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ENHANCING SAFETY CULTURE: INVESTIGATING INTENTIONS, ATTITUDES, AND OCCUPATIONAL HEALTH PRACTICES AMONG TVET STAFF IN PUBLIC UNIVERSITIES

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Abstract
The study examined enhancing safety culture: investigating intentions, attitudes, and occupational health practices among TVET staff in public universities. To guide the study, two research questions and hypotheses were formulated and tested at 0.05 level of significance. The study adopted a correlational survey research design. The population of the study comprised of all 96 Technology and Vocational Education staff from universities in Anambra state. The entire population was used as sample, because of its manageable size. The instrument used for the collection of data was a structured questionnaire made up of 20 items divided into three clusters measuring the relevant dimensions of planned behaviour, occupational health and safety practices. The instruments were validated by two experts, in technology and vocational education. Data collected from the respondents were analyzed using Pearson Product Moment Correlation Co-efficient, linear regression and bias corrected (BC) bootstrapping regression estimate. The findings revealed among others a very high positive relationship between safety intentions and health, based on the findings, it can be concluded that safety intentions predict health and safety practices, It was recommended that mentorship programmes should be organized by administrators to enable staff learn from experienced colleagues and reinforce positive behaviours, establish well-defined occupational health and safety policies aligned with planned behavior, continuously evaluate the effectiveness of interventions and adjust strategies based on feedback and outcome.
Keywords: Attitude, occupational health practices, Safety Intentions,

Introduction

TVET is that part of the education system that provides courses and training programmes related to employment with a view to enable the transition from secondary education to work for young trainees / students (social objective) and supply the labour market with competent apprentices (economic objective). TVET is used as a comprehensive term referring to those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences, and the acquisition of awareness, knowledge, skills, and attitudes relating to occupations in various sectors of economic and social life.

Technical and vocational education training plays a vital role in preparing individuals for the workforce, addressing skills shortages, and contributing to economic development. Its goals encompass skill acquisition, employability, industry relevance, promoting lifelong learning, and ensuring inclusive education opportunities for all. By achieving these objectives, TVET helps individuals lead fulfilling careers while meeting the demands of a rapidly changing job market. (Bragg, 2017).

The staff in the department of Technical and Vocational Education and Training (TVET) in universities play crucial roles in ensuring the effectiveness and success of the programmes. Their responsibilities extend beyond traditional teaching roles, as they are involved in various aspects of student development and program management. The TVET staff in these universities consist of instructors or teachers, industry experts, programme coordinators, Career Advisors otherwise referred to as Counselors and the support staff who perform administrative duties. They are required to engage in continuous professional development, possess practical experience and pedagogical skills, passion

for teaching and student development, amongst others to perform their roles diligently (mcChesney & Aldridge 2018). These roles include delivering high-quality and practical instruction in specific vocational or technical subjects (teaching tasks), facilitating hands-on training and simulations to develop students' practical skills (practical tasks), assisting students in identifying suitable career paths based on their interests, strengths, and skills. Providing guidance on job opportunities, internships, and industry placements, supporting students in their career development and transition from education to employment, amongst others.

These roles are required and important as they ensure the smooth running of these departments and institutions. (Zirkle & Jeffrey, 2017). However, some of the tasks performed by vocational training staff can expose them to various risks and dangers in the workplace. Potential risks include Chemical hazards occurring when employees are exposed to solid, liquid, or gas chemicals. These include cleaning products, vapors, fumes, flammable materials, and pesticides. (Popove et al, 2016)

Ergonomic hazards occur when strain is put on the body from working, whether from working conditions or body positions. It's often difficult for employers to identify this occupational hazard type since body strain usually remains unnoticed until an injury occurs or becomes a long-term illness. (Boini, Colin, and Grzebyk, 2017). Physical hazards are anything within the environment that can cause harm to the body, even if it doesn't touch it. This occupational hazard type includes excessive exposure to sunlight or ultraviolet rays, extreme temperatures, radiation exposure, and excessive noise. (OSHA, 2018).

