Occupational Health Problems of Industrial Workers in Nsukka L.G.A. of Enugu State

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Abstract

This study was embarked on to find out the occupational health problems of industrial workers in Nsukka L.G.A. The cross-sectional survey research design was adopted and four research questions and one hypothesis guided the study. The population consisted of 1040 people working in the industries. The multi-stage sampling procedure was used to select a sample of one hundred and seventy two senior and junior industrial workers that were used for the study. The instrument for data collection was a questionnaire which was validated by three experts in research work and the reliability was also determined. The data was analyzed using frequencies and percentages and the hypothesis was verified using chi-square (X^2) statistic. The following major findings emerged: Industrial workers in Nsukka experienced a lot of health problems. These health problems cut across the three dimensions of health which are physical, social and emotional. The study showed that the commonest health problems were injuries, poor wages and lack of incentives and self-destruction behaviours such as drinking, smoking, among others.

It was then recommended that employers and employees should adhere strictly to the ILO safety *rules and work conditions in order to enhance their health status and also increase their productivity.*

Introduction

The setting up of industries and engaging in various occupational activities are attempts to solve social and economic problems of human beings. The complex nature of modern industrial techniques predisposes industrial workers to many chemical and physical hazards which are capable of causing accidents and other occupational health problems. This means that industries that were set up to solve some problems have become sources of health hazards. Workers in various factories and industries are faced with several difficulties and dangers; many workers have been reported dead on active service in many working sites. Esserberg (1998) expressed that each year about 180,000 workers meet their death and 100million others are injured in occupational accidents. According to Adeniyi (2001), occupational activities have been creating ecological and environmental problems that have adverse effect on health, safety and wellbeing of people in workplaces and the society in general.

World Health Organization (2002) reported that occupational health risks is the tenth leading cause of morbidity, which accounts for a number of morbid conditions globally. These morbid conditions as estimated by the WHO include; back pain 37%, hearing loss 16%, chronic lung diseases 13%, asthma 11%, injuries 10%, cancer 9% and leukemia 2%. Generally, the state of occupational safety and health in developing countries is much poorer than in industrialized countries. The prime responsibility for occupation safety and health lies with the employer. Obionu (1999) disclosed that it is the duty of the employers to educate the employees on the danger of the work and provide safety measures.

Albert (1993) opined that occupational health problems persist because of lack of knowledge and on the financial capacity to provide adequate equipment for protection, ventilation and surveillance programmes for workers. Berenice (1998) stressed that many people are at serious risk of health problems and accidents because of the conditions they encounter in their workplaces. Industrial revolution worldwide made man's mode of production to greatly shift base from the use of sheer physical energy

prevalent at the primitive era, to the manipulation of machines and gadgets which require basic knowledge for their operation, (National Research Council, 1999).

Nwachukwu (2000) posited that of the various sources of industrial hazards, the most pronounced are the ergonomic hazards. Basically, ergonomics is the study of how working conditions, machines and equipment can be arranged in order that people can work with them more efficiently (Sinclair, 1992). He added that accidents are among the greatest hazards facing both the industrial workers and the management. Nwachukwu (2000) stated that manufacturing industries in Nigeria, apart from accidents encounter operational problems of noise, toxic materials, heat and stress, radiation, trauma and other health problems and hazards. Okoro (2010) affirmed that in Nigeria, occupational accidents, physical and ergonomic hazards, as well as occupational diseases, are important factors influencing the health of industrial workers. He the suggested that in order to prevent occupational and industrial health problems, that efforts should be geared towards primary prevention. This includes; health education, provision of good working environment, pre-employment and periodic medical examination, continuous environmental monitoring and protection against observed occupational health problems from industries.

Attempt to solve such health problems and provide health needs of industrial workers had led to the branch of health services known as occupational health. Occupational health according to Adeniyi (2001) is a branch of health service specifically concerned with health, safety and welfare of workers of all categories. Mosby (2009) defined occupational health as the ability of a worker to function at optimum level of wellbeing at a worksite as reflected in terms of productivity, work attendance, disability compensation claims and employment longevity.

