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Assessment of Factors Influencing Work Place-Related Health Problems Among Small and Medium Enterprises in Niger State, Nigeria

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Abstract

The study is about the aassessment of factors influencing workplace-related health problems among small and medium enterprises in Niger State, Nigeria. To laid the foundation for the study, two research objectives were set for the study. These are; to ascertain the extent to which nature and type of job influence the workplace related-health problems, to assess the influence of intervention support strategies towards workplace related-health problems among workers. The cross-sectional design was adopted with the use of a questionnaire as the main instrument for data collection from a sample size of 240. Out of the sample size, only 222 questionnaires were returned for analysis. The data collected was analyzed using both descriptive and inferential statistics. The result was statistically interpreted. The study revealed that the nature of and type of job has a positive relationship with workplace-related health problems, there is little or no Health Intervention Support among respondents in small and medium enterprises in Niger State. The study recommends among others that labour law is expanded to include occupational health scheme (OHS) regulations in small and medium enterprises, to raise awareness between the enterprise and the responsible control authority or suppliers on health-protective and intervention strategies.

Keywords: Work Place-related, Health Problems, Small and Medium Enterprises, Niger State, Nigeria

Introduction

It is no gainsaying that the active people spend on an average about one-third of their time at the workplace (Asikhia, 2013, Shimaa & Fayza, 2018). Employment and working conditions have powerful effects on the health condition of workers (Ewuzie & Ugoami, 2016. Many scholars agreed that good working conditions can provide social protection and status, personal development opportunities, and protection from physical and psychosocial hazards (Elenwo, 2018, Bach, et al., 2019). It can also improve social relations and self-esteem of employees and lead to positive health effects. Working in the industry is fraught with occupational risks and hazards as well as health problems which are categorized into occupational, environmental, and public health (Hamid, 2018). The hazard of health problems face in the industrial setting is defined as the presence of a material or condition that has the potential for causing loss or harm. Bello and Mijinyawa (2013) defined work-related health problems as the risk to the health of workers usually

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arising out of employment. Determinants in the workplace, which could lead to health risks such as accidents, injuries, musculoskeletal diseases, deafness, circulatory disease, constant irritation, headache, respiratory diseases, and lack of coordination due to stress,(WHO, 2017, Gaafar, et al., 2016).

Globally, there are over 2.9 billion workers who are exposed to hazardous risks at their workplaces (Asikhia, 2019). Kalejaiye (2013)reported that there has been an annual mortality rate of 1,249 per 100,000 workers in Nigeria in the past decade. Varieties of hazards exist, almost as numerous as the different types of work, including chemicals, biological agents, and adverse ergonomic conditions. Annually there are two million deaths, attributable to occupational diseases and injuries and 4% of Gross Domestic Product (GDP) is lost due to occupational diseases and injuries. Work-related injuries present a major public health problem resulting in serious social and economic consequences that could be prevented if appropriate measures are taken (Iden, 2016,). Annually, across the world, an estimated 271 million people suffer work-related injuries and 2 million die from their injuries. The estimated economic loss caused by work-related injuries and disease is equivalent to 4 % of the world's gross national product (Elenwo, 2018). The impact is 10 to 20 times higher in developing counties including Nigeria, where the greatest concentration of the world's workforce is located (Oluwafemi, et al., 2018, Teklit, 2016).

It has been observed that Work-related injuries are injuries and illnesses resulting from events or exposures occurring in the workplace. It contributes significantly to the global burden of disease and disability, and mortality among the working-age group. The occurrence of injury and frequency of occurrence are determined by several factors. These include the degree of exposure of workers to occupational hazards, inexperience, overconfidence, lack or underutilization of protective devices, poor work/equipment interaction, and suitability of instruments to physical and physiological characteristics of workers, psycho-social and environmental factors (Nilima &Maya 2015, Eziki, 2019).

