3.55	3.00	3.02**	3.07	2.57	1.78	3.14	2.72	1.59	2.54	2.43	0.29
21. Target groups are set for all health promotion measures	2.97	2.54	1.82	2.64	2.14	1.64	2.62	2.28	1.46	2.31	2.21	0.27
22. Organization and job design measures for healthy behavior	3.26	2.81	2.04	3.07	2.43	2.29*	2.93	2.56	1.63	2.69	2.29	1.26
23. Systematically evaluate and continually improve	3.19	2.65	2.55*	3.14	2.36	2.58*	2.93	2.59	1.33	2.39		−0.32
Total	3.28	2.74	2.93**	2.99	2.37	2.41*	2.97	2.57	1.79	2.51	2.37	0.45
Evaluation												
24. Impacts on organizational performance	3.16	2.54	2.79**	2.93	2.79	0.53	2.69	2.48	0.94	2.39	2.71	−1.24
25. Impacts on customer satisfaction	3.16	2.54	2.87**	3.14	2.93	0.76	2.76	2.60	0.67	2.31	2.79	−1.60
26. Impacts on health indicators	3.10	2.73	1.71	3.00	2.50	1.84	2.59	2.36	0.94	2.39	2.43	−0.12
27. Impacts on relevant economic factors	2.94	2.69	1.05	2.71	2.64	0.24	2.28	2.32	−0.19	2.15	2.36	−0.64
28. Impacts on health behavior	3.19	2.96	1.05	3.21	2.71	2.01	3.10	2.84	1.07	2.77	2.93	−0.53
Total	3.11	2.69	2.19*	3.00	2.71	1.27	2.68	2.52	0.81	2.40	2.64	−0.95

Notes: A, accredited; non-A, non-accredited.
*$P < 0.05$.
**$P < 0.01$.

TABLE 4. The Employer and Promoter Perspective

Quality Criteria	Subject	Accredited				Non-accredited			
		N	Mean	SD	*t*	*N*	Mean	SD	*t*
I	Employer	45	3.38	0.52	2.12*	40	2.85	0.58	0.25
	Promoter	42	3.10	0.69		39	2.81	0.75	
II	Employer	45	3.39	0.50	2.47**	40	2.94	0.58	0.32
	Promoter	42	3.09	0.64		39	2.89	0.68	
III	Employer	45	3.33	0.68	2.07*	40	2.93	0.67	0.92
	Promoter	42	3.01	0.78		39	2.76	0.89	
IV	Employer	45	3.16	0.75	3.14**	40	2.95	0.78	2.16**
	Promoter	42	2.63	0.81		39	2.56	0.81	
V	Employer	45	3.19	0.61	2.38**	40	2.61	0.76	0.61
	Promoter	42	2.83	0.79		39	2.50	0.83	
VI	Employer	45	3.08	0.68	3.28**	40	2.70	0.67	0.86
	Promoter	42	2.60	0.69		39	2.56	0.74	

Notes: I, workplace health promotion policy; II, organization; III, planning; IV, social responsibility; V, implementation; VI, evaluation; SD, standard deviation.
*$P < 0.05$.
**$P < 0.01$.

In the workplace health promotion policy, the total scores of accredited workplace employers were significantly better than employers in non-accredited workplaces. Employers in large workplaces rated their perspective of the written philosophies ($P < 0.01$), integrated structures and processes ($P < 0.05$), provision of enough resources ($P < 0.01$), regular monitoring of progress ($P < 0.05$), integral training and retraining ($P < 0.01$), and access to health-related facilities ($P < 0.05$) higher than employers in non-accredited workplaces. Conversely, the small–medium enterprise employers were only focused on integrated structures and processes ($P < 0.05$) and access to health-related facilities ($P < 0.05$). This indicated that accreditation workplace employers were more active in supporting health plans, health policies, and the provision of resources.