Regrettably, mechanization of production processes has ushered in a multitude of health problems of the industrial region, summarily referred to as occupational health problem (Seagle, 1988). A problem is an unsatisfactory situation that causes difficulties for people, a puzzle that requires logical thought or a mathematical process to solve it (Sinclair, 1992). Problem when related to health is referred to as health problem. Buyana (2009) defined health problems as conditions which prevent individuals from mobilizing their physical, social and mental resources for optimal living. Asogwa (2000) defined occupational health problem as those

conditions, injuries, infections and trauma, among others, which workers are exposed to in the course of their work or due to the nature of their work.

Okafor (1997) revealed that workers with occupational health problems do not feel secured and cannot be stimulated to put in their best in their daily tasks. Observations in the industries show that some of the factors associated with health problems in the industries include; alcohol intake, poor eating habit, carelessness, dust, fumes, long hours of straining the eyes, lifting heavy objects, long hours of standing and working, exposure to noise, among others. Atwell (1998) disclosed that the health problems could be physical, social, emotional or psychological in nature.

The physical health problems of the industrial workers include; skin irritation, eye defects, stiffness of the limbs, hearing impairment, burns, respiratory tract infection, chest pain, waist pain, oedema, asthma, back injury, dislocation, fracture and cuts (Timiras, 1998). Lowe (2007) identified emotional problems of industrial workers as anxiety, tension, fatique, stress, moodiness, irritability, depression, sleep disturbances, dizziness, lack of job satisfaction and self destructive behaviours. The social health problems include; financial problem as a result of low wages, lack of incentives, maladjustment, maladaptation censorship, and others.

Adeniyi (2001) posited that apart from health problems, those industrial workers also suffer health hazards which could be physical, chemical or biological in nature. Continuing he pointed out that the physical hazard are noise, heat, excessive lighting, radiation, vibration, extreme temperatures and pressure that can cause a lot of problems. About the chemical hazards, he listed liquids (hot and cold), chemical dusts, fumes, vapour, mists, solvents and gases that can cause poisoning. Foster (2002) listed the biological hazards to include; rodents, insects, bacteria, viruses, moulds, fungi and others, which are responsible healthcare.

The provision of adequate healthcare facilities to cater for the health of the workers is an important managerial function of manufacturing industries, since productiyity is dependent on the health status of the workers. Health education of both the employers of labour and the employees, and the enforcement of existing laws are needed to improve the existing standard of occupational health services. Tallinenisa (2008) opined that the health education to be provided for workers should include; personal and environment hygiene, prevention occupational hazards and diseases, and provision of first-aid equipment.

The world over, the quest for production and making profit has led to the proliferation of both small and large scale industries. The nature of industries predisposes industrial workers to many hazards of physical, biological and chemical nature. Such hazards could increase the occurrence of accidents and occupational diseases. All the same, industrial environment could be made to contain an ambient and conducive environment where workers realize their potentials and maintain high productivity with fewer hazards to their health. There are in existence legislations and regulations requiring industrial establishments to provide safety measures for their workers. The implementation of these laws should be mandatory. Eze (2005) observed that there are decline in productivity in Nigerian firms, especially in Nsukka zone, which could be as a result of the fact that workers are not adequately subjected to periodic training, retaining and sensitization. It could be that the morale of workers is low or that they are contending with a lot of health problems which are responsible for the low productivity. It will, therefore, be necessary to find out the problems of industrial workers in industries in Nsukka zone.

Nsukka zone where this study is conducted is observed to have a good number of industries. These industries range from large to small scale industries scattered around the zone. An industry is a manufacturing unit that is involved in transforming or processing material input into new products (Ewa and Agu, 2001). A large scale industry refers to any registered industry with a total asset base of over 150million naira, and whose labour size is one hundred or more, (International Labour Oragnisatio, 2003).