Most Nigerian employers pay lip service to safety management as a subject and too few are willing to act towards solving these problems. Even though every employer is duty-bound to protect employees and keep them informed about health and safety practices. However, the prevailing safety of management practices have been identified to be debilitating, and how these affect employees is of considerable priority to scholars (WHO, 2017). These conditions negatively impact the physical and psychological wellbeing of the industrial workers (Agu, et al., 2016, WHO, 2017). Empirical study linking industrial safety to wellbeing status in Niger state is scarce. Also, studies localized to the study of industrial hubs in the Nigerian hinterland are limited. Despite the voluminous studies elsewhere on this topic, there is a shortage of literature on the health problem among factory and industrial workers in the area under investigation. It is against this background that this study set to assess the health problems among factory and industrial workers in Niger state, Nigeria for proper documentation.

Purpose of the Study

The main purpose of this research is to assess the factors influencing workplace-related health problems among workers in small and medium enterprises in Niger State, Nigeria. Specifically the study:

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1. Ascertain the extent to which nature and type of job influence the workplace related-health problems among workers in Niger State.
2. Assess the influence of intervention support strategies towards workplace related-health problems among workers in Niger State.

Research Questions

1.What is the relationship between nature and type of job and workplace-related health problems among workers in Niger State?

2.What is the association between intervention support strategies and workplace-related health problems among workers in Niger State?

Research Hypothesis

The study was guided by the following objectives

1. There is no significant relationship between the nature and type of job and work-related health problems workers in Niger State, Nigeria.

Methodology

This study employed a cross-sectional survey design. Thus, the cross-sectional survey method is appropriate for obtaining opinions of people in a large population setting and allows for standardized and qualitative data (O' Leary, 2005, Gabriel, 2004). Sample size determination was done using the formula.

$$n=\frac{z2\ pq}{d2}$$

where

n = The desired minimum sample size
z = The standard normal deviate at 95% significant level
p = Proportion of workers with occupational health hazards problems.
q = 1 – p
d = Degree of accuracy at 0.0548

The whole population was studied, however, for a sample size of less than 10,000 as in this case 240.

The instrument for the research is a structured questionnaire. The instrument will be divided into sections A-E. Section A dwells on the socio-economic characteristics of the respondents, such as gender, age brackets, marital status, highest educational qualification, working experiences. Sections B measures the nature and type of job respondents do, (13 items). Section C assesses the causes of health-related problems consisting of (7 items). Section D is on the level of occupation risk made up of (9 items). Section E measures health intervention support consisting of (12 items), while section F, be the dependent variable is the Work-place Related Health problems consisting of (12 items). Each item was structured using a 5 point Likert scale of strongly agree (5), agree (4), undecided (3), disagree (2), and strongly disagree (1).

According to Sarnatos (2005) that data analysis is the statistical analysis of data collected in research to establish whether the generated research questions have been answered or hypotheses have been supported or not supported. The data gathered were properly coded and identified.

The data gathered are properly cleaned and examined for errors to enhance data entry, missing values and ensure no violation of statistical assumptions such as normality, linearity, etc.

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See Table Y for details. The categorical data will be analyzed using descriptive statistics while the null hypothesis will be tested using the parametric test as indicated in Table 2. the analysis was facilitated with the help of computer software named SPSS version 23.

Results

Demographic data

This study sought to establish the demographic data of the respondents. The results begun by a general analysis of the demographic profile of the respondents which composed of: gender, age bracket, marital status, highest educational qualification, working experiences.

