

OCCUPATIONAL HEALTH EDUCATION: A CATALYST FOR SUSTAINABLE ECONOMIC DEVELOPMENT

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Abstract

Increased morbidity and mortality of the global workforce cannot guarantee the much needed economic growth and development. "Health is wealth" is a common maxim that has defied all contradictions. So, invigorating health education with emphasis on occupational health is a sure approach to achieving economic growth and sustainable development. A healthy workforce means a productive economy. Education is acknowledged worldwide, as the tool for development. It is the process of facilitating learning or acquisition of knowledge, skills, values, morals, beliefs and habits under the guidance of educators through teaching, training, storytelling, discussion and research. Therefore, for sustainable development to take place, there must equally be, a sustainable, worthwhile learning and training. Also, as the work environment is replete with hazards, occupational health education is structured to provide awareness, knowledge and information on workplace hazard and controls. It was therefore recommended that in order to produce result, occupational health education should be given to both employees and employers; while governments at all levels on their part, should muster the political will to initiate and sustain occupational health education and training for all workers; as well as make concerted efforts to introduce and vitalize occupational health and safety education, in Nigerian school curricula at all levels of education amongst others.

Key Words: Education, Occupational Health, Hazard, Workplace, Sustainable Economic Development.

Introduction

Occupational health is essentially preventive medicine. The World Health Organization (WHO) as cited in Park (2011), defined occupational health as, ‘that health that is aimed at promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupation; the prevention among workers of departures from health caused by their working conditions; the protection of workers in their employment from risk resulting from factors adverse to health, the placing and maintenance of the worker in an occupational environment adapted to his physiological and psychological equipment, and, to summarize, the adaptation of work to man and of each man to his job’.

Education is the process of giving and receiving systematic instruction, especially in a school environment. Wikipedia (2021) professed, it is an enlightening experience. From the socioeconomic standpoint, Amadioha (2014) described education, as an organized system or process, through which society develops its human resources by equipping them with desirable and worthwhile knowledge, skills, attitudes and values which will enable them run effectively, the socio-political and economic institutions as well as other facets of human endeavours for nation building and growth. Corroborating these assertions, Adedigba (2017) affirmed education, as the bedrock of any economy; be it at the level of nursery/primary, secondary and/or tertiary. Furthermore, adequate education which translates into economic development helps to obtain physical necessities of life, such as food, clothing and shelter, employment, participation in government and gender equality amongst others.

The work environment is full of hazards - both health and safety, which many workers are oblivious of. Occupational health education is usually structured to provide awareness, knowledge and information on workplace hazards’ identification and assessment - to establish their risk levels and institute control measures aimed at eliminating or mitigating them and at the same time initiate surveillance to watch achievement or otherwise. Occupational health education includes safety and health training for workers, who are involved in hazardous jobs (National Institute of Environmental Health Science, 2020).

The growth of any economy is dependent on the level of education of its citizens. Perhaps this is one of the biggest challenges Nigeria has as a country, due to the staggering number of about 60 million illiterates in the country (Adedigba, 2017). A robust economy is a foundation or recipe for security. For security to be rooted in the society there must be a sustainable development. This implies that, human societies

must live and meet their needs without compromising the ability of future generations to meet their own needs.

Concept of Occupational Health

Workers in all works of life globally across all sectors of the economy have become more endangered and susceptible to accidents which range from minor to fatal, as some have lost their lives in the line of duty, while others have lost vital organs. Preventive medicine and occupational health have same aim – the prevention of diseases and maintenance of the highest degree of physical, mental and social well-being of workers in all occupations; the levels of application, specific protection, early diagnosis and treatment, disability limitation and rehabilitation; the tools and the same epidemiological approach, statistic, health screening, health education among others (Dastur as cited in Park, 2011). Occupational health therefore solely deals with the health of the worker and the work environment. It involves and revolves around - identification of workplace hazards and control of the risks arising from these hazards under the following broad headings - physical, chemical, biological, ergonomic and psychosocial in order to establish and maintain a safe and healthy work environment. Hazards are anything or everything that has potential to cause harm or hurt the worker.