For measures of the organization dimension, accredited workplace employer's scores were significantly better than non-accredited ones. Compared with non-accredited large corporations, accredited ones were significantly better in the following criteria: offering staff better health-related capabilities ($P < 0.01$), better personal career development ($P < 0.01$), avoiding overtaxing staff ($P < 0.01$), and promoting a good working atmosphere ($P < 0.01$). The small and medium enterprises were only significantly better at avoiding overtaxing staff ($P < 0.01$), offering staff personal career development ($P < 0.01$), and actively engaging in the health promotion program opportunities ($P < 0.01$).

For planning the health promotion program, large accredited corporations also scored better than non-accredited ones. Specifically, the workplace health promotion measures of embracing the entire organization ($P < 0.01$) and informing health promotion projects by the internal public ($P < 0.01$) were better than in non-accredited workplaces. However, these criteria were not significantly different among small–medium enterprises ($P > 0.05$).

For social responsibility, employer's scores for the large, medium, and small accredited workplaces were better than non-accredited ones, but were not significant ($P > 0.05$). This indicated that workplaces have not widely promoted social responsibility, suggesting corporate social responsibility policy, social action, and advocating the concept of social responsibility were below average.

When implementing the health promotion program, the accredited large and small–medium corporation scores were greater than those of non-accredited workplaces. Specifically, for the large corporations, planning, monitoring, and evaluating the health promotion program ($P < 0.01$), collecting information systematically and regularly ($P < 0.01$), and systematically evaluating and continually improving ($P < 0.05$) were all higher than non-accredited workplaces. The accredited small–medium enterprises only scored higher than non-accredited ones within the organization and job design measures to promote healthy behavior ($P < 0.05$) and in systematic evaluation and continual improvement ($P < 0.05$).

When evaluating the health promotion program, the large and small–medium accredited corporation scores were greater than non-accredited workplaces. Specifically, accredited large corporations scored better in impacts on organizational performance ($P < 0.01$) and impacts on customer satisfaction ($P < 0.01$) than non-accredited workplaces. There were no accreditation differences among small–medium workplaces ($P > 0.05$).

As mentioned above, employers in large corporations rated the policy, organization, planning, implementation, and evaluation of the health promotion program higher than employers in non-accredited workplaces. The small–medium accredited enterprises scored better in policy, organization, and planning. For the most part, accredited employers had a more positive viewpoint than non-accredited ones.

Accredited Workplace Promoter's Perspective

Table 3 shows the data representing the promoter's perspective within the accreditation or company sector. Among the large accredited corporations, the highest score was the workplace health promotion policy (3.21) and the lowest was evaluation (2.68). Among the large non-accredited corporations, the highest score was organization (2.89) and the lowest was evaluation (2.52). Among the small–medium accredited enterprises, the highest score was for organization (2.86) and the lowest was for planning (2.40). For non-accredited enterprises, the highest score was organization (2.89) and the lowest was implementation (2.37). To summarize, the large accredited promoters' scores were all significantly greater, especially in integral training and retraining ($P < 0.05$), accessing health-related facilities ($P < 0.05$), and planning, monitoring, and evaluating the health promotion program ($P < 0.05$).

The Employers and the Promoters' Perspective Were Consistent

Our results indicated the accreditation employer's perspective were all better than promoters, especially for workplace health promotion policy, organization, social responsibility, planning, implementation, and evaluation ($P < 0.05$; $P < 0.01$) (Table 4). This infers employers have more confidence than promoters in healthy workplaces. This is in contrast to non-accredited workplaces, where there was no diversity in perspective, besides the social

TABLE 5. Results of the Multiple Regression Analysis of Demographic Variables and Healthy Workplace Perspectives

