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## **Health and Wellness Lifestyles of Private Industrial Workers in Kumasi, Ghana**

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### **Abstract**

Adherence to good health and wellness lifestyles by workers is essential if industries would be maximally productive. This study examined exercise and fitness adherence, nutritional practices, tobacco smoking, alcohol and drugs use, emotional stress, safety practices and disease prevention lifestyles among industrial workers in Kumasi. 222 workers (mean age = 29.9±8.6years) sampled among ten allied industries participated in the study. Modified and revalidated questionnaire using split half test with a reliability coefficient of 0.72 was used for data collection. Difference in proportion was performed using Fischer exact test. Results reveal that participants always almost ( $p=0.0026$ ,  $p<0.05$ ) and sometimes ( $p=0.0200$ ,  $p<0.05$ ) adhere to exercise and fitness program significantly. Alcohol and drugs were sometimes ( $p=0.0042$ ,  $p<0.05$ ) and never ( $p=0.0434$ ,  $p<0.05$ ) used significantly. Also, the workers sometimes ( $p=0.0111$ ,  $p<0.05$ ) and never ( $p=0.0064$ ,  $p<0.05$ ) engage in disease prevention lifestyles significantly. There was a significant difference in proportion of participants response on the influence of health and wellness promotion lifestyles at workplace ( $p=0.0002$ ,  $p<0.05$ ). Workers' involvement in health and wellness lifestyles should be encouraged, motivated and fostered. Also health promotion programme should be included in the mode of operation of employees as a matter of policy in Kumasi, Ghana.

**Keywords:** Exercise and fitness adherence, Nutritional practices, Emotional stress, Safety practices and Disease prevention, Lifestyles, Industrial workers

## Introduction

The major motive of any private organisation is profit optimization. Maximization of profit is only possible when the human capital/power as the core factor of production is well nourished to live wellness lifestyles. Human wellbeing is unarguably an end in itself, but a better understanding of the complex relationships between health and economic growth is important for proper priority setting and policy implementation (Roscoe, 2009). Health involves the process of discovering, using and protecting all the resources with the body, mind, spirit, family, community, and environment (Hales, 2005). Wellness on the other hand connotes purposeful, enjoyable living or deliberate lifestyle choice characterised by personal responsibility and optimal enhancement of physical, mental and spiritual health (Hales, 2005). Wellness is not a static state rather involves giving good care to physical self using mind constructively, expressing emotions effectively, and being creative and concerned about physical, psychological and spiritual environment (Mitchell & Bates, 2011; Miller & Foster, 2010; Ed, 2010). The general six dimensions of health and wellness lifestyles of Physical, Social, Emotional, Intellectual, Spiritual and Occupational (CDC, 2012; Hancock, 2011; NPC, 2011) involve adopting a personal sense of balance in one's life of exercise and fitness adherence, nutritional practices, tobacco use, alcohol and drugs use, emotional stress, safety and disease prevention lifestyles. Workplace health and wellness promotion include aggregate of all purposeful activities designed to improve personal and public health through a combination of strategies such as competent implementation of behavioural change strategies, health education measure, risk factors detection, health enhancement and health maintenance (Faktor, 2009; Schuster, Dobson, Jauregui and Blanks, 2004). Studies reiterate the plow back ability of workers with good fitness level and physical activity lifestyle (Bloom & Canning, 2008; Business, 2007; Dyck, Frisby, Dyck, & Frisby, 2000). It is assumed that the increased capacity for physical work from improved fitness levels will transfer to an ability to work harder and longer in the office (Berry, Mirabito, & Baun, 2010; Lechner, de Vries, Adriaansen, & Drabbels, 1997; Howard & Mikalachki, 1979;). This transfer from physical to mental capacity is expected to improve an individual's ability to maintain higher levels of concentration and mental effort (Frankish, 2011; Catteeuw, Flynn, & Vonderhorst, 2007; Voit, 2001).

Prioritizing workers' nutritional needs as strategy to enhance productivity at workplace has more recently been emphasized (Jennings, Mcevoy, & Corish, 2011; Schwartz & Riedel, 2010). This idea is hinged on the fact that research has shown no better way to slow or even reverse the progress of aging itself (being always active) and of all the age-related degenerative conditions than through the combination of aerobic and strength-building exercise and a balanced nutritious diet (Wardlaw, 2003). Many scholars have revile the prevalence (Mbatia, Jenkins, Singleton, & White, 2009; Frone, 2006) and adverse effects (Melotti et al., 2011; Frone & Brown, 2010; Frone, 2009; Conry, 1991) of tobacco use, alcohol and drugs use on productivity at workplace.

