
Technology Teachers' Knowledge, Attitudes, and Practices of Occupational Health and Safety in The School Workshop

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ABSTRACT

The study investigated technology education teachers' knowledge, attitudes, and practices vis-à-vis occupational health and safety in the school workshop. Also, the influence of technology teachers' gender was determined. The research method used in the study was a descriptive-correlational survey. The design is appropriate for determining the relationship between the research variables. The respondents for the study consisted of two hundred and seventy-six (276) technical college teachers. The study was guided by three objectives. A structured questionnaire was used to collect the data. The reliability coefficient of the instrument yields 0.89 using the Cronbach alpha. The statistical tools used for data analysis were an independent sample t-test, Pearson moment correlation, and multiple regression analysis. The study found that there was a significant effect of gender on technology teachers' attitudes and knowledge; however, gender did not have a significant influence on the on the practice of occupational health and safety among technology teachers. Significant relationships exist between knowledge, attitude, and practice towards occupational health and safety. Attitude and knowledge were significant predictors of occupational safety and health practices. Consequently, the study recommended, among others, that occupational safety and health training should be provided to improve technology teachers's safety practices. To better predict teachers' knowledge and attitude towards safety practices, the employer should emphasise the importance of safety and provide workers with safety precautions and appropriate clothing (personal protection equipment). While on the job, effective procedures and corrective activities should be implemented in the school workshop to prevent and reduce the occurrence of accidents.

Keywords: Attitudes, Knowledge, Occupational Health and Safety, School Workshop and Technology Teachers

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INTRODUCTION

Meaning and Aim of Occupational Health Safety

Occupational health, safety, and environment (HSE) describes a unit or division in an organisation that is responsible for adhering to and protecting workplace health and safety rules and regulations, as well as environmental protection. The International Labour Organisation (2012) defines occupational health as the prevention and maintenance of employees' physical, mental, and social well-being in all professions. The prevention of health problems among departmental employees from hazards caused by health-harming factors, as well as placement, encompass health, safety, and the environment—the worker's health in an occupational

environment that is appropriate for his physiological and psychological abilities. In spite advocating for the adaptation of work to men and each man to his occupation, occupational health is largely ignored in most developing countries due to overwhelming social, economic, and governmental challenges. Occupational health and safety in the school workshop is an essential component of technology education. It involves the knowledge, attitudes, and practices of technology teachers for maintaining a safe and healthy learning environment.

Occupational health's main objective is to avoid disease through health education, targeted protection, early identification and treatment, limiting and rehabilitation of disabilities, and other means (Adebola, 2014). Safety and health practices, whether in a school workshop or an industrial setting, have become essential elements of occupational health as a result of the various methods, training programmes, and policies used by organisations, employers, labour unions, and government agencies to ensure strict adherence to safety regulations. Because workers should naturally be concerned about their wellbeing, the most important thing to do is to put safety measures in place to prevent injuries to workers while also protecting the environment and equipment. Ideally, occupational hazards should be identified, recorded, kept an eye on, and controlled. Health refers to the protection of the workforce's minds and bodies from illness caused by workplace materials, processes, or techniques, whereas safety refers to the protection of employees from physical injury (Hughes & Ferret, 2008).

Safety is defined as the absence of any risk or damaging incident (Mulinge, 2014). Compliance with occupational health and safety standards aids in the achievement of material and economic objectives, as well as the provision of high quality and performance in the workplace. Since most of us spend our entire lives at work, keeping a secure working environment and a healthy mind and body are critical issues (Tung & Yen, 2000; Xu, 2001). Recent globalization and industrialization have exposed employees to a growing number of occupational hazards. The global workforce's health and exposure to occupational risks show significant differences between and within nations (Ahmed & Newson-Smith, 2010). Aderaw (2011) observed that only a small percentage of international workers (5–10%) have access to occupational health services. In general, young workers aged 16 to 19 have twice the injury incidence of all workers (Bureau of Labor Statistics, 2000; The National Institute for Occupational Safety and Health, 2004).

