

A study on a healthy workplace concept implementation

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ABSTRACT The notion of workplace health and well-being has evolved significantly in recent years. The holistic workplace health systems of today aim to provide support on many levels such as physical, social, personal and development in order to improve the overall employee quality of life both within and outside the workplace. As the world-leading organisation of health, the World Health Organisation (WHO) has come out with a guideline on Healthy Workplace (HWP). In Malaysia, the government is in the progress of evaluating and assessing the guideline with the intention of adopting it. This paper reports a survey conducted on the organisation implementing the healthy workplaces concept. The survey was conducted by interviewing members of the organisation based on the questionnaire recommended by WHO guidelines with some modifications to suit the organisation culture. The survey attempts to incorporate ISO 14000 Environmental Management System (EMS) into the implementation of this healthy workplace concept. The survey results reveal that ISO 14000 system is able to set a framework to implement healthy workplace concept provided the organisation has a strong commitment in the implementation.

ABSTRAK Kepentingan keselamatan dan kesihatan di tempat kerja telah mendapat perhatian sejak beberapa tahun kebelakangan ini. Secara keseluruhannya, sistem kesihatan di tempat kerja pada hari ini bertujuan untuk meningkatkan kualiti hidup pekerja samada ketika berada di tempat kerja atau di luar dari kawasan kerja. Sebagai sebuah organisasi kesihatan sedunia, 'The World Health Organisation' (WHO) telah membuat satu garis panduan berkenaan dengan Kesihatan Tempat Kerja (Healthy Workplace). Di Malaysia, pihak kerajaan sedang membuat penilaian ke atas garis panduan tersebut dalam usaha untuk melaksanakannya. Kertas kerja ini memaparkan satu kajian yang telah dijalankan ke atas satu organisasi berdasarkan temuramah melalui penggunaan soalan yang telah dicadangkan di dalam garis panduan WHO dengan beberapa pengubahsuaian dilakukan sesuai dengan kebudayaan organisasi tersebut. Kajian ini berusaha memadankan 'ISO 14000 Environmental Management System' (EMS) di dalam pelaksanaan konsep kesihatan tempat kerja ini. Hasil dari kajian menunjukkan sistem ISO 14000 boleh digunakan sebagai satu rangka kerja di dalam pelaksanaan konsep kesihatan tempat kerja seandainya organisasi tersebut mempunyai komitmen yang tinggi di dalam melaksanakannya.

(Healthy Workplace (HWP) concept, Environmental Management System (EMS), World Health Organisation (WHO) Guidelines, Occupational Safety and Health Administration (OSHA), Agenda 21)

INTRODUCTION

About 45% of the world's population and 58% of the population above 10 years belong to the global workforce. In Malaysia, the labour force of 8.6 million makes up 38.7% of the 1998 total population. Their work sustains the economic and material basis of the Malaysian society which is critically dependent on their working capacity. Thus workers' health or occupational health and the well being of working people are crucial prerequisites for the productivity and are of

utmost importance for overall socio-economic and sustainable development [1].

The workplace is a hazardous environment. Occupational safety and health hazards are common in many economic sectors and affect a large number of workers. Approximately 30-50% of the workforce reports exposures to hazardous physical, biological and chemical factors and overload of heavy manual work or ergonomic factors that may affect the health and working capacity. A good number of them report

psychological overload of work leading to stress symptoms. Many workers spend one-third of their adult life in such hazardous work environments. World wide, 120 million occupational accidents with 200,000 fatalities are estimated to occur annually and approximately 68-157 million new cases of occupational diseases may be caused by various exposures at the workplace [1].

It is important for workers to ensure that they are working in a safe and healthy workplace. According to the World Health Organization (WHO) publication: Global Strategy on Occupational Health for All in 1995, only 5%-10% of workers in developing countries and 20%-50% of workers in industrialized countries have access to adequate occupational health services. In a recent occupational health survey data indicate that 40-50% of the world's population is exposed to hazardous conditions in the work place. Therefore it is estimated that there will be between 68 million to 157 million of new cases of occupational diseases arising as a consequence of various types of work related-exposures.