Emotional stress in workplace has garner closer attention by researchers due to its significance contribution to declining rate of productivity of workers (Li, Jiang, Yao, & Li, 2013; McCaughey, DelliFraine, McGhan, & Bruning, 2013; Christian, Bradley, Wallace, & Burke, 2009; Ashkanasy, Ashton-James, & Jordan, 2003; Brotheridge & Grandey, 2002; Cherniss, 1998). A emotionally unstable employee will stay production process and even distort at times order of production as contrary to emotionally balanced worker (Chopra, 2009). Safety practices and disease prevention relate with productivity at the workplace by providing a global perspective of the current status of the fields of workplace health

promotion and health management. The prevailing chronic disease trends coupled with economic pressures have proven a significant challenge for employers and employees alike (Kirsten, 2010). Workplace health promotion programs in the advanced world typically focus on the individual health risks and work-related hazards of employees. While a global growth trend in workplace health promotion can be observed the number of companies which take a proactive and integrated approach to workplace health in Kumasi, Ghana, remains miniature. A number of specific tools and programs for integrated health management, such as self-report instruments to measure presenteeism and absenteeism are missing. Existing occupational health services in strategies are insufficient to address the current challenges. Improved employee health can only be achieved in a sustainable manner where all health-related services are integrated within industries to serve as lifestyle factors targeted at wellness of individual employees.

### Methodology

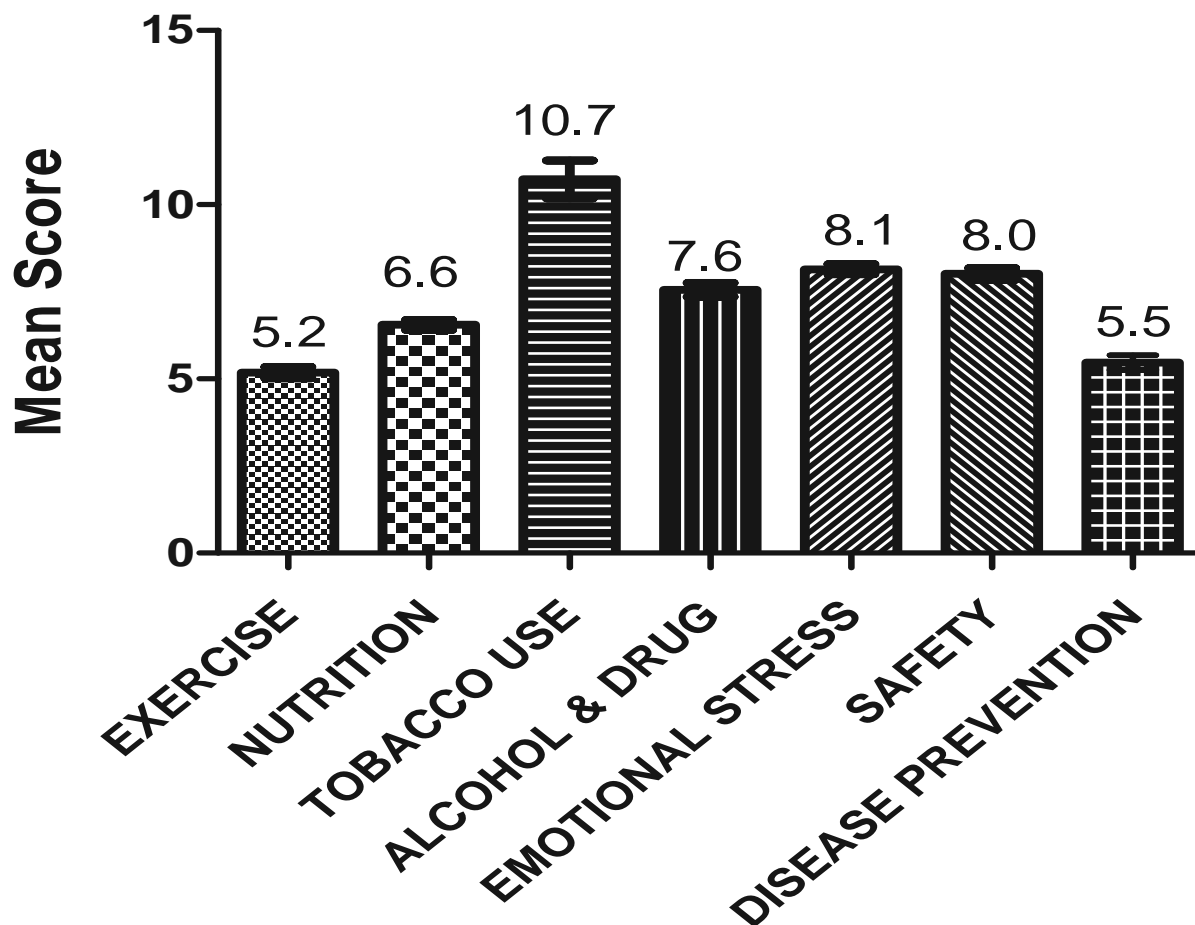
The descriptive survey research design was adopted for this study. The double-stage sampling technique adopted is the purposive and stratified type. The purposive sampling was used to select ten allied industries (four mobile telecommunication companies, three hotel and hospitality industries and three malls) in Kumasi and Accra in Ghana. Stratified sampling technique on the other hand was used to select twenty two (22) workers in each of the ten (10) industries except two with twenty three (23) making a total of two hundred and twenty two (222) respondents in all. The Fahey, Insel and Roth (2013) lifestyles evaluation questionnaire was modified and used as the main instrument of data collection. The first part of the modified version of the instrument used asked questions on respondents' age, gender and marital status. The second part has items assessing Exercise and fitness adherence, Nutritional practices, Tobacco use, Alcohol and Drugs use, Emotional stress, Safety and Disease Prevention lifestyles. The instrument was developed on a three-point Likert type scale with almost always (3), sometimes (2) and never (1) as responses. The calculated reliability correlation coefficient of the instrument using Guttman Split-half is 0.72. The instrument was administered with the help of ten (10) trained research assistants, and the collection of the completed instruments was done on the spot. Data was entered into Excel for window 7 and GraphPad Prism version 5.00 for windows was used for these statistical analyses (GraphPad software, San Diego California USA, [www.graphpad.com](http://www.graphpad.com)). Difference in proportion was performed using Fischer exact test.