The workplace is the physical location where someone routine tasks. Such a place can range from a home office to large office building or factory. The workplace is one of the most important social spaces other than the home, constituting a central concept for several entities: the worker and his/her family, the employing organization, the customers of the organization and the society as a whole (Jackson & Suomi, 2004). The authors further posited that workplace is grouped into three environments; the building environment, physical environment and also the social environment. Thus, any of these can greatly influence the performance (output) of the worker. Hence a friendly, safe and focused workplace gives rise to a healthy and vibrant workforce. This will translate to high productivity and output. A high productive workforce will obviously lead to a positive development of any nation.

The workplace is equally, the environment that the worker spends about eight hours of the day, carrying out the tasks associated with his/her job. During this period, he/she may likely get in contact with Physical hazards, such as loud noise, vibration and radiation. Chemical hazards may include solvents, gases and heavy metals such as ether, chlorine and mercury. Biological hazards include virus, bacteria, parasites and other

harmful plants and animals. Ergonomic hazard may include awkward postures and use of inappropriate tool, equipment or furniture. Psychological hazards may include stress or poor condition of service among others. Safety hazards include electricity, rotating equipment or dangerous machinery. Occupational health, therefore, is the application of preventive medicine in all places of employment.

Reports of work related fatalities; injuries and loss of property as a result of workplace hazards are common in both developed and developing countries. According to Fajana as cited in Amanze and Agu (2014), not less than two hundred cases of industrial accidents occur in workplace in Nigeria daily with equally high rate of fatalities. The International Labor Organization (ILO) (2015) in its recent publication confirmed that, every year over 2.3 million workers (women and men) die at work from an occupational injury or disease. Over 350,000 deaths are due to fatal accidents and almost 2 million deaths are due to fatal work-related diseases. In addition, over 313 million workers are involved in non-fatal occupational accidents causing serious injuries and absences from work. The ILO estimates also revealed that 160 million cases of non-fatal work-related diseases occur annually. These estimates imply that, every day approximately 6,400 people die from occupational accidents or diseases and that 860,000 people are injured on the job.

The devastating effects on workers and their families cannot be fully calculated. However, the ILO has estimated the great economic burden of not investing in OSH (so as to prevent occupational accidents and diseases) at approximately four per cent of the world's GDP per year (roughly 2.8 trillion US dollars). Further to the economic constraints, the human costs are unacceptable; a global society has a moral obligation to reduce the human and economic costs. In Nigeria, the statistics is scanty or rarely available. Legislations are neither adequate nor robust; as such, projections on occupational health incidents, education and training are opaque.

Furthermore, as estimates show, work-related diseases represent the main cause of death at work, killing almost six times more workers than occupational accidents. This highlights the need for reinvigoration of occupational health education as preventive measure; one that focuses on work-related diseases and not only on occupational injuries.

Concept of Education

Education is a major liberating force and agent of social change for the training of the young for competent adult role performance. Thus, the major concern of any

nation the world over is how best to fully utilize education to develop her citizens' ability to manage and induce change. Hence education, in all of its forms, is accepted as a tool with which every individual and nation could achieve personal and national development respectively. Experience shows that the more educated one is, the more useful he becomes to himself/herself, the immediate family, community, and nation and delivering him/her from the shackles of ignorance, inferiority complex and poverty and equipped him/her with the knowledge, skill, and qualities needed to succeed in the society. The acquisition of education raises the social and economic status of the individual and liberates him/her from pre-conceived ideas, taboos, superstition and ignorance. As such a society with educated individuals is an enlightened society and is set for progress, positive change and development.

According to Ajaegbo (2000) education is the acquisition of right values, habits, norms, abilities, skills and competence, all of which help to make the individual a good functional and useful citizen and prepares him/her to play effective role in the growth of the society. Accordingly Madumere-Obike & Uchechi (2009) averred that education provides beneficiaries with basic and specific skills that are indispensable in the production and distribution of goods and services required by the economy. Similarly, Boyi (2013) opined that education is the complete mental and physical transformation person(s) as a result of the structured mode of training that person(s) acquired to be more productive in a given society. In collaboration with this, Ocho as cited in Obunadike (2013) posited that education is the society's cultural reproductive system and the processing of transmitting, preserving, developing and promoting the culture of the people. Hence education is an instrument of excellence for effective national development.