Gender of the Respondents

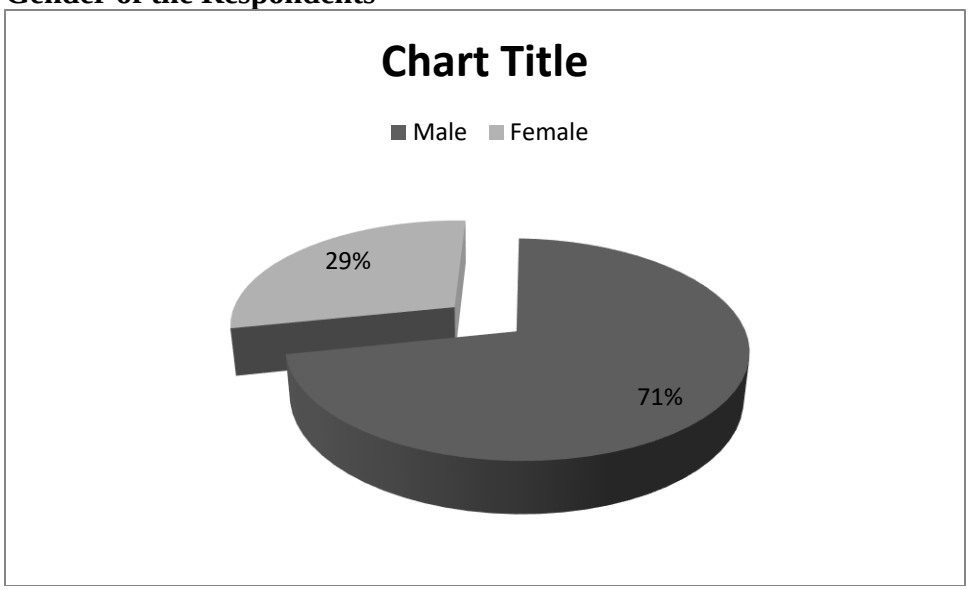

Figure 1: Gender of the Respondents

The data contained in Figure 1 shows the distribution of the research respondents, It reveals that 158(71%) of the respondents are males while 64(29%) are females. The conclusion is that majority of respondents in this research are males.

Age Bracket of the respondents

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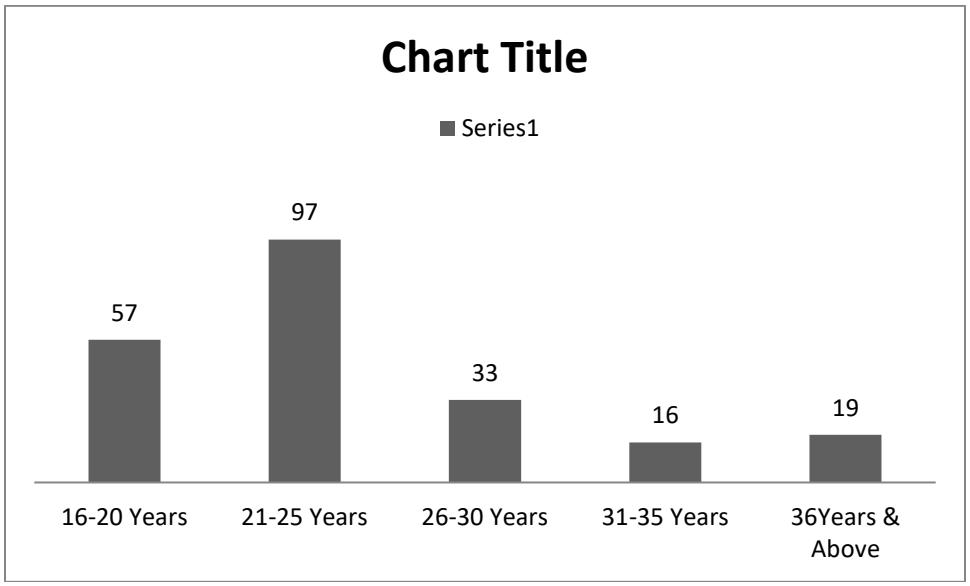

Figure 2: age brackets of the respondents.

Figure 2 displays the distributions of the respondents based on age groups. It shows that 57(26%) of the respondents belong to 16-20 years bracket, 97(43%) are between 21-25 years, 33(15%) are between 26-30 years, 16(7%) are between 31-35 years while 19(9%) are from 36 years and above. Majority of the respondents are between 21-26 years age bracket.