### Results

**Table 1.** Demographic Characteristics of Study Participants

Parameter	Total = 222	Male 149 (67.1%)	Female 73 (32.9%)
Age (mean ± SD)	29.9±8.6	30.9±9.4	27.9±6.4
<b>Marital Status</b>			
Single	138 (62.2)	92 (61.7)	46 (63.1)
Married	84 (37.8)	57 (38.3)	27 (36.9)

Continuous data are presented as mean ± SD and categorical data presented as proportions.



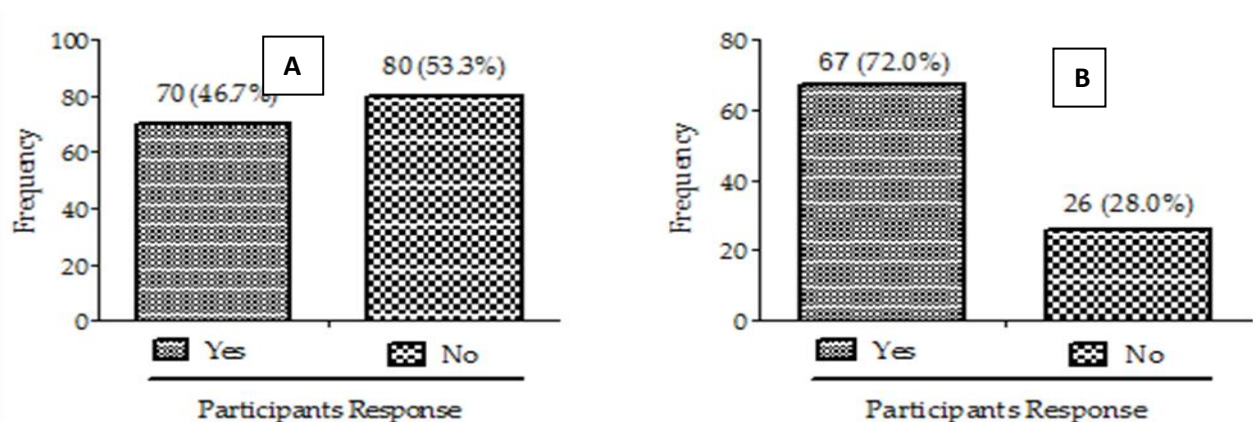
**Figure1.** Means scores of lifestyle evaluation of workers towards health and wellness promotion

Figure 1 shows that the workers have excellent positive lifestyle in tobacco smoking having mean score above ten ( $10.7 > 10$ ); good health practices in, emotional stress, safety practices, alcohol and drug use, and nutrition (mean score between 6 and 8) but need improvement; and health and wellness risks are associated with safety practices and exercise and fitness adherence lifestyles of the workers (mean score  $< 6$ ) (Fahey, Insel and Roth, 2013).