Research Questions

The following research questions were posed to guide the study.

1. What are the physical health problems of industrial workers in Nsukka zone?
2. What are the social problems of industrial workers in Nsukka zone?
3. What are the emotional health problems of industrial workers in Nsukka zone?
4. What is the relationship between job status and occupational health problems of industrial worker in Nsukka?

Hypothesis

There is no statistically significant relationship between occupational health problems of senior and junior industrial

workers at 0.05 level of significance.

Methods

This study adopted the cross-sectional survey research design. This design describes situation as they exist in their natural setting and determines the relationship that exists between specific events (Nworgu, 2006). This design is therefore, appropriate for this study. The population for the study consisted of 1040 workers in industries in Nsukka zone. The sample consisted of 172 industrial workers drawn using the multi-stage sampling procedure. The first stage involved drawing three large and three small scale industries giving a total of six industries. The second stage involved drawing fifty (50) workers each from the three large scale industries and ten (10) workers from each of the small scale industries, using the proportionate random sampling technique. The third stage consisted of selecting twenty-five (25) senior and twenty-five (25) junior workers from the three large industries and five senior and five junior workers from each of the three small scale industries, using the purposive sampling technique, giving the total of 180 workers used for the study.

The instrument for data collection was the questionnaire. It was a 26 item close-ended questionnaire. The questionnaire was validated by three experts from the department of Health and Physical Education, University of Nigeria, Nsukka. The internal consistency estimate obtained for the questionnaire using the Spearman's Rank Order Correlation formular was .85. The instrument was administered and collected after completion personally by the researcher to ensure maximum return. The responses were analysed using frequencies and percentages. The criterion for deciding whether a problem existed was based on the WHO (1997) international standard cut-off point of 50 percent. The chi-square (x^2) statistic was used to test the null hypothesis at .05 level of significance.

Results

Research question 1: What are the physical health problems of industrial workers? (N=72)

Table 1: Physical Health Problems of Industrial Workers

	Yes		No	
Health Problems	f	%	F	%
Eye problems	85	49	87	51
Hearing impairment	46	27	126	73
Respiratory tract infections	131	76	41	24
Heart related problems	83	48	89	52
General body pains	99	56	73	42
Fire accident and electrocution	101	59	71	41
Head injuries, wounds & cuts	142	83	30	17
Backache	121	70	51	30
Overall	101	59	71	41

The result in Table 1 showed that head injury, wounds and cuts 142 (83%) were the common health problems among the industrial workers. This was followed by respiratory tract infection 131 (76%) and backache 121 (70%) as indicated by the respondents. The result also showed that the least experienced health problem by the workers was hearing impairment 46 (27%).

The overall result shows that physical health problems were reported by workers.

Research question 2: What are the social health problem of industrial workers? (N=172)

Table 2: sources of social health problem of industrial workers

	Yes		No	
Health Problems	f	%	F	%
Restriction from union membership	87	51	85	49
Low wages and salaries	154	90	18	10
Lack of recreational facilities	161	94	11	6
Lack of prompt payment of wages	49	28	123	72
No welfare benefits	23	13	149	87
Poor working conditions	74	43	98	57
Lack of opportunity to express views	58	34	114	66
Overall	90	52	82	48

Table 2 showed that lack of recreational facilities was the commonest social health problem of the workers as indicated by 161 (94%) of them. This was followed by low wages and salaries 154 (90%) and lack of training, incentives and motivation 133 (66%). The least reported social health problem was no welfare benefits 23 (13%). In overall social health problems were reported by the workers.