These hazards TVET staff are exposed as a result of long periods of standing and sitting, lifting heavy loads, high workload, and violence in the workplace amongst others. (Shafii et al, 2019). Evidence suggests that injuries are common among educators, particularly musculoskeletal disorders. Globally, between 39% and 95% of teachers reported musculoskeletal disorders and two-thirds of secondary school teachers experienced disabling pain. Low-back, neck, and upper-limb pain are the most commonly reported musculoskeletal disorders, which have been attributed to workplace demands like prolonged overhead writing, sitting, and standing. (Shafii et al, 2019) Toxic exposure to dangerous chemicals which is common among TVET staff during practical also encourages chemical hazards. (Popove, Lyon and Hollcroft, 2016).

Non adherence to safety precautions in the workplace Is quite dangerous and can lead to lots of disasters which include; one's death and that of colleagues (Shafii et al, 2019). Company disqualification from the industry, often leaving companies' reputations in ruin. As it's the employer's legal responsibility to protect their employees, it's often those at the top that are targeted. (International Labour Organization, 2022). Health damage which could last one's lifetime (Hui and Chan 2019). issuance of financial penalties. Issues that endanger human lives can produce unlimited fines or imprisonment if an employee is injured at a workplace where best practice wasn't implemented. (Wang et al, 2020).

Occupational Health and Safety (OHS) is a critical aspect of any workplace, including technical and vocational education training institutions. It focuses on the well-being of employees, students, and visitors by identifying, preventing, and mitigating workplace hazards and risks. Promoting a safe and healthy environment is essential in these institutions to ensure that staff members can carry out their duties effectively and efficiently while also protecting the welfare of students. Key aspects of occupational health and safety practices include conducting regular assessments, inspecting facilities, reviewing processes to pinpoint potential dangers, regular inspections and safety audits, the proper training and education of both staff and students on safety protocols, emergency procedures, the proper use of equipment and machinery and many more. Enhancing occupational health and safety in technical and vocational education training institutions requires a multi-faceted approach involving leadership commitment, staff engagement, robust safety practices, and a culture of safety. By prioritizing the well-being of staff, students, and visitors, these institutions can create a safer and more conducive learning environment for everyone involved (Brown, Johnson and Williams, 2020).

Planned Behavior posits that behavioral intentions are influenced by attitudes, subjective norms, and perceived behavioral control. Attitude towards behavior is someone's opinion on the behavior. Subjective norms and social norms are the opinions and standards of others. Perceived power and perceived behavioral control include if someone believes they can create behavioral action and why.

All of these variables accumulate to create someone's behavioral intention, which is the likelihood that someone will conduct or stop conducting a behavior. (Ajzen, 2002).

In the context of occupational health and safety, this theory suggests that if TVET staff have a positive attitude towards safety, perceive social norms that support safety compliance, and feel they have control over their safety practices, they are more likely to engage in safe behaviors. The study of social cognitive as predictors of occupational health and safety practices among Technical and Vocational Education and Training (TVET) staff at the Universities involves examining the psychological factors and planned intentions that influence the staff's behavior regarding occupational health and safety practices in their workplace. The aim of this study is to explore the relationship between social cognitive factors, planned behavioral intentions and the actual occupational health and safety practices exhibited by TVET staff at the universities in Anambra State. By understanding the psychological factors that influence these practices, the study seeks to identify potential areas for intervention and improvement in promoting a safer and healthier work environment for the staff. This, in turn, could lead to increased awareness and adherence to safety protocols, reduced workplace accidents, and improved overall employee well-being within the TVET departments in these universities

Most of the safety research was done in other occupations where safety and procedures are handled at optimum, while little or no safety research has been done in the field of technology and vocational education. In this study, the work of safety and health practices are used as an antecedent of planned behaviour, social cognitive to predict TVET safety behaviour in the workplace. Therefore, this study investigated safety and health practices of TVET by applying planned behaviour.

Research Questions

The following research questions guided the study:

1. What is the relationship between safety intentions and occupational health and safety practices among TVET staff in public universities in Anambra state?
2. What is the relationship between safety attitudes and occupational health and safety practices among TVET staff in public universities in Anambra state?

Research Hypotheses

The following hypothesis were tested at 0.05 level of significance.

1. Safety intentions do not significantly predict health and safety practices.
2. Safety attitudes do not significantly predict occupational health and safety practices.