Variables	Parameter Estimate	SE	β	*t*
Policy				
(Constant)	2.03	0.32		6.31***
Accredited	0.31	0.10	0.23	3.13***
Promoter vs. employer	0.13	0.12	0.10	1.10
Large, small corporation	0.18	0.10	0.13	1.78
Gender	0.14	0.11	0.10	1.21
Ages	−0.01	0.01	−0.01	−0.09
Seniority	0.01	0.01	0.20	2.02*
College	0.37	0.22	0.27	1.71
Above institute	0.51	0.23	0.36	2.23*
Medical	0.14	0.16	0.07	0.91
Labor safety	0.40	0.14	0.21	2.80**
Organization				
(Constant)	2.20	0.31		7.18***
Accredited	0.24	0.09	0.19	2.53**
Promoter vs. employer	0.17	0.11	0.14	1.47
Large, small corporation[1]	0.12	0.10	0.09	1.24
Gender	0.14	0.11	0.11	1.35
Ages	0.00	0.01	−0.05	−0.50
Seniority	0.01	0.01	0.21	2.04*
College	0.40	0.21	0.31	1.94*
Above institute	0.57	0.22	0.43	2.59**
Medical	0.10	0.15	0.05	0.70
Labor safety	0.35	0.14	0.20	2.55**
Planning				
(Constant)	2.06	0.38		5.42***
Accredited	0.20	0.12	0.13	1.72
Promoter vs. employer	0.23	0.14	0.15	1.62
Large, small corporation[1]	0.22	0.12	0.13	1.82
Gender	0.11	0.13	0.07	0.81
Ages	0.00	0.01	−0.04	−0.41
Seniority	0.01	0.01	0.20	1.95*
College	0.36	0.26	0.23	1.40
Above institute	0.54	0.27	0.32	1.98*
Medical	0.05	0.18	0.02	0.26
Labor safety	0.58	0.17	0.26	3.45***
Social responsibility				
(Constant)	2.17	0.40		5.43***
Accredited	0.05	0.12	0.03	0.44
Promoter vs. employer	0.50	0.15	0.31	3.34***
Large, small corporation[1]	0.30	0.13	0.17	2.34*
Gender	0.16	0.14	0.10	1.14
Ages	−0.01	0.01	−0.13	−1.28
Seniority	0.01	0.01	0.17	1.65
College	0.20	0.27	0.12	0.74
Above institute	0.50	0.29	0.29	1.75
Medical	0.19	0.19	0.07	0.96
Labor safety	0.40	0.18	0.17	2.26*
Implementation				
(constant)	2.06	0.38		5.41***
Accredited	0.36	0.12	0.23	3.08***
Promoter vs. employer	0.24	0.14	0.15	1.68
Large, small corporation[1]	0.31	0.12	0.19	2.57**
Gender	0.02	0.13	0.01	0.14
Ages	0.00	0.01	−0.07	−0.63
Seniority	0.01	0.01	0.12	1.21
College	0.17	0.26	0.10	0.64
Above institute	0.32	0.27	0.19	1.16
Medical	0.15	0.18	0.06	0.82
Labor safety	0.49	0.17	0.22	2.89***
Evaluation				
(constant)	2.21	0.37		5.98***
Accredited	0.13	0.11	0.09	1.16
Promoter vs. employer	0.30	0.14	0.21	2.18*
Large, small corporation[1]	0.06	0.12	0.04	0.51
Gender	0.09	0.13	0.06	0.72
Ages	0.00	0.01	−0.04	−0.32
Seniority	0.01	0.01	0.18	1.65
College	0.12	0.25	0.08	0.50
Above institute	0.21	0.26	0.14	0.80
Medical	−0.02	0.18	−0.01	−0.09
Labor safety	0.28	0.16	0.14	1.72

Notes: All variables in the models have been tested for collinearity by using variables inflation factors (VIF). A VIF.21∼0.94 and less 10, it indicates that the independent variables are not collinearity.

SE, standard error.

[1]Large vs small-medium corporation.

*$P < 0.05$.

**$P < 0.01$.

***$P < 0.001$.

responsibility criterion. This suggests employers are optimistic towards health programs and efficiency, but promoters are not.