The Nature and Relationship Between Technology Education, Knowledge, Attitude, and Safety Practices

Technology and Vocational Education provides students with programmes that enable them to participate in a variety of technical and vocational fields, such as technology, which includes automobiles, buildings, electrical, metal, and woodworking. According to Alavi and Sail (2015), the majority of students prefer to study technical and

vocational fields, particularly technology, which allows them to become semi-professionals and market themselves in the job market. This is due to the course's emphasis on practical learning. Learning through practical methods, also known as hands-on, accelerates the learning process because students investigate to obtain information from the actual material (Winberg & Berg, 2007). This demonstrates that the majority of practical skills are learned and taught in classrooms or laboratories. Students who use practical learning methods are more likely to be involved in accidents and put their personal safety at risk while studying and doing practical work (Hidayat & Wahyuni, 2016).

Knowledge, Attitude, and Practice (KAP) is a tool for community educational evaluation (Kaliyaperumal, 2004). This can also be used to examine health behaviour and safety habits in order to promote health more effectively (Hausmann-MuelaAnnan, 2003). Required safety training was considered a burden for companies in the past. However, trends in recent times have revealed that a reduction in injuries is not the only benefit of safety training. Other benefits include better organisation management and worker relations, improved worker morale, increased production, and lower workers' compensation insurance costs (Sinclair, O'Toole, & Seo, 2004). Some reasons for most developing countries not implementing the safety policy, according to the World Bank (2007), are a lack of an effective enforcement system, a lack of information and accurate records of occupational diseases and accidents, and a lack of basic professional training in occupational health and safety.

The nature of technical educational institutions and universities is focused on workplace training of human resources rather than academic research. Theoretically speaking, since every graduate from technical institutions and universities will enter the labour force, maintaining good health or paying attention to workplace safety should be a basic skill for each student (Su-Chang, 2010). Knowledge is defined as understanding and skills gained through experience and/or education. Knowledge of possible occupational hazards and safety is essential for developing a positive attitude that will guide behaviour (Hughes & Ferret, 2008). Knowledge is defined in this context as the skills and information that technology educators are expected to have, which will promote health and safety practices in school workshops and industries. Knowledge of workplace health and safety practices refers to the ability to spot hazards and engage in safety practices, which is primarily acquired through in-school professional training, though some can be acquired through pre-employment work ethics orientation. Technology teachers and their students must have extensive knowledge of the workshop's potential dangers as well as the proper use of safety equipment and procedures.

According to WHO (2012), the rational model of health promotion assumed that increased knowledge would result in a positive mindset and, as a result, good behaviour. As an important variable in the study, teachers' attitudes towards occupational and safety practices can have a significant impact on how they practice. A positive attitude towards safety can result in the consistent implementation of safety precautions and the establishment of a safety-conscious culture in the workshop. Attitude can be viewed as an emotional or neural state of preparedness established through experience that influences an individual's dynamic or direct reaction to all objects and situations. Attitude is a person's disposition or perception of a circumstance (Wu, 1999). In this study, attitude can be defined as the way practitioners in schools, workshops, and industries manage occupational health and safety issues. The word attitude refers to an individual's feelings, beliefs, and proclivity to behave as they do. Thus, the feelings, beliefs, and predispositions of technology (practitioner) teachers reflect on how they managed health and safety problems in school workshops or industries. An attitude is an acquired ability to respond consistently, positively or negatively, to a specific object.

Practice refers to the actual safety measures taken by technology teachers in the workshop. It includes using safety equipment, following safety procedures, and providing students with safety training. To address significant hazards or deal with circumstances that may lead to significant risks or liabilities. Technology teachers should develop safe work practices which reflect the institution's approach to controlling hazards. Safety practices are guidelines and procedures used to prevent workplace injuries, illnesses, and deaths. Written instructions that demonstrate how to complete a task with the least risk to personnel, equipment, materials, the environment, and processes are usually termed safe work practices. They are a set of specific steps that guide technology teachers and their students through a task from beginning to end in chronological order. A study on how to enhance occupational health and safety practices in schools suggests that technology administrators play a critical role in ensuring health and safety procedures in technical vocational institutions. It behoves technology administrators to organise training, seminars, audits, technical support, cooperation among institutions, and the appointment of an occupational health and safety specialist.