In developing the individual, society and the nation for sustainable development, the educated individual has a great role to play in preserving, transmitting and transforming the culture; and his potentials as an individual should be evident to him and the society. He should be able to acquire knowledge and skills to enable him contribute meaningfully to solving the problems and providing for the needs of the society.

Amadioha (2016) advocated that, the role of education is to produce a nation that will be both modern and free. In modernizing a nation, education should provide economic growth. This means that, it must produce skilled manpower, with knowledge for research, leading to growth and productivity in the economy. Education must

provide for national unity and political development and security. Amadioha also stated that the primary basis of a political democracy (which in-turn translates to economic democracy and sustainable development) is a literate and informed populace, capable of making informed decisions which the political and economic systems require of it. He argued that, if a society is to make intelligent decisions and also be able to register its judgments effectively, it must be adequately literate.

Concept of Occupational Health Education

Since 1986, the National Institute of Environmental Health Science (NIEHS) has supported training and education programs designed to protect workers and their communities from exposure to toxic agents encountered in the workplace worldwide. Giving credence to these declarations, Achalu (2016) described occupational health and safety as ‘ a state in which a worker is able to function at an optimum level of well-being at the worksite; reflected by higher employee productivity, increase attendance at work, a reduction in worker’s compensation claims and an increase in longevity in employment status’. Achalu averred that, this can be achieved only, if the workers are provided adequate occupational health education. Unfortunately, occupational health education has not been given the pride of place (it deserves) in the overall educational pursuit vis-a-vis the Nigeria school curriculum. Due attention has not been given to it, basically due to the seeming lack of knowledge or awareness of its importance in economic development by the operators of government and curriculum developers.

The main thrust of occupational health is in its skill to envisage workplace hazards, identify them, evaluate and proffer control measures and institute surveillance. The focus is to eliminate or mitigate hazards that can pose health or safety threats to workers; thus, providing a healthy and safe work environment for optimum productivity. A healthy workforce either individually or collectively provides or ensures sustained productivity and development of the society.

It is humans, both men and women, that develop, drive and grow economy of any nation, therefore, their health is central to the overall economic outputs and achievements. It is obvious that, a sick man cannot be optimally productive. Good health is needed for optimum productivity; and this can be achieved, only, by sustainable health education programme.

The primary focus of occupational health education program should basically be on:

- i. Knowledge transfer/skills development (for example, a program designed to teach workers about the safety and the five groups of health hazards present in their workplace and controls
- ii. Attitudinal change (for example, a program directed towards increasing workers' level of concern about safety and health hazards in the workplace and enhancing the extent to which they believe that it is possible to reduce their exposure to such hazards by taking certain actions) and finally.
- iii. Social action or "empowerment" (for example, a program designed to encourage workers to talk with each other about workplace hazards and to take collective action to control the risks) (O'Connor et al., 2014).

Albeit, occupational health education should not be given to employees alone but also to employers, because it is the responsibility of employers to put in place, their business' health management system and also initiate the health risk assessment of each unit of their businesses. This will ameliorate the workplace health problems, improve productivity and aid sustainable development (National Institute for Occupational Safety and Health (NIOSH), 2010).

Ahmed and Newton-Smith (2010) pertinently averred that years of education and being informed about hazards associated with jobs were the most influencing factors on the overall knowledge and attitude of workers toward occupational health and safety and illness. Similarly, Alli (2008) had observed that, the socio-economic and human costs of occupational incidents have been a source of concern to labour organizations, individuals and of course governments; necessitating researches into techniques of curbing or controlling this loss. The best possible method of course, could only be, through education, training and enlightenment.

The International Labour Organization (ILO) (2010) opined that, because occupational hazards arise at the workplace, it is the responsibility of employers to ensure that the work environment is safe and healthy. This means that, they must protect workers from occupational health and safety risks. However, employers' responsibility goes beyond this, it also includes providing knowledge of occupational hazards and a commitment to ensure that management processes promote safety and health at work. For example, the awareness of safety and health implications of workplace hazards should guide decisions on the choice of technology and how work is organized and

executed, as this would boost economy and security. Education and training is therefore, one of the most important tasks to be carried out by employers. Buttressing this fact, Botchar (2003) highlighted the need and importance of enlightenment and knowledge of occupational health and safety in preventing occupational incidents in the workplace in his support document - 'Keeping Your Facilities Safe' for Creative Arts Teachers. This effort by Botcher had garnered support from many establishments in developed countries; encouraging them to provide health and safety handbook to new employees.