Then, we used multiple regression to analyze the background variables associated with workplace health promotion quality (Table 5). The results showed that certification correlated significantly with policy (0.31, $P < 0.001$), organization (0.24, $P < 0.01$), and implementation (0.36, $P < 0.001$). For the work role, in terms of social responsibilities (0.50, $P < 0.001$) and evaluation (0.30, $P < 0.05$), the employers had significantly stronger correlations. Both large and small corporations correlated significantly with social responsibility (0.30, $P < 0.05$) and implementation (0.31, $P < 0.01$); work seniority significantly correlated with policy (0.01, $P < 0.05$), organization (0.01, $P < 0.05$), and planning (0.01, $P < 0.05$). Educational attainment above a tertiary degree correlated significantly higher than for a high school degree in policy (0.51, $P < 0.05$), organization (0.57, $P < 0.01$), and planning (0.54, $P < 0.01$). Finally, the labor safety department, including policy (0.40, $P < 0.01$), organization (0.35, $P < 0.01$), planning (0.58, $P < 0.001$), social responsibility (0.40, $P < 0.05$), and implementation (0.49, $P < 0.001$), correlated significantly, whereas the other sectors did not.

DISCUSSION

Accredited Workplaces have the Most Positive Healthy Workplace Perspective

Employers of accredited workplaces have a more positive healthy workplace perspective than non-accredited employers, especially for policy, organization, and implementation ($P > 0.05$), irrespective of the company sector. This indicates that accredited employers agreed with the health promotion policy and were more willing to enhance workers' health status. Conversely, promoter's perspectives on policy, social responsibility, and implementation were also greater in accredited than non-accredited promoters, but this was not significant. In total, accredited employers and promoters had a more positive perspective than non-accredited ones.

Through healthy workplace accreditation, most countries provide rewards to encourage a supportive health environment for employers and improve employees' health quality. Since 2006, the workplace health promotion in the US has promoted results using awards.[16] The Singapore Government has also established the occupational safety and health accreditation, enhancing employee's physical and mental health.[15] The results of this study also support the idea that accreditation can improve health promotion quality and efficacy in the workplace.

Large Corporations have Better Quality Healthy Workplaces

Health promotion scores for large workplaces were all higher than small–medium workplaces, suggesting the workplace sector were related to health promotion quality and staff numbers were related to efficacy. We suggest large corporations perform significantly better in formulating policies, program planning, and health services than small workplaces.[28] This could also be used to develop company partnerships for encouraging health promotion programs within small–medium enterprises in the future. In contrast, the United States Department of Labor also estimated that the number of small workplaces promoting health programs increased from 25% to 44%, a more than 100 employee workplace increase, suggesting the large sector should more often push health promotion programs.[29] Claxton et al[30] suggest factors such as large enterprises being well resourced to promote health affairs and small workplaces having sufficient insurance can influence company effectiveness. Our research sheds further insight into the limitations for small and

medium workplaces, which should be encouraged to integrate partnerships and resources and improve health promotion workplace efficacy in the future.

The Accredited Employers Healthy Workplace Quality were Higher than Non-Accredited Employers

Overall, accredited employers were more likely to agree with health promotion policy, organization, and implementation in the workplace. However, planning, social responsibility, and evaluation scored lower, and this may be caused by the pooling of expertise, as well as by time and budget constraints. Supportive workplace policies are very important, as they can create a consensus between the employers, promoters, and employees to engage with the idea of health promotion. Within the Taiwan provisions of the Occupational Health and Safety Act, most workplaces have been able to build health and safety related systems and implement workplace health policy more generally.[31] In recent years, Yu[9] found policy management to be most beneficial, including manager support, health promotion measures, and maintaining a healthy environment, but evaluation scored lower. In contrast to previous work, our studies suggest health policies in the workplace are common, among which appropriate assignments and providing education and training are the most positive forces.

We also suggest corporations should develop a long-term standard foundation on corporate social responsibility. When the workplace implements social responsibility, employees will perceive institutions more positively.[32] Through this research, further support for the government should be developed using policy or mass media in the future, establishing institutions to fulfill social responsibility culture and accelerate the input of corporate resources.

In conclusion, accredited workplaces were better at supporting policies, organization, and implementation. Non-accredited workplaces were often limited by a lack of expert support and time and budget shortfalls, and these factors affected planning. These areas should be of increased focus in the future.