Technology Teachers' Perception of Occupational Health and Safety Practices

Perception refers to the processes by which an individual gets information about his surroundings, which include seeing, hearing, feeling, tasting, and smelling (Hughes & Ferret, 2008). It is related to how technology instructors perceive health and safety practices in school workshops. Perception according to Olabiyi and Chinedu (2018), refers to the manner in which one thinks about something and ones' idea of what that thing constitutes. It can also be described as the ability to understand the true nature of a subject especially as it affects our environment. Perception is more than just feeling. It correlates, integrates, and

comprehends various sensations and information from various organs of the body, allowing a person to identify things and objects to which the sensations pertain. Because technology teachers' behavior is based on their perception, we can predict their behavior toward health and safety practices in school workshops by knowing their current perception of the environment. Thus, knowing the perception of technology teachers toward occupational health and safety is critical.

Since learning is a process which is characterized by a series of changes in behaviour or a change in behaviour that result from an activity, training or observation. It is therefore expedient to explore technology teachers's perception regarding their attitude towards occupational health and safety practices. There is an urgent need to address common occupational health and safety challenges such as non-literacy, a lack of basic infrastructure, dearth of competent workforce, ineffective health and hygiene, poor nutrition, a lack of research, and reduced collaboration between the social sciences and medicine (Prabhakara, 2002; Pool & Geissler, 2007). Because worker's health and safety have been acknowledged as basic human rights, all available measures, including medical, engineering, legislative, and occupational surveillance, must be strengthened, particularly in developing countries (Gupta & Mahajan, 2003; Olabiyi & Fasheun, 2015). Knowledge, attitude, and practice (KAP) form the dynamic system that is existence itself (Lakhan & Sharma, 2010). The study carried out by Ismail, Harun, Abdul Razzaq, Irwan Mahazir, Abd Samad, and Othman (2018) on the perceptions, knowledge, and attitudes of students towards safety practices in culinary laboratories asserted that Muar Vocational Colleges' culinary laboratory practices have high levels of safety perceptions and attitudes. Indirectly, student personalities can emerge. Furthermore, the findings show that a safe and orderly culture can instill a sense of discipline and responsibility. However, there are still a few students who disregard safety procedures. This is due to students being less exposed to and unaware of the lack of safety in the culinary laboratory.

Baruji, Abdullah, Him, and Yusof (2015) conducted a study on workplace accident rates through occupational safety and health management in sewerage services. The study focuses on the importance of job-related safety and health in industries, particularly in small and medium-sized sewerage service enterprises. The study also highlights that the main issues affecting contractors' compliance with occupational safety health legal compliance is the lack of financial resources for the implementation of occupational safety and health programmes. The authors propose that important action be taken to improve the health and safety of workers through the implementation of occupational safety and health management methods that can reduce workplace accidents, the study is crucial as it sheds light on the challenges faced by SMEs in maintaining workplace safety and suggests ways to overcome these challenges. It emphasizes the importance of occupational safety and health management in reducing accident rates and ensuring a safe working environment. In addition, Olabiyi and Chinedu (2018) posited that while technical

teachers may have a good understanding and positive attitude towards safety practices, there may be a gap between their knowledge and actual practice. Furthermore, the study stressed the relevance of regular training and strengthening safety practices in technical education. The study further reveals that actual perceptions can vary based on different factors, such as geographical location, cultural context, and individual experiences, among others.

For a long time, industrialists and researchers have been concerned about the impact of gender on technology teachers' knowledge and attitudes about occupational health and safety practices. Nonetheless, no consistent outcome had developed. Bias is still prevalent in Nigeria, and it has persisted even in technology-related careers. To this end, Olabiyi (2022) and Oviawe (2021) asserted that the prevalent effects of gender bias and stereotypes in Nigeria affect specific occupations and fields of study, with some occupations regarded for males and others for females. Technology and technological industries are stereotyped as male organizations, whereas catering, typing, and some other industries are females. This gender stereotyping of subjects is of great concern in occupational safety practices and has resulted in controversial issues and conflicting reports among educators and scholars. While some scholars, such as Olabiyi (2021), Olabiyi and Awofala (2019), and Olabiyi & Chinedu (2018), reported that there is no significant difference in the safety practices in school and industrial workshops as a result of their gender, other scholars Oviawe (2021), reported that there is a difference in the safety practices of male and female students in school subjects.

Gender's Influence on Occupational Health and Safety Practices.

