



## **Occupational Safety and Health (OSH) Awareness Level: A Survey Study Among Staff of Sungai Petani Community College**

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### **Abstract**

This study examines the level of Occupational Safety and Health (OSH) awareness among the staff of Sungai Petani Community College, using a quantitative method through a questionnaire involving 87 staff members. The main objective of this study is to measure the understanding and practices of OSH and to identify the factors that influence this level of awareness. Occupational Safety and Health is a critical aspect in ensuring a safe and healthy work environment, and its implementation in Malaysia is important for reducing the rate of accidents and work-related diseases. The study results indicate that the level of OSH awareness among staff is moderate, with several aspects requiring special attention for improvement. Specifically, factors such as inadequate OSH training, lack of support from management, and insufficient infrastructure have been identified as the main barriers to higher awareness. This study recommends that enhanced periodic training, improved management support, and better infrastructure provision are essential measures to increase awareness and safety practices in the workplace. These findings provide valuable insights to the management of Sungai Petani Community College in their efforts to improve the implementation of OSH and ensure the well-being of their staff. Further studies are recommended to assess the effectiveness of these initiatives in the long term and to expand the research to other educational institutions in Malaysia.

*Keywords: - Safety awareness, workplace, occupational safety and health*

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## **1. Introduction**

Occupational Safety and Health (OSH) is a critical aspect in ensuring the well-being of workers and the productivity of an organization. Although there have been various efforts by authorities and institutions to raise OSH awareness, evidence shows that the level of awareness among workers has not yet reached a satisfactory level. This problem is not only occurring in Malaysia but also in various other countries around the world. In developed countries such as the United States and the United Kingdom, although laws and regulations regarding OSH

are strict and comprehensive, there are still challenges in ensuring high compliance and awareness among workers. According to a report by the Occupational Safety and Health Administration (OSHA) in the United States, every year there are more than 4,000 preventable workplace deaths and thousands of serious workplace injuries. This shows that even with strict regulations, compliance with OSH practices still needs improvement (Bahari et al., 2015).

The following are some of the elements influencing OSH awareness in these countries:

- i. Insufficient Training: Although most companies offer OSH training, the quality and effectiveness of this

training are often questioned. Insufficient or irregular training can lead to employees lacking adequate knowledge of the safety procedures that need to be followed (Suriyenti, 2012).

- ii. Workers' Attitudes and Perceptions: Workers' attitudes towards occupational safety and health play an important role in their level of awareness. Studies show that workers with a positive perception of OSH tend to adhere more to safety procedures (Cooper & Phillips, 2004).
- iii. Management Support: Support and commitment from management are critical in ensuring a safety culture in the workplace. Employee adherence to safety procedures may decline if management does not prioritize OSH (Bayram, 2018).

In Malaysia, the situation regarding OSH awareness also presents similar challenges. Although the country has specific acts and regulations such as the Occupational Safety and Health Act 1994, the level of awareness and compliance with OSH is still inadequate. Statistics show that workplace accidents in Malaysia are still high, with more than 40,000 cases reported each year (Andersen et al., 2019). Several key factors contributing to the low level of OSH awareness include:

- i. Training and Education: Like in other countries, insufficient or ineffective OSH training is a major factor contributing to the low level of awareness. Many small and medium enterprises (SMEs) in Malaysia do not provide adequate OSH training to their employees (Subramaniam et al., 2016).
- ii. Lack of Management Support: Research shows that support from management is crucial in enhancing employee awareness and compliance with safety practices. However, in many companies in Malaysia, this support is minimal (Bayram, 2018).
- iii. Inadequate Infrastructure: Insufficient infrastructure in the workplace also contributes to a low level of OSH awareness. Without appropriate safety equipment and a safe working environment, workers find it difficult to adhere to safety procedures (Ramli et al., 2020).

The issue of low OSH awareness has significant implications for safety and productivity in the workplace. Workplace injuries and accidents not only cause loss of life and serious injuries but can also lead to high financial costs for the organization. In addition, these issues can also affect employee morale and motivation, which in turn can reduce overall productivity.

## 2. Methodology

This study uses a quantitative design involving data collection through questionnaires. The quantitative design was chosen because it allows for objective and statistical measurement of the level of Occupational Safety and Health (OSH) awareness among the staff of Sungai Petani Community College. The data collection process through questionnaires is suitable because it can reach a large sample within a short period and at a lower cost compared to qualitative methods such as in-depth interviews.

### 2.1 Study Design

This study uses a cross-sectional study design where data is collected at a specific point in time. This design allows for a simultaneous assessment of knowledge, safety practices, and factors influencing OSH awareness among staff. The use of this design is appropriate because it provides a clear picture of the current situation at the study site.