Accredited Workplace Employers were More Optimistic than Promoters

Employers of accredited workplaces within the health promotion program were significant better than promoters in policy, organization, planning, implantation, and evaluation ($P < 0.05$). Researchers found within large institutions that managers were willing to push comprehensive health and safety programs and promote the staff's healthy lifestyles.[33] Non-accredited employers and promoters share the same perspective on social responsibility ($P > 0.05$). Because employers have more responsibility, they are more likely to agree with the corporate social responsibility. The social responsibility can increase corporate profits, reputation, and partnerships.[34] Alternatively, Huang et al[35] revealed that most health activities have not enacted a budget and thus lack suitable health promotion planning. Experts suggest that, in order to motivate managers, companies should support and integrate health policies, as well as accept health programs as a challenge.[36] For health promoters, accreditation and sector factors showed almost no diversity.

The research found that obstacles for health programs included the lack of a budget, resources, and implementation.[37] Tung et al[38] analyzed the promoters' barriers in implementing health programs, and suggested not only the heavy workload, lack of support and funding, but also management and environmental improvement as limitations. However, promoters are willing to learn more professional skills for health promotion in the workplace. Promoters in workplaces were mostly occupational nurses in Taiwan, but they often do not understand their role and function because they cannot perform comprehensive health promotion programs effectively in the workplace.[24] Adopting a new occupational policy throughout Taiwan will provide new work guides for promoters to generate an improved self-identity regardless of their accreditation.

CONCLUSIONS

Our research indicates employers from large corporations were better than small–medium enterprises and non-accredited workplaces in healthy workplace accreditation. Further, policy, organizational, and implementation were significantly higher than in non-accredited workplaces. This suggests that for institutions in the accreditation system, establishing health policies and organizational culture are essential to achieve health-promoting qualities. Employers can also support health promotion, so they can actively participate in accreditation and lead health promotion activities in the workplace.

Promoters were only better within policy or implementing health activities and may be limited by their workload or lack of effectiveness. Another possibility is the lack of manager support in the workplace. Therefore, promoters do not participate in the accreditation at all and thus health promotion quality of promoters does not depend on accreditation. Finally, we found employer's perspective were always higher than promoters, especially in accredited workplaces, suggesting employers were more optimistic than promoters. Further, for non-accredited employers, only social responsibility scores were significantly higher than promoters, suggesting employers have more social responsibility irrespective of their accreditation.

Suggestions for Future Research

Developing Company Partnerships to Promote Health Promotion Programs

The healthy workplace accreditation was more effective among large employers. This suggests the government should continue to encourage sustainable development programs, and encourage large companies to connect to a variety of enterprises over shared resources and health services. Alternatively, a better workplace can be created by encouraging more enterprises to create different features through multiple improvements to health promotion quality in the workplace for all workers.

Strengthening Employers' Participation in the Healthy Workplace Accreditation

The healthy workplace accreditation employers are better hosted to promote a healthy workplace. In order to upgrade institutions and implement health promotion activities, the Workplace Health Promotion Center should actively encourage companies to contact consulting services. The government should also encourage employers to participate in the accreditation by assigning specific target goals, as well as providing awards and tax benefits to promote participation among institutions.

Increase Promoters' Willingness to Effectively Provide Health Promotion

Due to promoters' lack of perspective in supporting health promotion, we recommend that the government plan additional courses to enhance implementation and evaluation of worksite plans and to encourage promoters to obtain supervisory commitment in the workplace. For an in-depth analysis of the workplace effects, we could use qualitative interviews to understand their perspective of different sectors, reduce barriers to health

promotion plans, and extend healthy workplace schemes in the future.[39]

Limitations of this Study

There are several limitations to this study. First, several health promoting institutions refused the survey, which influenced the sample size. Second, some workplaces that were willing to accept the survey were motivated to develop further and thus did not represent workplaces with established health activities, suggesting they overestimated their tendencies. Finally, the small–medium samples represented insufficiently merged calculations that eliminate the population differences and represent different results.

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