Also, a recent study carried out in America, Europe and Asia to determine the effect of occupational safety and health (OSH) education during formal schooling on the incidence of workplace injuries (WIs) in young people starting their careers revealed that subjects who reported having received OSH education at school had two times less WIs than those declaring not having received OSH education. A lower WI risk was also observed for participants who received the 'first aid at work' training (Boini et al., 2017). This result affirms the need for pre/on-job occupational health and safety education; which in-turn will reduce workplace incidences, absenteeism and boost productivity; paving way for sustainable development and security.

In unsafe workplace, (one, full of health and safety hazards), for example the current Covid-19 pandemic 'Employees Don't Feel Safe Going to Work', research has revealed (EHS TODAY, 2021). New studies of workers' perceptions found that majority of workers don't think enough has been done to protect and guarantee their health and safety. 68% of workers in a recent study claimed, they were not feeling safe to go to work; with this trend, absenteeism will be high. This portends a bleak economy and any nation with this type of statistics is headed for economic doom unsustainable development and insecurity.

Occupational Health Education as the Foundation for Economic Development and Growth

Education at all levels and discipline is substantially underfunded in Nigeria. The United Nations Educational, Scientific and Cultural Organization (UNESCO) recommended that 15 to 20 percent of governments' budgets be allocated to education. Equally, Scholars have at various fora called on governments at all levels to increase education funding for better results. Amoo (2019) reported that Nigeria allocated 6.7% of 2020 budget to education ministry and in 2021; EDUCELEB.COM (2021)

announced that 6.3% of 2021 budget was for education. This is a far cry from the recommended 15-20% by UNESCO.

Economists, generally have agreed that economic development and growth (and indeed sustainable development) are influenced by four factors: human resources, physical capital, natural resources and technology. Highly developed countries and governments focus on these areas. Less-developed countries, even those with high amounts of natural resources, lag behind when they fail to promote research in technology and improve the skills and education of their workers (Woodruff, 2019). To achieve sustainable development and security, nations and indeed, Nigeria should deliberately provide substantial and adequate fund for education and research.

The overall costs of occupational accidents and diseases are often greater than immediately perceived. Conversely, investing in occupational safety and health education reduces both direct and indirect costs, decreasing medical bills and compensation, while also improving performance and productivity. It also reduces absenteeism and increases worker morale. Nationally, reduced social security and health care costs, means lower taxes, better economic performance and enhanced social benefits.

Occupational health education creates employee wellness; help them become more aware of their own physical and mental health. It motivates them to be more mindful of their health, to make key decision and have positive lifestyle changes. Healthy employees are more productive, have higher morale and take less sick time.

Conclusion

Health education and training for skills of the labour force have a direct effect on economic growth and development. A skilled, well-trained workforce is more productive and capable of creating a high-quality outputs that add efficiency to the economy. Shortage of skilled labour can be a deterrent or detrimental to economic growth. An under-utilized, illiterate and unskilled workforce will become a clog on economy and may possibly lead to higher unemployment, under-productivity, economic disaster and high level of insecurity. Health-educating the workforce is a sure step in ensuring economic boom and sustainable development in a nation.

Recommendations

- i. Governments at all levels should support occupational health education by introducing it into the school curriculum at all levels education – primary through to tertiary
- ii. Corporate bodies like big companies and small/medium industries should invest in occupational health and safety training and retraining of workers through in-house training and short courses organized by occupational health and safety professional bodies.
- iii. Government and corporate establishments should contract health and safety experts to produce workplace health and safety jingles on radio and television as well as flyers for the general workforce.
- iv. Employers should, regularly organize in-house occupational health and safety education for employees, employing the services of occupational health and safety experts.
- v. Government at all levels should invest more in education from the primary to tertiary school level.
- vi. Occupational health education should be included from secondary up to tertiary level of education.

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