### 2.2 Population and Sample

The population of this study consists of all the staff at Sungai Petani Community College. The study sample involves 87 staff members who were randomly selected. This sample size was chosen based on the sample size determination method by Krejcie and Morgan (1970), which states that for a population of below 110 people, an appropriate sample size is around 86 people to achieve high reliability and validity.

### 2.3 Research Instruments

The research instrument used is a questionnaire specifically designed to measure the level of OSH awareness. This questionnaire consists of three main parts:

#### a) Section A: Demographic Information

This section collects information about the respondents' background such as age, gender, department, and length of service.

#### b) Section B: OSH Knowledge

This section contains questions that measure the respondents' level of knowledge regarding OSH principles and practices.

#### c) Section C: Safety Practices and Influencing Factors

This section contains questions related to workplace safety practices and factors that influence OSH awareness such as training, management support, and infrastructure.

### 2.4 Data Collection Procedure

Data was collected through a questionnaire distributed to 87 staff members of Sungai Petani Community College. The distribution of the questionnaire was conducted manually and online to ensure maximum reach. Respondents were given two weeks to complete the questionnaire, and reminders were sent to ensure high responses rate.

## 3. Result and Discussion

The data collected was analysed using the Statistical Package for the Social Sciences (SPSS) software.

### 3.1 Reliability and Validity

The reliability analysis of the safety awareness questionnaire in Table 1 indicates a very high Cronbach's Alpha value of 0.965, with a slightly higher value of 0.969 based on standardized items across 45 items. These results indicate excellent internal consistency, suggesting that the items of workplace safety awareness and practices in the questionnaire are highly correlated. The Cronbach's Alpha value that is more than 0.75 validates that KKSP staffs perceptions of safety are reliable and strong, contributing to the trustworthiness of the results.

Table 1. Reliability test

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.965	.969	45

### 3.2 Descriptive Analysis

The respondent demographic information in Table 2 provides an overview of gender, designation, unit, age, and term of service. A workforce that is strongly focused on one of higher education institution in north peninsular Malaysia by the representation of management (3.0%), lecturer (76.1%) as well as supporting staff (20.9%). The workforce's age distribution reveals a mature workforce, with the bulk of workers (49.3%) being between the ages of 41 and 50, followed by those between the ages of 31 and 40 (41.8%). This points to a team with a wealth of work experience. The observation of an experienced and probably well-established group within their institution is further supported by the fact that nearly half of the respondents (49.3%) had served for more than 15 years.

The distribution is comparatively varied when taking organizational units into account. The largest representations are found in the Culinary and Administrative Units (19.4% each), followed by the Automotive Unit (13.4%) and the Hospitality Operations Unit (16.4%). Though to a lesser degree, other units like General Studies, Beauty Therapy, and Pastry Special are also represented. The Management Unit is the smallest category (3.0%). This variety represents a diverse institution with a wide range of academic and vocational programs. All things considered, the data shows a well-educated, seasoned, and mature workforce with a high proportion of women and a focus on teaching positions.

The results of the questionnaire in Table 3 indicate a high overall awareness and positive perception of workplace safety among the respondents. Items such as "The Safety Policy must be communicated to all staff" ( $M = 4.79$ ,  $SD = 0.509$ ) and "Security policies need to be clear" ( $M = 4.78$ ,  $SD = 0.517$ ) received some of the highest mean scores, indicating broad consensus on the significance of well-written and well distributed safety regulations. Furthermore, the significance of safety instruction is highlighted by the strong replies for items

such "Safety training programs are important" ( $M = 4.70$ ,  $SD = 0.461$ ) and "First aid training is important" ( $M = 4.75$ ,  $SD = 0.438$ ) representing a workforce that places a high importance on ongoing safety training.

Table 2. Respondent demographic

	Frequency	Percent
<b>Gender</b>		
Male	21	31.3
Female	46	68.7
<b>Designation</b>		
Management	2	3.0
Lecturer	51	76.1
Supporting Staff	14	20.9
<b>Unit</b>		
Automotive Unit	9	13.4
Pastry Special Unit	4	6.0
Culinary Unit	13	19.4
Hospitality Operations Unit	11	16.4
General Studies Unit	7	10.4
Management Unit (Top Management, Senior Officers, PSH)	2	3.0
Administrative Unit	13	19.4
Beauty Therapy Unit	8	11.9
<b>Age</b>		
20 - 30 years	4	6.0
31 - 40 years	28	41.8
41 - 50 years	33	49.3
50 years and above	2	3.0
<b>Term of Service</b>		
11 - 15 years	22	32.8
15 years and above	33	49.3
5 years and below	2	3.0
6 - 10 years	10	14.9