Respondents Marital Status

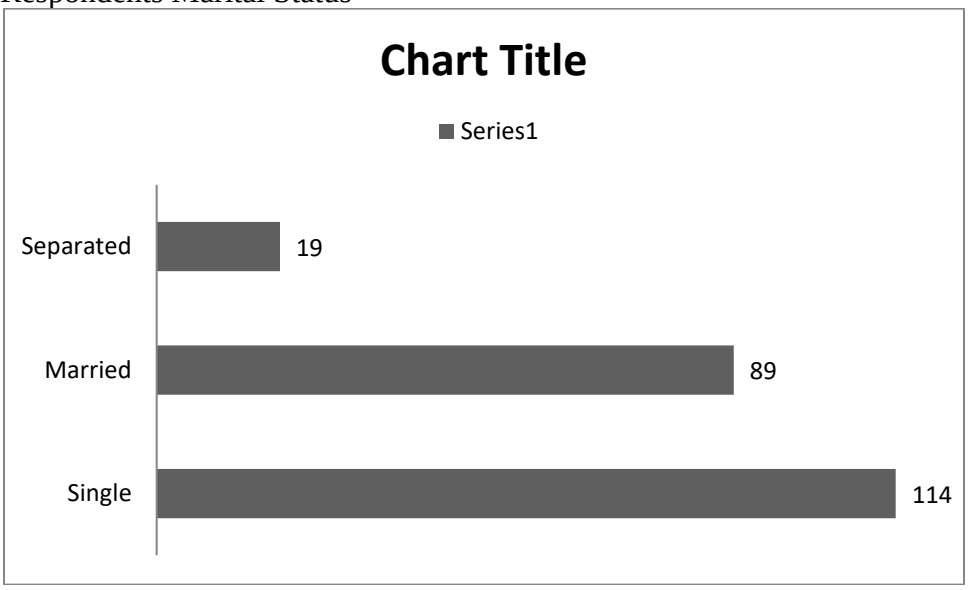

Figure 3: Respondents Martial status distribution

This data contained information on the marital status of the respondents. It shows that 114(51%) of the respondents are single, 89(40%) are married while 19(9%) are separated. The conclusion is that majority of the respondents in this research are single.

Respondents Educational Qualifications

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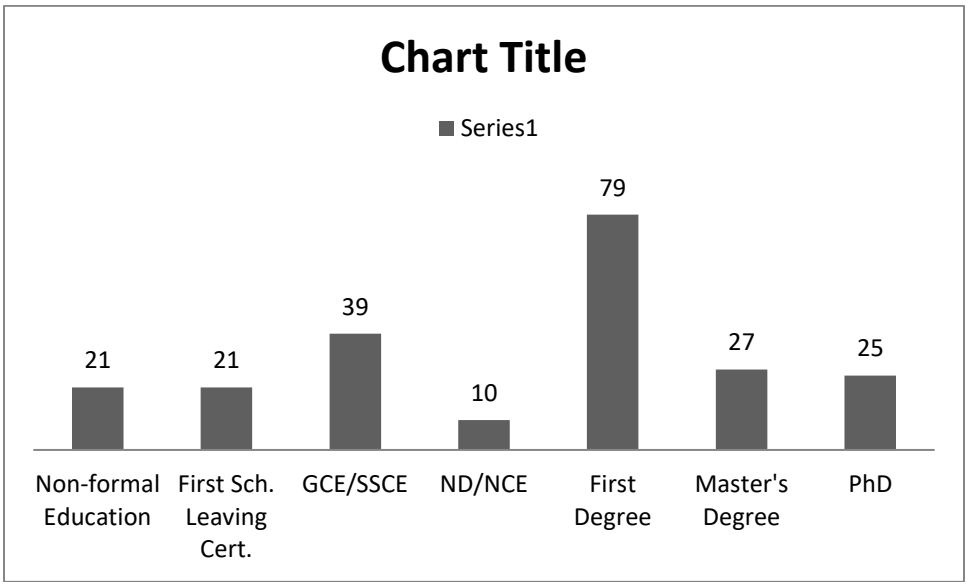