Gender inequalities in workplace health and safety knowledge, attitudes, and practices among technology education instructors, show that females are consistently underrepresented in technology-related employment. According to OECD surveys, there are almost four times as many males as females working in engineering (OECD, 2015). Differences between in relation to mathematics aptitude, technical drawing skill, attitude, self-concepts, interests, and occupational and lifestyle values and preferences have all been suggested as factors contributing to female underrepresentation in technology education-related fields (Eccles, 2009; Ferriman et al., 2009). Male students demonstrated higher levels of mathematics self-efficacy and preferred technical education-related jobs considerably more frequently than their female counterparts (Ketenci et al., 2020). Similarly, gender stereotypes were prevalent in educational settings, where girls performed poorly in mathematics (Riegle-Crumb & Peng, 2021). Despite the recent increase in female participation and accomplishment in mathematics and science, there is still a negative attitude of their abilities in technology education.

According to Zhang, Min Chia, and Chen (2022) and Wang and Degol (2017), females' learning experiences influenced their decision to pursue a technology education-related employment. Several researches have investigated gender variations in technology teachers'

perceptions of occupational and health safety procedures (Chan & Cheung, 2018; Christensen et al., 2014; Makarova et al., 2019; Riegler-Crumb & Peng, 2021). Gender differences, for example, have been identified among Nigerian technical college students (Chan & Cheung, 2018). Female students at technical institutions were less likely than male students to complete their degree and enter the labor force. Furthermore, among those who had completed technical courses, female students were less likely than male students to pursue technology courses in higher education and employment in technology-related fields. Christensen, Knezek and Tyler-Wood (2014) discovered that female students in the eleventh and twelfth grades in the United States were more likely than their male counterparts to seek careers in technology. The risks experienced at the place of employment and the strategies required for reducing them can differ depending on gender. This is due to differences in job nature, working conditions, societal expectations, and gender-based treatment. As a result, when putting in place occupational health and safety practices, gender differences must be considered.

Statement of the Problem

The majority of those employed in various schools, organization and industrial workshops in Nigeria today accept employment offers because they are desperate for a living and lack basic awareness of the organization's health and safety practices. The health of the global workforce and their exposure to job dangers vary greatly between and within countries. Common challenges to occupational health and safety practices are non-literacy, lack of the necessary facilities, poorly trained human resources in occupational health and safety, poor nourishment and hygiene, paucity of research, and a scarcity of interdisciplinary collaboration between the social sciences and medicine (Mostafa & Momen, 2014; Ahmed & Newson-Smith, 2010; Prabhakara, 2002; Pool & Geissler, 2007). The international recognition of workers' health and safety as a fundamental human right has resulted in the strengthening of all available measures, particularly in developing countries. These measures include medical, training, engineering, regulatory, and occupational monitoring.

One strategy for minimizing the number of young worker injuries is to enhance the availability and efficacy of safety training, initially at school and later in the workplace. If proper safety measures are not implemented, there will be an increase in occupational accidents. When technical and financial means are limited, managing health and safety at work, worker's health in the workplace, and the external environment in developing nations, such as Nigeria, can be difficult (Adeleye, 2022; Olabiyi, 2012). Workplace injuries and hazards are associated with employees' negative attitude of their psycho-social work environment (Adeleye, 2022; Olabiyi, 2012). Despite the fact that several studies on the need to improve workplace occupational health and safety have been carried out, there is still a high rate of hazards in the workplace. The reasons been that majority of these studies ignored the knowledge, attitude, and practice in workplace

health and safety practitioners in the school and industrial workshop. In most cases, this institution is where students gain firsthand understanding of occupational health and safety. As a result, the gap that this study fills is critical. Knowledge, attitudes and perception of teachers are the most important variables in technology education. Significantly, Landasan (2017) recommended that teachers' knowledge, attitude and practice (KAP) must be given appropriate measures to further enhance the perception of technology teachers towards occupational health and safety practices.

Purpose of the Study

1. To investigate gender differences in technology teachers' knowledge, attitude and practice toward occupational health and safety.
2. Is there a significant relationship between technology teachers' knowledge, attitude, and practice towards work-related health and safety?
3. What is the predictive influence of attitude and knowledge towards the explanation of variance in technology teachers' practices of occupational health and safety?