Methodology

The study adopted a correlational research design. A correlational research design investigates the relationship between two or more variables. correlation research design is used to relate two or more variables to ascertain if they influence each other. It is therefore adequate for the present study as it seeks to examine the relationship between safety intentions, attitude to occupational health and safety practices. Some researchers have successfully adopted the correlational survey research design to determine relationships among variables. Correlation survey research design is suitable for this study. In this study, the dependent variable is occupational health and safety practices while the independent variables are safety intentions and attitude. The study was carried out in Anambra State. The population for the study consists of a total of 96 technology and vocational education Staff in Universities in Anambra state. The entire population was studied because the size is manageable. The instrument used for data collection was a structured questionnaire developed by the researcher. The distribution of the questionnaire was done by the researcher. The IBM statistical package for social sciences (SPSS) version 23.0 and PROCESS macro plugging for SPSS version 3.4.1 by Hayes (2018) were used as the statistical packages for data analysis. The statistical tools employed to perform the data analysis were inferential statistics such as Pearson Product Moment Correlation Co-efficient

(PPMCC), simple linear regression and Bias Corrected (BC) bootstrapping technique. PPMCC statistics were performed to answer research questions. Simple linear regression statistics will be performed to test the hypotheses 5 on relationship and prediction. The decision criteria for the use of PPMCC were based on the range of coefficient value (r) as recommended by Uzoagulu (2011) in the following order coefficients r-value between ± .8 and 1.0 means very high correlation; ±.6 and ± .8 means high correlation; .4 and .6 means moderate correlation; ±.2 and ±.4 means low correlation; ±.0 and ±.2 means very low correlation; ± 1.0 means perfect correlation; and coefficient r-value of 0 means no correlation. Note that when a coefficient r-value is a negative; it is a negative correlation which means also that as one variable increases the other decreases. When a coefficient r-value is a positive correlation; it means that as one variable increases the other increases

Results

Research Question One: What is the relationship between safety intentions and occupational health and safety practices among TVET staff in public universities in Anambra state?

Table1: Pearson correlation coefficient between safety intentions and occupational health and safety practices

Source of variation	**N**	**SI**	**OHSP**	**Remark**
Safety intentions	96	1.00	.958	Very High Relationship
occupational Health and safety practices	96	.958	1.00	

As shown on Table 1, the pearson co-efficient, r=0.958. This is an indication that a very high correlation exists between safety intentions and occupational health and safety practices. This implies that if safety intention increases health and safety practices will increase.

Research Hypothesis 1: Safety intentions do not significantly predict occupational health and safety practices among TVET staff in public universities in Anambra state

Table 2: Coefficients of Simple Linear Regression for Safety intentions predicting occupational health and safety practices

	Unstandardized Coefficients		Standardized Coefficients			
	B	SEB	Beta(*β)*	T	P	Decision
Constant	-1.198	.152		-7.891	.000	Significant
Safety Intentions	1.195	.037	.958	32.541	.000	

R^2= .918, Adjusted R^2=...918, F (.1058.887)

Data presented in table 2 shows the estimates of coefficient of relationship between safety intentions significantly predict occupational health and safety practices among technology and vocational education Staff. The table shows the significant coefficient (F= .918, β=.958, t= 32.541. $p<0.05$) which is also a confirmation of the result obtained. The corresponding adjusted r- square (.918) shows that 91.8 percent of the variations in occupational health and safety practices is determined by safety intentions. In all, occupational health and safety practices is not found to significantly predict occupational health and safety practices among technology and vocational education Staff. Hence hypothesis 1 is rejected for the study.

Research Question Two: What is the relationship between safety attitudes and occupational health and safety practices among TVET staff in public universities in Anambra state?

Table 3: Pearson correlation coefficient between safety attitude and occupational health and safety practices

Source of variation	N	SI	OHSP	Remark
Safety intentions	96	1.00	.954	Very High Relationship
occupational Health and safety practices	96	.954	1.00	

As shown on Table 1, the pearson co-efficient, r=0.954. This is an indication that a very high correlation exist between safety intentions and occupational health and safety practices. This implies that if safety attitude increases health and safety practices will increase.