Figure 4: Distribution based on Educational Qualifications

Figure 4 shows the respondents distributions based on educational qualifications. Twenty-one respondents (10%) had no formal education, 21(10%) had First School Leaving Certificate, 39(17%) obtained either GCE or SSCE, 10 (5%) bagged National Diploma/National Certificate in Education, 79 (35%) had First degree certificates, 27(12%) had Master degree qualifications while 25(11%) bagged PhD qualification. It could be seen clearly that majority of the respondents had first degree in this study.

Respondents Working Experiences

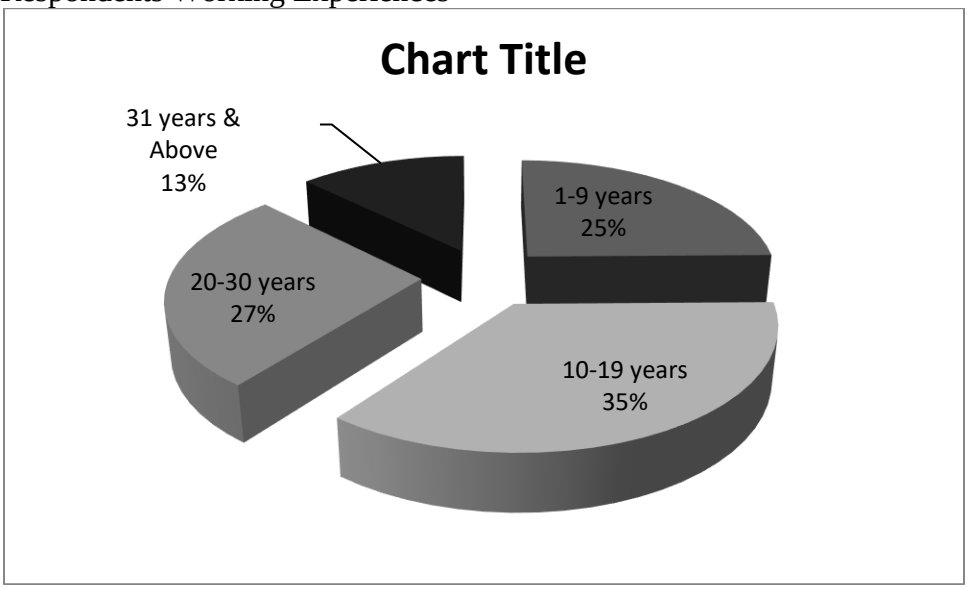

Figure 5: Respondents Years of Working Experiences

Figure 5 shows the distribution of the respondents working experiences in Small and Medium enterprises. It indicates that 55(25%) of the respondents had put in between 1-9 years

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working experiences, 79(36%) had put in between 10-19 years of working experiences, 60(27%) had put in between 20-30 years while 28(13%) had put in 31 years and above as working experiences. Majority of the respondents had put between 10-19 years working in various small and medium enterprises in the study area.

Table 1: Responses of the respondents on Nature and type of Job

NO	Items	M	SD	Remark
1	Pushing	3.96	1.34	Agreed
2	Carrying of goods	3.55	1.28	Agreed
3	Standing for long time	3.74	1.25	Agreed
4	Bending and slopping or iron	3.58	1.28	Agreed
5	Building and construction	3.73	1.23	Agreed
6	Administrative work	3.55	1.25	Agreed
7	Electrical work	3.60	1.42	Agreed
8	Sitting for long time	3.47	1.30	Agreed
9	Prolong awkward position	3.73	1.26	Agreed
10	Prolong lifting of load	3.73	1.35	Agreed
11	Prolong bending	3.67	1.29	Agreed
12	Prolong twisting of the body	3.77	1.28	Agreed
13	Prolong standing	3.61	1.33	Agreed
	Grand Mean	**3.67**	**1.29**	Agreed

Table 4.3 shows the responses to the nature and type of job performed by respondents in Small and Medium enterprises in Niger State. It is found that the grand mean of3.67 and SD of 1.29 is greater that the cut-off point of 3, implying that the respondents generally agreed with the nature and type of job they do. Item-by-item analysis indicates that item No 1 (pushing) tends to have the highest mean score (M=3.96, SD=1.39) while item No 8 (sitting for long time) had the lowest mean score (M = 3.47, SD = 1.30) among the respondents.