METHOD

The researcher employed the descriptive correlational survey methods of research, with the questionnaire as the primary tool for data gathering. The knowledge, attitudes, and practices (KAP) of technology teachers on occupational health and safety were determined and analyzed in this study. The study's participants were technical college teachers. Technology teachers were those who currently taught in Lagos State Technical Colleges provided accurate and trustworthy responses regarding the mission of the institution, the implementation of policy, and effective service delivery in the context of job-related health and safety practices. This study included 276 respondents, all of whom were teachers and technologist/craftsman. The total enumeration sampling technique was used in the research. The researcher used his judgment and a suitable strategy in selecting the subjects who comprised the sample and who best met the study's objectives. This sampling technique relied on the researcher's discretion to pick a sample that provided the required data. Individuals with special qualifications or who are considered representative based on previous evidence comprise the total enumeration sample. A survey questionnaire adapted from Mthetwa (2008) was used as the research instrument, and it is divided into two parts: the first part is a profile of the teachers, and the second part includes statements that find out the teachers' knowledge, attitudes, and practice regarding workplace occupational health and safety. The reliability coefficient of the instrument was 0.89 as computed using the Cronbach alpha. Independent samples t-test, Pearson moment correlation coefficient and multiple regression analysis were used to analyze the data collected.

RESULTS AND DISCUSSION

Research Question One: What are the gender differences in technology teachers' knowledge, attitude and practice toward occupational health and safety.

Table 1. Gender differences in technology teachers' knowledge, attitude and practice toward occupational health and safety.

Variable	Gender	N	Mean	SD	T	Df	Sig
Attitude	Male	161	57.90	4.00	-3.284	274	.001
	Female	115	56.06	4.97			
Knowledge	Male	161	62.37	3.71	-2.877	274	.004
	Female	115	60.89	4.53			
Practice	Male	161	55.73	5.19	.313	274	.754
	Female	115	55.53	5.42			

Table 1 displays a summary of the mean responses of respondents on the gender differences in technology teachers' knowledge, attitude, and practice toward occupational health and safety. Generally, the male respondents had more knowledge and practice and a positive attitude towards occupational health and safety. Based on the collected data, it showed that the male teachers were more inclined toward occupational health and safety than the female teachers. With regard to attitude, male teachers had a mean of 57.90 with a standard deviation of 4.00, while female respondents had a mean of 56.06 with a standard deviation of 4.97. Concerning knowledge, male respondents had a mean value of 62.37 with a standard deviation of 3.71, while female respondents had a mean of 60.89 and a standard deviation of 4.53. With regards to practice, male respondents had a mean value of 55.73, slightly higher than female respondents of 55.53.

Furthermore, as shown in Table 1, there was a significant influence of gender on technology teachers' attitude ($t=3.284$) and knowledge (2.877) of occupational health and safety. However, gender did not have significant influence on technology teachers' practice of occupational health and safety ($t=0.313$).

Research Question Two: Is there a significant relationship between technology teachers' knowledge, attitude, and practice towards occupational health and safety

Table 2. Significant relationship between technology teachers' knowledge, attitude, and practice towards occupational health and safety.

Variable	P	A	K
Practice (P)	1		
Attitude (A)	.174**	1	
Knowledge (K)	.481**	.917**	1
Mean	55.65	56.83	61.51
SD	5.28	4.68	4.27
N	276	276	276

Table 2 showed the connection between technology educators' understanding, perspectives, and actions around workplace safety and health. There was a significant association between knowledge, attitude, and practice regarding occupational health and safety, according to the Pearson correlation analysis (Table 2). Moreover, there were significant correlations for

occupational health and safety between knowledge and practice ($r = -0.481, p < 0.05$), attitude and practice ($r = 0.174, p < 0.05$), and knowledge and attitude ($r = 0.917, p < 0.05$). Relationships between attitude and knowledge were statistically significant. The knowledge, attitude, and practices of technology teachers on occupational health and safety were thus significantly correlated.

Research Question 3: What is the predictive influence of attitude and knowledge towards the explanation of variance in technology teachers' practices of occupational health and safety?

Table 3 showed the predictive influence of attitude and knowledge towards the explanation of variance in technology teachers' practices of occupational health and safety. The ANOVA regression analysis (Table 3) revealed a significant influence of knowledge and attitude on technology teachers' practice toward occupational health and safety ($F_{(2,273)} = 289.21, p = 0.000$). The two factors (knowledge and attitude) investigated contributed as much as 67.9% variance to practice towards occupational health and safety.

Table 3. Predictive influence of attitude and knowledge towards the explanation of variance in technology teachers' practices of occupational health and safety.