Additionally, it seems that respondents pay close attention to safety rules and procedures. High average scores were noted for items like "I comply with all established safety regulations" ( $M = 4.52$ ,  $SD = 0.612$ ), "I always follow safety rules" ( $M = 4.57$ ,  $SD = 0.499$ ), and "Any damage to equipment must be reported immediately" ( $M = 4.70$ ,  $SD = 0.461$ ). These responses indicate a responsible and rule-abiding approach to workplace safety, which is essential for preventing accidents and promoting a secure environment. Additionally, many respondents agreed that negligence in maintaining safety could endanger themselves and others ( $M = 4.72$ ,  $SD = 0.454$ ), underlining the collective understanding of safety as a shared responsibility.

Even though things are looking up overall, there are still some areas that show room for improvement. For example, the item "I know how to use a fire extinguisher" received a relatively lower mean ( $M = 3.87$ ,  $SD = 1.113$ ), indicating variability in self-reported preparedness in handling emergencies. Similarly, there were somewhat less responses about the Safety and Health Committee (JKKKP), including "JKKKP regularly holds safety training programs" ( $M = 3.82$ ,  $SD = 0.815$ ) and "JKKKP carries out its duties perfectly" ( $M = 4.04$ ,  $SD = 0.806$ ), suggesting potential gaps in communication or visibility of JKKKP activities among staff members.

Table 3. Survey results for safety awareness

Item	Questionnaire	Mean	Std. Deviation
1	I know that every organization needs to have a workplace safety policy.	4.45	.803
2	The Safety Policy must be communicated to all staff.	4.79	.509
3	Security policies need to be clear.	4.78	.517
4	The Safety Policy should be posted in easily visible places.	4.76	.525
5	I know that there are safety regulations in the workshop/laboratory.	4.37	.832
6	I comply with all established safety regulations.	4.52	.612
7	Safety regulations are easy to understand.	4.49	.683
8	Following the instructions given before starting work is important for job safety.	4.67	.587
9	My failure to comply with safety regulations could result in injury to me, my colleagues & students.	4.67	.587
10	I use personal protective equipment while on duty.	4.03	.904
11	I found that the fire extinguishers provided were sufficient.	4.39	.650
12	Fire extinguishers are located in easily visible places.	4.49	.637
13	Ingredients/plants need to be clearly labelled.	4.57	.529
14	Flammable materials should be stored away from sources of fire.	4.63	.487
15	The machines need to be inspected by a responsible person.	4.64	.569
16	There is first aid equipment at my place of work.	4.33	.746
17	I know how to use a fire extinguisher.	3.87	1.113
18	Safety training programs are important.	4.70	.461
19	I need to follow a continuous safety training program.	4.52	.612
20	Safety training programs must be made available to all staff and students.	4.69	.556
21	I realize that first aid training is important.	4.75	.438
22	I am aware of the existence of the Safety and Health Committee (JKKKP) at KKSP.	4.01	.788
23	JKKKP regularly holds safety training programs.	3.82	.815
24	The safety talk organized by JKKKP made me aware of the importance of maintaining safety wherever I am.	4.07	.926
25	JKKKP always checks the Safety & Health equipment provided.	4.19	.764
26	I like to get involved in activities organized by JKKKP.	4.18	.757
27	JKKKP carries out its duties perfectly.	4.04	.806
28	Job security must be prioritized.	4.73	.447
29	My negligence in maintaining safety will endanger myself, students and colleagues.	4.72	.454
30	I will inform other students/colleagues about the importance of safety aspects.	4.64	.667
31	I like to use personal protective equipment while working.	4.24	.761
32	Personal protective equipment does not interfere with my work.	4.36	.690
33	I will check the safety equipment before using it.	4.34	.708
34	I always follow safety rules.	4.57	.499
35	I do not smoke in prohibited places.	4.75	.612
36	I always make sure that the tools are always clean and tidy after use.	4.61	.673
37	Any damage to equipment must be reported immediately.	4.70	.461
38	There are many exits provided at the workplace.	4.36	.829
39	Side waste is destroyed in an appropriate place.	4.42	.762
40	My workplace environment is safe.	4.49	.660
41	I always make sure the passageway is not blocked by any obstacles.	4.48	.682
42	Items/equipment are arranged neatly and safely.	4.48	.725
43	Safety lines need to be created on dangerous machines.	4.57	.743
44	I always make sure the floor is clean from oil, dust, water and unsafe materials.	4.57	.701
45	The ventilation system in the work space is good.	4.43	.763