Many activities that have high levels of potential risk can be engaged in safely. How can risk be minimized so that they can be decreased to acceptable levels? This can be done by identifying sources of hazards and by assessing the risks of accidents inherent to these hazards. Most hazards in the workplace are already known and their associated risks have been defined. Techniques to avoid unnecessary exposure to these hazards have been developed. How can one learn what others have discovered about these risks? The best way is to work with an experienced person while learning one's job [2].

A healthy workplace simply means a place where everyone works together to achieve an agreed vision for health and well being of workers and the surrounding community [3]. From this definition, healthy workplace involves multi-institutional and multi-dimensional effort, it also involves commitment and partnership to implement a healthy workplace initiative be it a national, provincial or local setting. An unhealthy workplace has far-reaching effects, it ranges from poor work performance, susceptible to ailments, no harmony in the family to the increase of social and economical problems in the society.

It is also said that, the healthy workplace concept is a building block for sustainable development. In the Agenda 21 [4], there are quite a lot of elements related to health, safety and well being of an individual at workplace. This concept is also believed to be one of the antidotes to the increase of mental health problems.

There is a need for a system that can be implemented to improve workers' lifestyle, especially at their workplaces which they spend one third of their time. The health status of workers' workplace will shape their lifestyle both directly or non-directly, be it immediately or chronically.

For a country like Malaysia that has transcended from agriculture to industrialization with expansion into information technology, many problems have appeared in the form of ever increasing number of occupational injuries and diseases [1]. Some of the main reasons for this increasing number of injuries and diseases are attributable to the low profile and low priority given to occupational health by politicians and the public [5].

Occupational Safety and Health Administration (OSHA)

Occupational Medicine has come up with the standards that are enforced through workplace inspections, citations with abatement requirements and sometimes detailed provisions governing the OSHA enforcement programme (contained in the OSH Act) to ensure that both men and women are working in a safe and helpful working conditions [6].

The OSHA 1994 with the supportive regulations was gazetted to meet the OSH challenges in this country. Unfortunately, the Act and regulations alone will not help improve safety and health at workplace. What is needed is the inculcation of a safety and health culture amongst the workers. This can only be achieved through greater awareness of health and safety amongst all levels of workplace hierarchy. In other words, the success of such an endeavour will depend on many factors such as the level of awareness of employers and workers, the availability of training, information, research and consultation facilities; and the extent of enforcement by the government [1].

WHO Guidelines

Satisfying work in a safe and pleasant environment is a source of health and well-being. Yet the physical, psychological and organizational work environment is all too often responsible for injury and disease. A lot of challenges need to be overcome in achieving a healthy and sustainable future, one of them is to ensure health and environment are enhanced by economic development. There should be a balance for these three aspects of environment, health and economy. No doubt, industrialization has contributed vast improvement in health such as increased revenue, better living conditions and improved services, but on the other hand, industrialization is also the main culprit for introduction of health hazards to workforce and the general population. Such hazards are felt either directly through exposure to harmful agents and practices, or indirectly through environment degradation.

Mechanical factors (e.g. work processes and equipment), physical factors (noise, heat and radiation) and chemical agents are the main problems in industry, while pesticides, heavy physical work, organic dusts, biological factors (e.g. infections), and accidents are the occupational burdens in the area of agriculture. In addition 30-50% of the workers in industrialized countries experienced psychological stress, unlike environmental stressor, occupational stressor are multi-cause and it is closely related to the results from the work organization (e.g. workload, repetitive work, shift work and overwork) [7].

Another main factor for the increase of occupational hazards is the transfer of hazardous industries; the divergent needs of industrialized and developing nations often lead to a double standard in the control of industrial hazards. Established standards frequently differ between

countries and may be determined by, more often than not, economic, political and educational factors, rather than the most crucial factor- health protection.

The objectives of having a healthy workplace are to [3]:

- a. Create a healthy, supportive and safe work environment;
- b. Ensure that health promotion and health protection become an integral part of management practices;
- c. Foster work styles and lifestyles conducive to health;
- d. Ensure total organizational participation; and
- e. Extend positive impacts to the local and surrounding community and environment.

Two concepts are crucial to the achievement of healthy workplaces; the protection of health and the promotion of health. Basically, the healthy workplace will bring benefits to both organization and employee as shown in Table 1.