Health Intervention Support

Table 2: Responses of the respondents on Health Intervention Support

NO	Items	M	SD	Remark
33	There is provision of protective equipment for workers	2.89	1.52	**Disagreed**
34	There is conducive working environment for workers	2.55	1.40	**Disagreed**
35	There is health support programme for workers	2.32	1.33	**Disagreed**
36	In my working place, workers are made to do medical examination	2.04	1.18	**Disagreed**
37	There is provision for medical care for workers	2.00	1.23	**Disagreed**
38	Workers are provided health education	2.26	1.35	**Disagreed**
39	The medical care for workers is free	2.11	1.24	**Disagreed**
40	My working environment is being monitored	2.13	1.28	**Disagreed**
41	I use hand gloves while working	2.32	1.36	**Disagreed**
42	I wear protective cap (helmet) when working	2.13	1.25	**Disagreed**
43	I often pout face and nose mask when working	2.46	1.41	**Disagreed**
	Grand Mean	2.29	1.32	**Disagreed**

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Analyzed research data contained in Table 4.6 shows that the grand mean of 2.29 and SD of 1.32 is lower/smaller than the specified cut-off-point of 3, indicating the respondents have disagreed on the Health Intervention Support among respondents in Small and Medium enterprises in Niger State. Item by item analysis reveals item No 33 had the highest mean (M=2.89, SD=1.52), which states that there is provision of protective equipment for workers while item No 37 with the lowest mean score of 2.00 (SD=1.23) which states that there is provision for medical care for workers as it relates to the health intervention support.

Table 3: Pearson Correlation analysis of the relationship between the nature and type of job and workplace-related health problems.

Variable	N	Mean	SD	R	P	Remark
Nature and type of job	222	47.69	9.16	.410**	<.001	S
Workplace-related health problems	222	52.36	10.06			

**Correlation is significant at the .01 level (2-tailed)

In testing this hypothesis, the Pearson Product Moment Correlation Coefficient technique was utilized in determining the relationship between the nature and type of job and workplace-related health problems among workers in Small and Medium enterprises in Niger State Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity. Cohen's (1988) in Boset, et al., (2017) classification of correlation strength has been used in the present study. Cohen (1988) suggested that a correlation is considered small/weak when r= .10 to .29, medium/moderate when r= .30 to .49 and large/strong when r=.50 to 1.00. The results in Table 4.9 reveals a strong and positive correlation between the two variables, $r(220) = .64$, $p < .001$, leading to the non-support of the hypothesis. It is then implies that there is a significant association between the natures and types of job and workplace-related health problems .In other words, the nature of and type of job has a positive relationship with workplace related health problems.

Table 4: Pearson Correlation analysis of the relationship between intervention support strategies and workplace-related health problems

Variable	**N**	**Mean**	**SD**	**R**	**P**	**Remark**
Intervention support strategies	222	25.41	7.79	-.162**	<.001	S
Workplace-related health problems	222	52.36	10.06			

**Correlation is significant at the .01 level (2-tailed)

In testing the five hypotheses, the Pearson Product Moment Correlation Coefficient technique was utilized in determining the relationship between the intervention support strategies and workplace-related health problems among workers in Small and Medium enterprises in Niger State. The results in Table 4.12 reveals a weak and negative correlation between the two variables, $r(220) = -.162$, $p < .001$, leading to the non-support of the hypothesis. It is then implies that there is an indirect or negative significant association between the intervention support strategies and

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workplace-related health problems .In other words, the lower is the intervention support strategies a worker receives, the higher will be the probability of workplace related health problems and vice versa.