Research Hypothesis 2: Safety attitude do not significantly predict occupational health and safety practices among TVET staff in public universities in Anambra state

Table 4: Coefficients of Simple Linear Regression for Safety intentions predicting occupational health and safety practices

	Unstandardized Coefficients		Standardized Coefficients			
	B	SEB	Beta(*β*)	T	P	Decision
Constant	-4.131	.253		-16.321	.000	Significant
Safety Attitude	1.771	.057	.954	30.989	.000	

R^2= .91, Adjusted R^2=.91, F (960.297)

Data presented in table 2 shows the estimates of coefficient of relationship between safety attitudes significantly predict occupational health and safety practices among technology and vocational education Staff. The table shows the significant coefficient (F=.960.297, β=.954, t= 30.989, p<0.05) which is also a confirmation of the result obtained. The corresponding adjusted r- square (.91) shows that 91 percent of the variations in occupational health and Safety attitude is determined by safety intentions. In all, Safety attitudes is found to significantly predict occupational health and Safety attitude among technology and vocational education Staff. Hence hypothesis 2 is rejected for the study.

Discussion

Safety intentions and occupational health and safety practices

The study revealed that there is a very high relationship between safety intentions and health and safety practices among TVET staff in public universities in Anambra state. Furthermore, the findings show that there is a significant correlation between safety intentions and health and safety practices among TVET staff in public universities in Anambra state. The 1st null hypothesis was rejected. This means that the correlation between safety intentions and health and safety practices is not only very high but as well in significant proportion. The findings of this study supported by the findings of by Smith (2018) which conducted a comprehensive investigation into the correlation between safety intentions and health and safety practices in the manufacturing sector. Their findings highlighted a strong positive relationship, emphasizing that employees with higher safety intentions consistently exhibited more stringent adherence to safety protocols and practices. The findings of the present study are in agreement with Johnson and Brown (2020) who explored safety intentions and practices within the construction industry. Their study revealed a bidirectional influence, indicating that improved health

and safety practices positively influenced safety intentions, and vice versa. The findings suggest a dynamic interplay between individual attitudes and on-the-job safety behaviors.

Safety attitudes and occupational health and safety practices

The study revealed that there is a very high relationship between safety attitudes and intentions towards health and safety practices among TVET staff in public universities in Anambra state. Furthermore, the findings show that there is a significant correlation between safety attitudes and health and safety practices among TVET staff in public universities in Anambra state. The 2nd null hypothesis was rejected. This means that the correlation between safety attitudes and health and safety practices is not only very high but as well in significant proportion. The findings agree with the findings of Smith (2018), they found a significant positive correlation between employees' safety attitudes and their intentions to engage in health and safety practices. The research suggests that individuals with positive safety attitudes are more likely to actively participate in safety measures, emphasizing the importance of fostering a positive safety culture within organizations. The findings of Chen (2019) are in agreement with the present study, Chen and his team conducted a longitudinal study tracking employees' safety attitudes and corresponding changes in their intentions towards health and safety practices over a three-year period. The research highlighted the dynamic nature of these relationships, indicating that ongoing efforts to enhance safety attitudes could positively impact long-term intentions and adherence to safety protocols.

Conclusion

In conclusion, this study examined the occupational health and safety practices of TVET staff using social cognitive as Predictors in Universities in Anambra State. Through comprehensive data analysis, it was concluded that there is a significant correlation between social cognitive and occupational health and safety practices. The study also highlights the significant of health and safety practices. These practices are relevant and will enhance workplace safety. Based on the results of the findings and the test hypothesis, it is pertinent to conclude that tvet staff in Universities in Anambra State agrees that health and safety practices enhances and give positive effect to the workplace.

Recommendations

Based on the findings of the study, the researcher makes the following recommendations:

1. Administrators should foster a supportive workplace culture, create an environment that encourages positive social norms and attitudes towards occupational health and safety.
2. The management should provide role models and mentors, showcase individuals who exemplify strong occupational health and safety practices within the TVET community. Mentorship programs can help staff learn from experienced colleagues and reinforce positive behaviors.
3. University authorities develop clear guidelines and policies, establish well-defined occupational health and safety policies aligned with planned behavior theory. Clearly communicate expectations, consequences, and the benefits of compliance to encourage staff adherence

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