The development of healthy workplace requires efforts from all sectors at national, provincial, local and workplace levels. A relevant government department should initiate the process. Key participants are the government departments responsible for enforcement of occupational and environmental health legislation. Ideally the healthy workplace initiative should be part of the implementation strategy of all relevant regulatory agencies and service providers. In this way, the health and labour inspectors, environmental managers, health centre personnel, employer associations and trade unions will support the initiative and convey a similar message. If the regulatory agencies do not endorse the initiative and its

Table 1. Benefits of HWP to Organisation and Employee [3].

To the organization	To the employee
A well-managed health and safety programme	A safe and healthy work environment
A positive and caring image	Enhanced self esteem
Improved staff morale	Reduced stress
Reduced staff turnover	Improved morale
Reduced absenteeism	Increased job satisfaction
Increased productivity	Increase skills for health protection
Reduce health care/insurance costs	Improved health
Reduced risks of fire and litigation	A healthy family and community

guidelines, it will not be effective.

Other stakeholders in this initiative include occupational health and safety organizations, health promotion/public health organizations, health insurance providers, environment health and protection groups and consultants in organization development.

In order to implement the healthy workplace concept, the following steps need to be taken [3]:

- a. Ensure management support
- b. Establish a coordinating body
- c. Conduct a needs assessment
- d. Prioritised needs
- e. Develop an action plan
- f. Implement the action plan
- g. Evaluate the process and outcome
- h. Revise and update the programme

There are some components and checkpoints that are used to indicate or reflect the major elements of a healthy workplace, which are [3]:

- a. Workplace policies
- b. The organizational environment
- c. The physical environment
- d. Lifestyles and personal health skills
- e. Health services
- f. Impact on the external environment

These checkpoints provide example and criteria whereby an organization can use to measure their progress in becoming a healthy workplace. The list is not all-inclusive. In fact, there may be other checkpoints more relevant to the situation in particular countries and workplaces.

Agenda 21

Since Healthy Workplace is a building block for sustainable development, workplace related issues have been emphasised in the Agenda 21 document [4]. There are 4 sections and 40 chapters in this document. Three out of four sections have mentioned workplace related issues, namely:

Section 1, Chapter 6: Protecting and Promoting Human Health

- a. Ensure public health education in workplace is provided and strengthened

- b. Establish industrial hygiene
- c. Emphasize on preventive strategies to reduce occupational derived diseases

Section 3, Chapter 29: Strengthening the role of workers and their trade unions

- a. Give high priority to protection of working environment
- b. To reduce occupational accidents, injuries and diseases

Section 4 Element 34

- a. Transfer of environmentally sound technology

The Agenda is to protect the developing countries so that the technology transfer is safe in the workplace. In China and South Korea, there are incidents whereby developed countries have transferred hazardous technology to the developing countries whereas the technology itself was banned in those developed countries [8].

ISO Standards

Healthy Workplace concept can appear to be very abstract when it comes to the implementation stages. The ISO 14000 system is one of the ideal systems that could set a framework or template in the implementation of this concept.

Through the Environmental Management System (EMS) of the ISO 14001, management can incorporate the healthy workplace concept to the policy of the organization. This will provide direction and a sense of purpose when the organization is implementing the concept. During the policy setting, healthy workplace implementation progress can be quantified and made tangible to everyone in the organization.

The EMS can also strengthen the commitment of healthy workplace implementation in every level of the organization since it needs to submit a progress report based on the EMS requirement and improve the system continuously [9]. There will be a close monitoring and self-corrective programme in the EMS, audits should be conducted to ensure that the healthy workplace concept is adopted effectively and align with the need of the organization.

The EMS also requires the organization to comply with various legal aspects; some of the regulations involved are linked to the implementation of healthy workplace (e.g. Factory and Machinery Act, Occupational Health and Safety Act). In addition, EMS also requires an emergency response plan to be in place, and a constant training and drill needs to be conducted for these purposes. These are non-direct ways to ensure that the workplace is safe and the sense of security can be instilled in every staff.

METHODOLOGY

An assessment on the implementation of a healthy workplace concept was conducted according to WHO Regional Guidelines for Healthy Workplace where 2 tools were being applied:

A) Observation Survey

A workplace inspection was conducted at an organization named ABC to identify the hazards and potential health risks in the physical and organizational environment. Collecting administrative information and documentation were also part of this activity.