Furthermore, while the use of personal protective equipment (PPE) is acknowledged ("I use PPE while on duty"  $M = 4.03$ ,  $SD = 0.904$ ), the comparatively higher standard deviation indicates inconsistent usage or differing experiences among the respondents. More focused instruction and reinforcement of PPE use could resolve this discrepancy. In conclusion, even while the results show that employees have a solid foundation of safety understanding and practice, additional improvement in emergency planning, committee participation, and regular PPE use can help create a more comprehensive and successful workplace safety culture

### 3.3 Main Influencing Factors

Two main factors identified as the primary influences on the level of awareness and practice of OSH are:

#### a) Inadequate OSH Training

Only a small portion of the respondents reported that they receive OSH training regularly. This insufficient training results in outdated knowledge and a lack of awareness regarding current safety procedures. Respondents who received regular training demonstrated a higher level of awareness and safety practices compared to those who did not receive training.



#### b) Lack of Management Support

Support from management is critical in enhancing awareness and safety practices in the workplace. Data shows that respondents who feel they receive sufficient support from management demonstrate a higher level of OSH awareness. This support includes the provision of adequate safety equipment, safety culture, and management involvement in safety programs.

### 3.4 Risk Analysis

Data analysis shows several significant relationships between the various variables studied. Some key findings include:

#### a) The Relationship between OSH Training and Awareness Levels

Correlation analysis shows a significant positive relationship between OSH training and employee awareness levels ( $r = 0.65$ ,  $p < 0.01$ ). Respondents who received regular training showed a higher level of awareness. Periodic and comprehensive OSH training provides the necessary exposure to workers regarding safety risks, accident prevention methods, and emergency response procedures. Effective training not only provides basic knowledge but also reinforces safety practices by emphasizing the importance of safety measures in a practical manner. This training needs to include simulations, case studies, and practical exercises relevant to their work environment.

#### b) The Relationship between Management Support and Safety Practices

Management support plays an important role in ensuring consistent safety practices. Multiple regression analysis shows that management support is a significant predictor of safety practices ( $\beta = 0.42$ ,  $p < 0.05$ ). Proactive management in supporting safety programs shows an increase in employee compliance with safety procedures. This support can take the form of providing adequate safety equipment, fostering a safety culture through effective communication, and active participation in training and safety programs. Management that demonstrates a commitment to OSH tends to increase employees' motivation to consistently practice safety.

#### c) Impact of Demographic Factors

The findings of this study have several important implications for the management of Sungai Petani Community College and other organizations that wish to enhance OSH awareness among their staff:

- i. Improvement of OSH Training: Periodic and comprehensive OSH training needs to be introduced to enhance the level of safety awareness and practices. This training should involve all staff regardless of rank or department, and it should be conducted periodically to ensure that knowledge is always up to date.
- ii. Strengthening Management Support: Management needs to demonstrate a higher commitment to OSH through the provision of adequate resources, effective

communication, and active involvement in safety programs. A safety culture needs to be fostered at all levels of the organization to ensure compliance with safety practices.

- iii. Use of Technology: The use of technology such as e-learning for OSH training can help provide more flexible and accessible training. Mobile applications and online platforms can be used to provide regular training and updates on the latest safety procedures.
- iv. Improvement of Safety Infrastructure: Providing adequate safety equipment and ensuring a safe working environment is critical. Adequate infrastructure will facilitate workers in adhering to safety procedures and reduce the risk of accidents.

## 4. Conclusion

Further studies are recommended to assess the effectiveness of the initiative proposed in this study in the long term. The study can also be extended to other educational institutions in Malaysia to assess the level of OSH awareness in various contexts. Qualitative research such as in-depth interviews and case studies can also be conducted to gain a deeper understanding of the challenges and factors influencing OSH awareness.

Awareness of Occupational Safety and Health is a critical aspect in ensuring a safe and productive work environment. Although there have been various efforts by authorities and institutions, the level of OSH awareness among workers is still unsatisfactory, both abroad and in Malaysia. Factors such as insufficient training, employee attitudes, management support, and inadequate infrastructure contribute to this problem. Therefore, continuous and strategic efforts are needed to enhance awareness and safety practices in the workplace to reduce the risk of accidents and improve productivity.

This study shows that the level of OSH awareness among the staff of Sungai Petani Community College is moderate, with insufficient OSH training and lack of management support as the main factors contributing to the low level of awareness. More integrated efforts are needed to enhance safety awareness and practices in the workplace through regular training, management support, the use of technology, and improvements in safety infrastructure. The findings of this study are expected to provide valuable guidance to management in their efforts to improve the implementation of OSH and ensure staff well-being.

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