Research question 3: What are the emotional health problems of industrial workers? (N=172)

Table 3: Emotional health problem of industrial workers

	Yes		No	
Health Problems	f	%	F	%
Boredom and job dissatisfaction	81	47	91	53
Phobia, anxiety, tension and nervousness	92	53	80	47
Fatigue and dizziness	65	38	107	62
Aggressiveness and moodiness	76	44	96	56
Stress and depression	40	23	132	77
Self destructive behaviours	101	59	71	41
Under-motivation and under-appreciated	97	56	75	44
Lack of respect and recognition	93	54	79	46
Overall	81	47	91	53

Data in Table 3 showed that the commonest emotional health problem of industrial workers is self destructive behaviours 101 (59%). This was followed by under-motivation and under-appreciation 97 (56%) and lack of respect and recognition 93 (54%). Table 3 also revealed that the least experienced emotional health problem was stress and depression 40 (32%). The overall shows that emotional health problems were minimally 81 (47%) reported.

Research question 4: What is the relationship between job status and occupational health problems of industrial workers?

Table 4: Relationship between job status and occupational health problem on industrial workers (N=172)

	Senior Workers (n= 74)				Junior Workers (n = 98)			
	Yes		No		Yes		No	
Health problems	f	%	f	%	f	%	F	%
Physical health problems								
Eye problems	35	47	39	53	50	51	48	49
Hearing impairment	16	22	58	78	30	31	68	69
Respiratory tract infections	73	99	1	1	58	59	40	41
Heart related problems	51	69	23	31	32	33	66	67
General body pain	32	43	42	57	67	68	31	32
Fire accident and electrocution	63	85	11	15	38	39	60	61
Health injury, wounds and cuts	63	85	11	15	79	81	19	19
Backache	59	80	15	20	62	63	36	37
Sources of social health problems								
Restriction from union membership	37	50	37	50	50	51	48	49
Low wages and salaries	65	88	9	12	89	91	9	9
Lack of training, incentives and rewards	68	92	6	8	45	46	53	54
Lack of recreational facilities	65	88	9	12	96	98	2	2
Lack of payment of wages	38	51	36	49	11	11	87	89
No welfare benefits	11	15	63	85	12	12	86	88
Poor working conditions	30	41	44	59	44	45	54	55
Lack of opportunity to express views	16	22	58	78	42	43	56	57
Emotional health problems								
Job dissatisfaction and boredom	45	61	29	39	36	37	62	63
Phobia, anxiety, tension and nervousness	59	80	15	20	33	34	65	66
Fatigue and dizziness	20	27	54	73	45	46	53	54
Aggressiveness and moodiness	40	54	34	46	36	37	62	63
Stress and depression	16	22	58	78	24	25	74	76
Self destructive behaviours	72	97	2	3	29	30	69	70
Under-motivation and under-appreciation	38	51	36	49	59	60	39	40
Lack of respect and recognition	23	30	52	70	71	72	27	28
Overall	40	54	34	46	49	50	49	50

The result in Table 4 showed that the most commonly reported physical health problems among the senior workers was respiratory tract infections 73 (99%), among the junior workers head injuries, wounds and cuts 79 (81%). Also, the Table showed that lack of training, incentives and rewards 68 (92%) and lack of recreational facilities 96 (98%) were the most commonly reported social health problem among the seniors and juniors respectively. Table 4 also revealed that the commonest emotional health problem among the senior and junior workers were self destructive behaviour 72 (97%) and lack of respect and recognition 71 (72%) respectively. The overall result showed that there is a relationship between job status and occupational health problems of industrial workers.

Hypothesis

There is no significant relationship between occupational health problems of senior and junior industrial workers at .05 level of significance

Table 5: Summary of chi-square (X^2) analysis of significant relationship between occupational health problem of senior and junior industrial workers.

Health problem	N	Cal X^2 value	Tab X^2 value	df	P	Decision
Physical health problem	172	32.74	14.07	7	.05	Not accepted
Social health problem	172	41.00	14.07	7	.05	Not accepted
Emotional health problem	172	67.84	14.07	7	.05	Not accepted
Overall	172	47.19	14.07	7	.05	Not accepted

Results in Table 5 showed that the calculated X^2 value for each dimension of the health problems of senior and junior industrial workers were greater than the Table X^2 value. Also, the calculated overall chi-square (X^2) value is greater than the Table X^2 value at .05 level of significance (cal X2 47.19 Tab X^2 14.07). Therefore, the null hypothesis of no significant relationship between occupational health problems of senior and junior industrial workers was not accepted at .05 level of significance, showing that a relationship exists.