B) Questionnaire Based

The questionnaire used is based on WHO HWP guidelines but has been modified to suit the local culture and the background of the target organization. Interview session was added as a tool for data collection, the respondents were interviewed when they were answering the questionnaires. In following this approach, the researcher was able to gather more information for the study.

A comparison was also carried out against an organisation that has conducted the Healthy Workplace survey. This organization known as XC is a manufacturing company and a subsidiary of a big corporation and has a different background and setting from ABC company.

In the results and discussion section, the constraints and barriers of implementing the concepts were discussed. Furthermore, suggestions were also presented in implementing the HWP concept in Malaysia and the related agencies involved were highlighted.

RESULTS AND ANALYSIS

A) Observation Survey

Background of organisation

ABC organisation consists of 6 laboratories and has 2 working shifts.

Availability of Facilities

The facilities were rated according to the following criteria:

Criteria	Explanations
Good	The facilities are more than sufficient and well-maintained
Average	The facilities are sufficient, but could not cater for additional worker
Below Average	The facilities is in place but not sufficient and lack maintenance
Poor	No such facilities

The facilities of the organization can be divided into two major categories:

The Welfare Facilities

In order to meet the basic and recreational needs of the workers, several facilities are provided and the ratings are shown below:

Facilities	Rating
Sport facilities	Below Average
Cafeteria	Average
Meeting Room	Average
Car Park	Average

The Sanitary Facilities

There are three toilets allocated for the female staff and another three for the male staff. However, only one facility is situated near to the workplace for both groups of staff. The rating for the sanitary facilities is just average.

Workplace Assessment

Laboratory Work Practices

Since ABC is an ISO 14000 certified company, internal audit is frequently conducted. Prior to the certification, the audit team observed that the storage of the chemical is unsystematic and hazardous; acids are stored together with flammable chemicals, virgin chemicals are stored with used chemicals. In other words, chemicals are not stored according to the hazard category and incompatible chemicals are not separately stored. It is also found that chemicals

are not labelled properly and some of the chemicals are received without the Material Safety Data Sheet (MSDS). The disposals of the chemical do not follow the first in first out basis, and many of the waste chemicals are stilled stored in the laboratories. Some of the workers have the wrong perception that they need to dispose the waste chemicals only once the quantity achieves a certain level. Through the EMS programme, the laboratory work practice is improving progressively

Waste

Proper handling, storage and disposal of wastes are extremely important to the overall safety program. ABC company has contracted out the waste disposal to a vendor but minimum monitoring has been carried out on the performance of the vendor. There were incidents whereby the vendors did not collect the waste on time and records of the collection were not kept up to date. Again the issue is brought up through the EMS audit team, and audit has been conducted on the vendor in order to improve the situation.

Lack of Personal Protective Equipment (PPE)

Suitable safety clothing and personal protective equipment (PPE) can protect the workers from contamination and injuries. The type of operations and the levels of potential hazards will determine the extent and kinds of clothing and equipment to be selected for any particular activity. It is the top management responsibility to select the proper protective clothing and equipment. When these are selected and made available, it is the task of the supervisor to provide adequate training for the right usage of the clothing and equipment and to assure that employees are using and maintaining them properly.

The observation survey reveals a majority of the laboratory personnel are safety conscious where some of the laboratories are equipped with PPE. A number of laboratories are not equipped with PPE like goggles and facemasks. However, gloves and first aid kits are available in all laboratories. Under the EMS training programme, the PPE issue is highlighted as one of the area whereby training is urgently needed.

B) Questionnaire Analysis

The survey was also conducted to look on the efforts made by employees to improve their

health and this was analysed based on the three categories, namely, health promotion issues related to job and life and health interest. As for the comparison with other organisation sector, only the data of the key question was provided in order to protect the confidentiality of the company involved. The data obtained has been rounded up to the nearest percentage.

In general, occupational stress is a problem that is given less attention by most of the management. It can cause negative effect to the worker, company and the country. Stress occurs when there is an imbalance between demand and a person's capability to meet the demand. Stress is an adoptive response, which is a result of any external action, situation, or event that places physical and/or psychological demand on a person [10]. It is important to tackle workplace stress since it can actually deliver positive benefits to the organisation, in the form of; reduced sickness absence levels, improved morale, improved production, and better ability to cope with change [11].

