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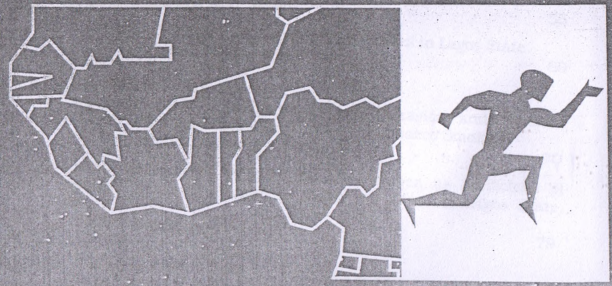

Editorial

This edition of the *West African Journal of Physical and Health Education* (*WAHOPHE*) contains stimulating and illuminating articles in the areas of physical and health education, recreation, sports and dance and related disciplines. I want to place on record the unalloyed support of the current head of department and editor-in-chief of the journal, Professor James A. Ajala and members of the editorial board in making the publication of this edition possible. Special thanks also go to the various contributors for their educative articles and prompt response to the corrected manuscripts.

B.O. Ogundele, PhD
Managing Editor

Content

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Smoking Behaviour and Perceived Health Consequences of Environmental Tobacco Smoke among University Athletes in Nigeria

O.A. Moronkola* and A. Onibokun**

Abstract

This study investigated tobacco smoking behaviour and the perceived health consequences of environmental tobacco smoke by university athletes in Nigeria and to determine whether the philosophy of the Nigerian Universities Games Association (NUGA), resting on the objective of development of the physical, emotional and mental ideals of students, is still in vogue. The descriptive survey research method was used to collect data, through the use of self-developed and validated questionnaire (of r=0.80 reliability) of randomly selected university athletes that participated in the 19th biennial NUGA Games 2002, held between 11 and 21 December 2002, at the University of Ibadan. Out of the 159 respondents, 61 (38.7%) were smokers – consisting of 51 (83.6%) male and 10 (16.4%) female athletes). The reasons given for smoking included the influence of friends, and for relaxation purposes. The response level on knowledge of items about health consequences of tobacco smoking ranged between 65.4% and 91.8%, while the level of knowledge of the health consequences of environmental tobacco smoke ranged between 38.5% and 64.8%. With these findings, we suggest educational intervention programmes to empower athletes say 'No' to smoking and quit smoking. We also suggested the need for sports councils to call health professionals to put in place tobacco smoking cessation programmes, develop IEC

* *Department of Human Kinetics and Health Education, University of Ibadan.*
** *Department of Nursing, University of Ibadan.*

materials on environmental tobacco smoke and peer education programmes targeting university athletes to ensure their wellness.

Introduction

Tobacco smoking is a preventable cause of death in many parts of the world. People smoke voluntarily and involuntarily. Some of those who smoke voluntarily do so to please themselves, succumb to peer pressure, feel a sense of maturity, to be like a role model, to relax, accomplish a task, etc. Tobacco smoke is believed to contain about 4,000 chemicals, mostly carcinogenic, which lead to incidence of cancer and other diseases, especially those relating to the respiratory and circulatory systems (Moronkola, 2003).

The Australian National Health and Medical Research Council (1997) and The United States Environmental Protection Agency (1992) affirmed that environmental tobacco smoke, also known as 'second-hand smoke', originates from a mixture of side stream smoke (smoke diffusing directly from burning tobacco into the atmosphere) and mainstream smoke (smoke exhaled by smokers). However, tobacco smoke present in the surrounding environment contains side stream smoke, which has higher levels of toxic compounds than that found in mainstream smoke.

Tobacco smoking generally leads to physical and social health problems, such as heart disease, cancer, nutritional problems, poor strength, cerebro-vascular diseases, discoloured teeth and lips, offensive body odour, and so on. Leonard (1996) recorded that excess morbidity and mortality from tobacco-related illnesses, including cancer, chronic bronchitis, emphysema and heart diseases are expected to be prevalent in Africa, as tobacco companies are aggressively targeting markets in Africa.

Tobacco smoking is a gateway/recreational drug, and smoking is popular among urban youths in Nigeria. Environmental tobacco smoke (ETS), otherwise known as second-hand tobacco smoke, affects non-smokers in proximity to smokers. There are scientific and medical literature that link ETS to a number of adverse health outcomes, including carcinogenicity, cardiovascular, developmental, and reproductive and childhood respiratory effects.