Discussions

The findings of the study revealed that industrial workers in Nsukka zone reported of physical health problems as indicated by the overall result (59%) in Table 1. The finding showed that head injury, wounds and cuts (injuries) were the most common health problem followed by respiratory infection as indicated by 83% and 76% of the respondents respectively. This finding was expected and so not surprising. This is because in an industry, there are many machines and gadgets, some above and others below, and people are bound to collide, tripped by or receives cuts from these gadgets as they work with them. Respiratory tract infections should be expected to be reported by the workers as a result of smoke and fumes that exude from such industries. This finding agrees with Timiras (1998) that industrial workers suffer from physical health problems such as respiratory infections, hearing impairments, wounds and cuts, waist pain, among others. The finding that hearing impairment was the least (27%) reported health problem was surprising going by the amount of noise in an industry. This is in contrast with the findings of Timiras (1988) and Isah and Okojie (2006) that hearing impairment was the most common health problem of industrial workers. This could be from the fact that, as observed by the researcher, most of the workers wore ear devices to protect their ears.

The findings showed that social health problems were reported among the industrial workers of which the most common ones were lack of recreational facilities (94%) and low wages and salaries (90%) (Table 2). These findings are surprising knowing that incentives and good wages are associated with motivation and are major determinants of high productivity and efficiency at work places. However, the finding is in line with Dike (2003) who observed that more often than not, industrial workers are not paid their living wages and incentives; they are used and discarded without effective retirement programme.

The findings in Table 3 revealed that emotional health problems were reported by industrial workers in Nsukka, with the most common problems being, self destructive behaviours (59%), under-motivation and under-appreciation (56%) and lack of respect and recognition (54%). These findings are in line with Dike (2003) who pointed out that the real problem facing Nigerian workers is that they are unmotivated and under-appreciated. Where such problems exist, people find ways to cope with the situation, hence some engage in self destructive

behaviours such as excessive drinking, smoking and taking of drugs. Such behaviours complicate an already bad situation. In view of this, Isa and Okojie (2006) advised that health education of both employees of labour and the employees, and the enforcement of existing laws are needed to improve the existing standard of occupational health services.

The findings in Table 4 showed that a relationship existed between job status and occupational health problems. The overall result showed that the senior workers reported more of occupational problems than the junior workers. This could be because the senior workers carry out most major operations and are in charge of machines. This finding is in contrast with Hopkins (2000) assertion that senior employees participate in decision making process and this provides them with a sense of belonging and job security. The chi-square analysis showed that a significant relationship existed between job status and occupational health problem by not accepting the null hypothesis of no significant relationship.

Conclusion

The result of findings of this study showed that industrial workers in Nsukka experienced a lot of occupational health problems. The study revealed that physical health problems were the most common, which were in the form of injuries, pains, infections and fire accidents (burns). Social health problems were also experienced by the workers. These took the form of low wages and incentives and lack of recreational facilities and relaxation centres. These are very important since these workers need to relax their muscles and minds after a long and busy day so as to sustain their health.

The study showed that emotional health problems were encountered. These were in the form of under-motivation, under-appreciation and self destructive behaviours (drinking, smoking, drugs, etc). These may have occurred as a result of job satisfaction and stress, among others. Based on the findings of the study, the following recommendations were made:

1. The employers should provide periodic training for the workers to enable them understand the best strategies to be adopted in reducing exposure to occupational health problems.
2. The wages and work incentives given to the workers should be reviewed from time to time for the purpose of enhancing it to be in line with what obtains in other areas of employment.

3. The employers and employees should adhere strictly to the ILO safety and work conditions in order to ensure a safe working environment and improved health status, which leads to greater productivity.

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