**Table 2.** Participants Response towards Health and Wellness Lifestyles

Lifestyles	Total N (%)	Male N (%)	Females N (%)	P-Value
<b>Exercise and Fitness Adherence</b>				
Always Almost	45 (20.2)	38 (26.0)	7 (9.0)	0.0026**
Sometimes	170 (76.2)	104 (71.2)	66 (85.7)	0.0200**
Never	8 (3.6)	4 (2.7)	4 (5.2)	0.0957
<b>Nutritional Practices</b>				
Always Almost	78 (35.5)	47 (32.0)	31 (42.5)	0.1365
Sometimes	141 (64.1)	99 (67.3)	42 (57.5)	0.1797
Never	1 (0.4)	1 (0.7)	0 (0.0)	1.0000
<b>Tobacco Smoking</b>				
Always Almost	-	-	-	-
Sometimes	95 (60.9)	65 (63.1)	30 (56.6)	0.4896
Never	61 (39.1)	38 (36.9)	23 (43.4)	0.4896
<b>Alcohol and Drugs Use</b>				
Always Almost	132 (61.4)	81 (56.6)	51 (70.8)	0.0536
Sometimes	76 (35.3)	60 (42.0)	16 (22.3)	0.0042**
Never	7 (3.3)	2 (1.4)	5 (6.9)	0.0434*
<b>Emotional Stress</b>				
Always Almost	49 (22.8)	33 (22.9)	16 (22.5)	1.0000
Sometimes	166 (77.2)	111 (77.1)	55 (77.5)	1.0000
Never	-	-	-	-
<b>Safety Practices</b>				
Always Almost	56 (30.8)	41 (32.0)	15 (27.8)	0.6028
Sometimes	117 (64.3)	82 (64.1)	35 (64.8)	1.0000
Never	9 (4.9)	5 (3.9)	4 (7.4)	0.4537
<b>Disease Prevention</b>				
Always Almost	6 (3.2)	4 (3.3)	2 (2.9)	1.0000
Sometimes	155 (81.6)	93 (76.2)	62 (91.2)	0.0111*
Never	29 (15.2)	25 (20.5)	4 (5.9)	0.0064**

Data are presented as frequency (proportion) and compared using Fisher's exact test  
 \*\* is very significant at 0.05, \* is significant at 0.05



**Figure 2.** Participants' Response on Establishment (A) and Influence (B) of Health and Wellness Lifestyles Promotion at Workplace

Some of the participants did not respond to the aspect stressed in figure 2 which gave reason for the sample sizes reduction. From the figure, out of 150 respondents, 80(53.3%) gave contrary opinion on the establishment of health and wellness promotion programme in their workplace and of 93, 67 (72.0%) responded that they agreed health and wellness promotion programme has beneficiary influence on workers' workplace productivity. The figure also revealed that there was a significant difference in proportion of participants response on the influence HWL at workplace ( $p=0.0002$ ,  $p<0.05$ ). However, there was no statistical significant difference in proportion between participants response on the establishment of HWL ( $p=0.6753$ ,  $p>0.05$ ).

## Discussion and Conclusion

This study evaluates exercise and fitness adherence, nutritional practices, tobacco smoking, alcohol and drugs use, emotional stress, safety practices and disease prevention lifestyles of industrial workers in Kumasi, Ghana. This study revealed that, as far as the ten industries are concerned, workers' lifestyle in tobacco smoking was excellent. This finding shows that the workers are aware of the effects of tobacco smoking and putting their knowledge to work by practicing good health lifestyles (Fahey, Insel and Roth, 2013). Studies revealed that practicing good health habits in tobacco smoking declines liver problems, respiratory impairment and lung cancer (Passey, D'Este, & Sanson-Fisher, 2012; Underwood et al., 2012; Mucha, Stephenson, Morandi, & Dirani, 2006). Smoking (in any form) is a known cause of cancer of the lung, larynx, oral cavity, bladder, pancreas, cervix, kidney, stomach, blood, liver, colon and rectum, and esophagus (Schmidt, 2014; U.S. Department of Health and Human Services, 2014).