Discussion of findings

The first finding of the study shows that there is a significant association between the natures and types of job and workplace-related health problems. In other words, the nature of and type of job has a positive relationship with workplace-related health problems. This finding corresponds with the findings of Salamatu & Ibrahim, (2015) who found that workers in factories and industries face many hazards in their work environment, and these hazards have the potential to cause injury or illness. The finding of the study also aligned with Owosile and Omoshaba (2014) also observed that there are many different risks that factory workers face on the job. The Occupational Safety & Health Administration (OSHA, 2014) has identified the top causes of injuries in the factory and industrial sites, which include, Falling from heights, Trench collapse, Collapsed scaffolding among others. The finding of the study is also in line with Asikhia (2013) who revealed that workers are exposed to various hazards in their workplaces such as radiation, noise, vibration heat stress, cold stress among others.

The second finding of the study revealed that there is little or no Health Intervention Support among respondents in Small and Medium enterprises in Niger State. This statistically implies that there is an indirect or negative significant association between the intervention support strategies and workplace-related health problems. In other words, the lower is the intervention support strategies a worker receives, the higher will be the probability of workplace-related health problems and vice versa. The finding disagrees with that of Similarly, Tolin, et al., (2019) who examined the implementation of safety hazards and risk control measures in the CHI. Results showed that 87% of the respondents agreed that they have received in-service training on safety hazards and risk in the last two years; 93% confirmed attending conferences, workshops, and seminars; 84% agreed that management provides workers with operating safety manuals; 78% consented that supervisors usually conduct safety hazards and risk briefing with workers each day before the start of work; 89% agreed that management carries out yearly in-house safety training for workers; 86% concurred that management sponsors staff for external training programmes on safety hazards and risk; 94% confirmed that management provides Personal Protective Equipment (PPE) for workers; while 99% confirmed that they make use of PPE issued to them.

Conclusion

It can be deduced from the study that the workers in the small and medium enterprises are exposed to work that requires high concentration such as cutting, stitching, and finishing which causes headache and visual discomfort. The workers also receive low income to survive and spend a majority of their time in the factory. They find it difficult to buy the required calories and to cook food. For this reason, they choose to take unhygienic foods which cause various types of health problems like food poisoning, diarrhea, gastric pain, malnutrition, abdominal pain, etc. A study found that workers suffer from some health problems like malnutrition, less appetite, diarrhea, hepatitis (jaundice), food poisoning, and so on, which are related to the food they usually take.

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Studies have reported that men perform many roles and often end with stress, which results in psychological related problems. The medical facilities available in factories are not sufficient.

However, the importance of occupational health and safety practices is often overlooked. This is because the level of health and safety in Africa is low compared with the rest of the world. In Sub-Saharan Africa, public health problems of child mortality, malaria, water quality, and HIV/AIDS have overshadowed occupational health problems. According to available literature reviewed in this study, risk factors leading to injuries are present in every factory and among all occupations with industrial and agricultural workers having the highest risks. Governments and owners of enterprises in developing countries have apathy to occupational health and safety issues, and all the stakeholders, ranging from the management, workers, and government do not appreciate the problems that can be solved or mitigated through occupational safety and health.

Recommendations

Based on the findings of the study, the following recommendations are made:

1. labor law is expanded to include occupational health scheme (OHS) regulations in small and medium enterprises.
2. Workers should be properly trained and educated on the use of work-related equipment to avoid health-related accidents.
3. Public health preventative services such as the provision of flu vaccines, and protective equipment may be one way of supporting workers in small and medium enterprises with acute seasonal episodes of health problems
4. There should be the enactment of the law to ensure the small and medium enterprises put in place the intervention strategies of addressing the health problems of workers.

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