R = .824					
R ² = .679					
Adjs R ² = .677					
SEE = 3.001					
F = 289.21					
(2,273)					
P < 0.001					
Variable	Unstandardized B	coefficients Std. Error	Standardized coeff. Beta	T	Sig.
Constant	9.585	2.659		3.610	.000
Attitude	-1.896	.097	-1.679	-19.53	.000
Knowledge	2.500	-.106	2.02	23.51	.000

As seen in Table 2, knowledge had the highest beta (β) value (2.02), followed by attitude ($\beta = -1.679$). The regression analysis equation is as follows: occupational health and safety practices predicted = $9.585 - 1.896 \text{ attitude} + 2.500 \text{ knowledge}$. According to the equation, one unit increase in attitude results in a -1.896, decrease in occupational health and safety practice. A unit increase in knowledge of workplace health and safety procedures will result in a 2.500 rise in practice towards occupational health and safety.

The current study investigated gender differences in technology teachers' knowledge, attitude and practice toward occupational health and safety; relationship between technology teachers' knowledge, attitude, and practice towards occupational health and safety, and predictive influence of attitude and knowledge towards the explanation of variance in technology teachers' practices of occupational health and safety. Knowledge, attitude and practice (KAP) must be given appropriate measures to further enhance the awareness of technology teachers towards

occupational health and safety. The major objective of the present study was to comprehensively examine this association in workplace occupational health and safety milieu in Nigeria.

Gender is a crucial factor of occupational health and safety; an examination of records and scientific literature reveals a growing emphasis on a gender-focused strategy. The study results showed that male respondents had more knowledge and practice and a positive attitude towards occupational health and safety than female counterparts. Based on the collected data, it shows that the male teachers were more inclined toward occupational health and safety practice than the female teachers. Also, as shown in Table 1, among the independent variables (attitude, knowledge, and practice), the best predictor of occupational health and safety was attitudes ($t = -3.284$), followed by knowledge ($t = -2.877$) and practice ($t = .313$). among male and female. Knowledge is the most significant variable to predict workplace occupational health and safety of the respondents. The finding of the study agrees with the past results which emphasized on the declining proportion of women in employment raises a number of gender-related issues about how work-related risks affect men and women differently, that characterized gender differences across occupations and industries (Olabiya & Awofala, 2019; ILO, 2020).

These results are very important for exposure of workforce to risk factors and their impacts, as well as non-professional, socio-cultural aspects that separate male and female workers (Sorrentino, Vona, Monterosso, & Giammariolis, 2016; Murphy, 2017; ILO, 2020). Recognizing diversity in the workplace, including gender differences, ILO (2020) emphasized that it is essential to ensure the safety and health of both males and females' workforces. This supported the findings of previous studies that many workplace incidents in petrochemical companies had been reported through newspaper and media. Male employees are more likely to be involved in reported cases than female employees due to a lower female workforce (Chong & Low 2014; Mukhtar, Mat, & Lokman 2020). According to Olabiya and Awofala (2019), workplace safety is one of the most important issues that must be addressed because workplace accidents can have a wide range of serious consequences for the organisation. Furthermore, Olabiya and Awofala (2019) argue that significant progress should be made and that gender differences in occupational safety and health legislation and prevention initiatives should be acknowledged.

This strategy recognizes and highlights the disparities between men and women workers in order to detect occupational health and safety hazards and implement effective solutions. Gender is clearly a significant predictor of workplace safety performance in vocational programmes (Olabiya & Awofala, 2019). The study's findings agree with previous studies, which reiterated that gender differences in risk management, occupational safety, and health research should be properly addressed; similarly, all workers should have increased access to occupational health services and healthcare; and organisations should ensure that men and women employees, as well as their representatives, are included in occupational and safety health measures, health

promotion, and decision-making processes. The relationship between gender differences in occupational health and safety, self-perceived capabilities, and gender roles is discussed. In line with the present gender research, there may be fewer statistically significant gender differences in occupational health and safety practices in workplaces, schools, and industries. Both genders seem to have similar rich experiences and exposures, both inside and outside the workplace.