The study also revealed that health and wellness practices in emotional stress, safety practices, alcohol and drug use, and nutrition of the workers were good but need improvement. These support the notion that continuing anxiety, insecurity, low self-esteem, social isolation and lack of control over work and home life, have powerful effects on health and productivity (Braveman, Egerter, & Williams, 2011; Viner et al., 2012; World Health Organisation (WHO), 1998). ComPsych StressPulse<sup>SM</sup> Report (2013) showed that stressors such as workload, people issues, lack of work/life balance and job insecurity can cause a dip in productivity at work. ComPsych StressPulse<sup>SM</sup> Report (2013) further emphasised that emotional stress cause workers to experience percentage effects tabulated in table 3.

Table 3 exemplifies the prevalence loss of productivity due to emotional stress which can be avoided given a viable workplace wellness programme. Another lifestyle that needs improvement according to this finding is nutritional status. Study showed that poor meal programs and poor nutrition underlie so many workplace issues: morale, safety, productivity, and the long-term health of the workers and nations with only few workers happy with their meal arrangements (Wanjek, 2005). Too often, food at work is seen as an afterthought or a hindrance by employers and is often a missed opportunity to increase productivity and morale. Canteens, if they exist, routinely offer an unhealthy and unvaried selection. Vending machines are regularly stocked with unhealthy snacks. Local restaurants can be expensive or in short supply. Street foods can be bacteria-laden. Workers sometimes have no time or place to eat or no money to purchase food.



**Table 3.** Effects of stress on workplace performance

Workplace Stress	% effects on workers
On daily productivity	41% lose 15 to 30 minutes of productivity a day
	36% lose one hour or more each day
	23% report their productivity is not affected by stress
On attendance	55% miss one or two days a year to stress
	29% miss three to six days a year
	16% miss more than six days a year
On effectiveness	46% come to work one to four days per year when too stressed to be effective
	30% show up that way five or more days per year
	24% say stress does not influence their effectiveness
Personal tasks on daily productivity	41% lose less than 30 minutes a day to personal tasks
	40% lose 30 minutes a day
	19% lose more than an hour a day

**Source:** ComPsych StressPulse<sup>SM</sup> Report, 2013

Developing nations need to break the cycle of poor nutrition, low productivity and low wages. Some workers have difficulty feeding their own children in these regions and poor child nutrition is dooming for the future workforce. It is important to note how prevalent iron-deficiency is and how cheaply it can be remedied. Low iron, which affects up to half the world's population, is tied to sluggishness and diminished cognitive ability and thus accidents and low productivity (Wanjek, 2005).

Although exercise and fitness adherence has low mean score ratings (figure 1), responses of the participants showed that almost always and sometimes adhere to exercise and fitness programmes were very significant (table 2). It implies that the respondents do engage in moderate fitness exercise for 20 to 60 minutes, three to five times a week. Studies confirmed that physical activity performed in the context of regular occupational, household, and leisure activities can produce benefits similar to those of structured exercise, as long as the frequency, intensity, and duration are sufficient (Issurin, 2010; Joyner & Coyle, 2008; Haskell et al., 2007). The fact that disease prevention practices has low mean score (figure 1) support further analysis output where sometime practicing disease prevention was significant and never practice was very significant (table 2). These connote that the participants' awareness and knowledge of the signs of cancer, heart attack and stroke might be low and their involvement in recommended medical screening regularly is ineffective. This finding does not follow the CDC (2014) submission that in the face of rising healthcare costs, there is growing recognition that preventing disease and maintaining good health pay significant dividends to business. This also signifies that, though, significance effect of disease prevention in the promotion of workplace productivity was reiterated (Riedel, Lynch, Baase, Hymel & Peterson, 2001), industrial workers in developing nations (Kumasi) have being lukewarm in ensuring proactive implementation of disease prevention policy. Reducing one or more risk factors (individual behaviours, genetic predisposition and exposures to environmental conditions) had been adjudged to add years to people's lives and decrease medical cost (Anderko et al., 2012; Roscoe, 2009; Aguirre-Molina, Ramirez & Ramirez, 1993).

The level of health and wellness lifestyles of the workers in private industries in Kumasi needs to be improved upon. Workers' proactive involvement in health and wellness lifestyles should be encouraged, motivated and fostered by employers. Also health promotion programme should be included in the mode of operation of employees as a matter of policy in Ghana. Concrete health and wellness policy implementation strategies through consistent on site assessment, mass media involvement and public prosecution of defaulters are recommended.

### Conflict of Interest

The authors have not declared any conflicts of interest.

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