From the survey conducted, it can be observed that there are several factors that cause stress at workplace, such as; time pressure, deadlines, work tires mentally and conflict with people. This is also known as job related stress. From Figure 1, it shows that about 37% of respondents believe that stress is due to conflict with people. This can be highlighted as 'role conflict'; the conflict on the priority between family and work, conflict between the one own principle or belief and company policies as well as conflict between workers and management.

Another response that is about 33% believes that stress is also caused due to work tires mentally. This could be categorised as 'inadequate work task'; e.g. too much responsibility, overload of quality and quantity of work, no control over the job, shift work and on call or standby call.

Figure 2 shows the results on the planned efforts to improve health. The highest response which is 81.5% believes that 'eat better' is the most important factor for better health, followed by exercise, stress reduction and controlling blood pressure.

Figure 3 and 4 represent the results on health promotion issues. About half of the respondents

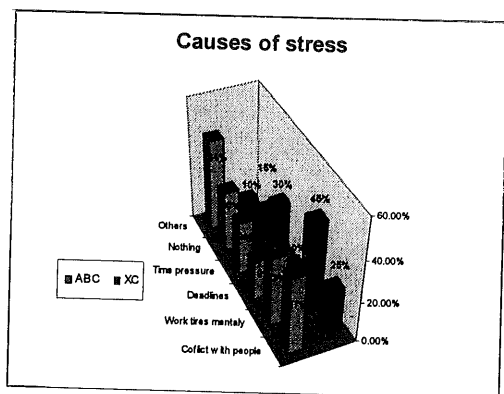


Figure 1. Causes of stress health.

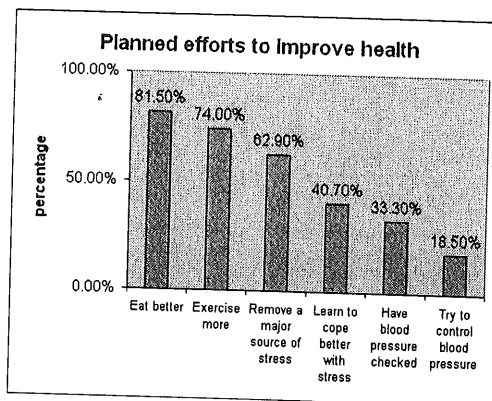


Figure 2. Planned efforts to improve.

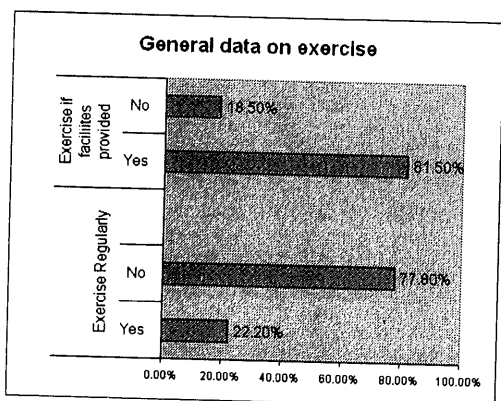


Figure 3. General data on exercise

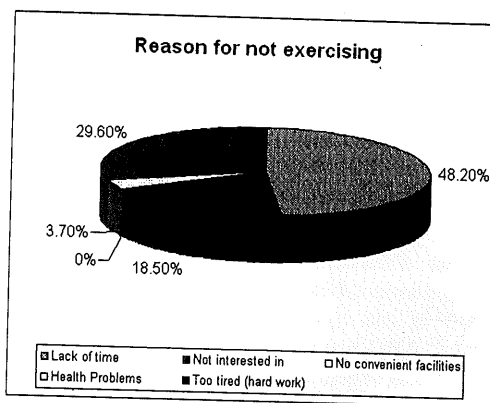


Figure 4. Reasons for not exercising

declared that they do not exercise regularly due to lack of time, however, they wish to exercise regularly if the exercise facilities are available at their workplace.

Figure 5 represents the response obtained for health interest category. It is heartening to note that people are aware of the importance of safety while conducting tasks at workplace. 80% of the respondents mentioned that they do not carry out hazardous task until it is proven safe.