A gender-sensitive approach recognises that men and women may face different physical and psychological risks at work due to differences in their jobs, societal roles, and expectations and responsibilities (Olabiya & Awofala, 2019). Therefore, different control measures are required. This approach also advances understanding of how gender-specific occupational hazards and risks are influenced by biological differences, social roles, employment patterns, and the division of labour along sexual lines. This dimension must be considered to ensure that workplace health and safety regulations and prevention measures are effective for both men and women. Furthermore, such policies must be built on a more accurate understanding of the relationship between gender roles and health. The study results showed significant relationship amid knowledge, attitude and practice towards occupational health and safety. More so, knowledge and attitude were significant predictors of occupational safety and health practice among technology education educators in Lagos, Nigeria.

These results are very important for occupational health and safety practice because investigating attitudes and knowledge toward safety practice and their relationship is crucial for technology educators to develop instructional strategies that promote occupational health and safety in the workplace as positive attitude due to high knowledge could result into efficient occupational health and safety practice (Maciejewski & Merchant, 2016; Murphy, 2017). Furthermore, the study support findings of Mukhtar, Mat and Lokman (2020) on the knowledge, attitude, and practice of health and safety at work among employees in petrochemical companies, that employers should also underscore the practice of safety, who should supply workers with safety precautions and appropriate clothes (personal protection equipment) in the job. Mukhtar et al. (2020) added that a competent employer will ensure that the work environment is safe for employees to conduct their jobs and go about their everyday lives. The organization is also responsible for ensuring that the necessary safety equipment and procedures are in place at each work location. Effective procedures and corrective activities should be implemented in the future to prevent and reduce the occurrence of accidents.

Many employees spend the majority of their lives at work, so maintaining an appropriate working environment and a healthy mind and body are critical. (Tung & Yen, 2000; Xu, 2001). In the present study, attitude, knowledge, and practice toward occupational health and safety in the workplace are strong factors in the workforce. If technology education teachers have to participate in activities to promote their health, they must be aware of the risks at work. Most of

the workers in the technical education institutions need to understand the potential risk to health and safety and identify the precautions that need to be implemented to protect workers from risk and danger that may occur in working places. There was also a significant favorable relationship occupational health and safety between knowledge and attitude. Furthermore, in the current study, attitude was a strong positive predictor of occupational health and safety practice among teachers of technology. These findings agreed with those of Mukhtar et al. (2020), who found that the need of delivering occupational safety education in secondary school settings is widely recognized, emphasizing that workplace safety is one of the critical concerns that must be addressed.

Accidents in the workplace can have a wide range of significant consequences for the business. When an accident occurs, the employee should know where to report it so that the employer can take appropriate action. Improving the accessibility and efficacy of safety education, first in schools and then in the workplace, is one way to reduce the burden of young worker injuries. Safety and health awareness should be instilled in all employees to guarantee that their work is productive and efficient, hence preventing workplace accidents. Furthermore, research revealed that safety training can greatly improve workers' knowledge of occupational health and safety measures. This finding corresponds with recent research on the efficacy of safety training for teleworkers (Harrington and Walker, 2004) along with food service workers (Sinclair et al., 2003; Olabiyi, 2021). Since the nature of technical institutes and universities is focused on the workplace in the training of human resources, maintaining good health or paying attention to workplace safety should be a basic skill for each student (Olabiyi, 2012; Abdel, Qaraman, Edris, & Ahmed, 2022). As a result, this study discovered that workers' attitudes are highly influenced by their knowledge level. Occupational safety and health training should be provided to improve technology teachers' knowledge and attitude to better predict their practice towards it.

CONCLUSION

The study's objective was to determine occupational health and safety knowledge, attitudes, and practices among technology teachers in the school workshop. The exploratory study employed the descriptive correlational survey method of research. Gender (male and female) differences and similarities in knowledge, attitudes, and practices of occupational health and safety were investigated. The study found a significant relationship between knowledge, attitude, and practice regarding occupational health and safety. Attitude and knowledge were significant predictors of occupational safety and health practice. Therefore, the study recommended among others that Occupational safety and health training should be provided to improve technology teachers' knowledge and attitude to better predict their practice towards it, the practice of safety be stressed by the school administrators, who should supply staff and students with safety precautions and appropriate clothes (personal protection equipment) in the school workshop, effective procedures, corrective activities should be implemented in the school workshop to prevent and reduce the

occurrence of accidents and teachers' knowledge, attitude and practice (KAP) must be given appropriate measures to further enhance the perception of technology teachers towards occupational health and safety practices.

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