DISCUSSION

From the survey results and the interview session with the staff, ABC company needs to understand the constraints and barriers in their implementation of the healthy workplace (HWP) concept.

ISO 14000 offers a system or framework of implementation for the organization to tackle the health hazard issues faced by ABC. The final step in HWP realization as mentioned in the theory augurs well with the continual improvement element of ISO 14000. Although, the EMS of ABC still needs to be enhanced, if they follow the continual improvement plan well, the HWP concept can be improved progressively under the EMS. An example would be to incorporate HWP in the EMS policy and environmental management programmes as it will ensure good accountability for the HWP implementation.

The implementation of HWP, involve the commitment of the whole organization. Everyone from the top management to the laboratories technologists need to be serious in adopting HWP concept at their workstations. There is a lack of group work and the delegation of tasks is not clear in certain area. Due to the lack of sense of

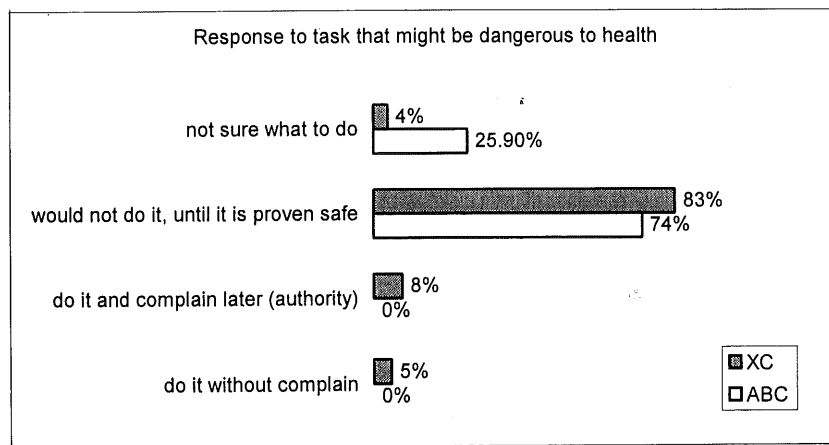


Figure 5. Response to task that might be dangerous to health.

belonging and fixed mindset among the staff, commitment in adopting HWP is still quite weak in ABC.

The HWP concept is still quite new in Malaysia. Available training programmes are still limited. ABC has difficulties in getting expert for the HWP implementation. In addition, the awareness of HWP is still low in the organisation. In this situation, ABC needs to be involved in Agenda 21 and Local Agenda 21 and other HWP related activities either locally or internationally in order to have a better understanding.

From the results of the questionnaire, most of the staff complained that the air quality is bad and the workspace is poorly designed. During the interview some of the staff complained that the confine workspace makes them feel uneasy and thus affect their work performance. Looking back to the building structure, the buildings are structured with high ceiling and should have good ventilation supposedly. However, with the setting up of air condition system the condition was changed. Hence, in order to address the complaints of the workers ABC needs to develop a programme on air condition maintenance and faithfully implementing it in order to improve the quality of air.

Next, there is a need for ABC to have frequent internal and vendor audits. Audit is not only a progress review of the system but it is also a fact-finding tool for the organisation. The information and observations from the audits are useful for the organization to plan for its future, especially in their plan for HWP implementations. Audits

also ensure regular monitoring of the vendors and maintain frequent communication with them. This will ensure that vendors are reminded about their commitments in assisting ABC to achieve HWP.

CONCLUSIONS

The WHO guidelines for HWP does provide a template for ABC in their HWP system, but ABC needs to revise the system in order to suit their own requirements. In short, ABC is at the stage of formulating an action plan for their healthy workplace concept. This stage can be done effectively based on the observations from the observation survey, the questionnaire results, and the ideas contribute by the staff during the interview sessions.

However, there are still a lot more of trainings, programmes (e.g. awareness campaign, banner and posters display) and activities (e.g. reward system or incentives) to be implemented in order for ABC to become a champion in HWP. In spite of that, the concept is workable for ABC because of their commitment and the EMS system that is already in place. As long as ABC follows an action plan that is designed base on its own situation and willing to revise it regularly to suit the progress, HWP can be implemented smoothly in their organisation.

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