Although the tobacco industry publicly denies that ETS is dangerous to health, some of its private consultants have, nevertheless, privately acknowledged that this is not so. Some of these privately-conducted internal researches supported the conclusion that passive smoking is dangerous to health. The industry research related to ETS in the 1980s was to develop a new

cigarette that emitted less irritating and less biologically active side stream smoke (Barness et al., 1995).

Athletes must be in good state of health within healthy environment prior to and during competition period for optimum performance. Whether directly or indirectly, the immediate and long term effects of tobacco smoke to athletes, like every other individual, may include tachycardia, high blood pressure, bronchial contraction, carboxyl haemoglobin, eye and nose irritations; and these lower athletic performance. Moronkola, Adesipo and Abayomi (1995) affirmed that since research are lifelong processes, research efforts on athletes are not only essential but must also be highlighted to ensure optimal performance of athletes at national and international competitions. Thus, this study was designed to find out about tobacco smoking behaviour, reasons for smoking, knowledge of the health consequences of tobacco smoking and environmental tobacco smoke among university athletes that participated in the 19th biennial Nigerian Universities Games, held at the University of Ibadan in 2002.

Specifically, the researchers found answers to the following research questions:

1. Will university athletes in Nigeria smoke tobacco?
2. Why do university athletes in Nigeria smoke?
3. Do university athletes in Nigeria have knowledge of the health consequences of tobacco smoking?
4. What are the perceived health effects of environmental tobacco smoke on university athletes in Nigeria?

Methodology

Population: The study population includes all registered athletes at the 19th biennial Nigerian Universities Games Association held from 11-21 of December 2002, at the University of Ibadan, Nigeria.

Research design: The descriptive survey design was adopted for the study.

Research instrument: A self-developed questionnaire, validated by experts in health education and promotion, nursing and medicine, with a test retest reliability of 0.80, served as the research instrument.

Sampling techniques
The simple random sampling technique was used to recruit study participants among the athletes during the 2002 NUGA competition. One hundred and fifty-nine athletes (159) eventually constituted the sample size.

Data collection
Contingent leaders, captains and sport coaches of various institutions served as research assistants. They helped to administer the copies of the questionnaire on their athletes; some athletes were willing to wait and fill the questionnaire and promptly return same.

Data analysis
Copies of the questionnaire administered were collated and found useable for data analysis. Frequency counts of items in the questionnaire for each respondent were done and the data were described through the use of percentage.

Results
Demographic data: Out of the 159 respondents, 90 (56.6%) were male athletes, while 69 (43.4%) were female. With regard to age brackets, 4 (2.5%) of the athletes were less than 18 years old, 60 (37.7%) were 18-22 years old, 69 (43.4%) were 23-27 years old, 8 (5%) were 28-32 years old, 4 (2.5%) were 33-37 years old, 6 (3.8%) were 38-42 years old, while 8 (5%) were 43 years old and above. It is pertinent to say that athletes from 23 universities across the country participated in the study. Also, 25 (15.7%) were in 100 level, 46 (28.9%) in 200 level, 50 (31.4%) in 300 level, 35 (22.0%) in 400 level and 3 (1.9%) in 500 level.

Research question 1: Will university athletes in Nigeria smoke tobacco? Out of 150 respondents, 61 (38.7% – i.e., 51 (83.6%) male and 10 (16.4%) female) respondents reported that they smoked tobacco products within the last three months. Also, as to brands of cigarettes, 18 (29.5%) smoked Rothmans®, 8 (13.1%) Benson and Hedges®, 2 (3.3%) Moore®, 3 (4.9%) Three Rings®, 6 (9.8%) Aspen®, 3 (4.9%) Camel®, 20 (32.8%) Marlboro®, while 1 (1.6%) smoked other types of cigarettes. This finding was not in line with that of Leonard (1996), with 174 respondents, in which only 42 (24.1%) of the respondents were smokers.

In a study by Torabi, Johnson and Crowe (2001), a higher percentage of female students smoked cigarette than their male counterparts.

Research question 2: What were the reasons for smoking by university athletes in Nigeria?

Table 1: Reasons university athletes in Nigeria smoke (n=61)

Items (reason)	Percentage
To show that maturity	5 (8.2%)
To imitate a role model	-
Because members of my family smoke	2 (3.3%)
Because my friends(s) smoke	25 (40.9%)
To avoid boredom, loneliness	7 (11.5%)
To relax	20 (32.8%)
To cope with stress	17 (27.9%)

NB: Respondents could give more than one reason

In table 1, respondents gave different reasons why they smoked. Among the 61 respondents who were smokers, 40.9% smoked because their friends did so, 32.8% to relax, 27.9% to cope with stress, 11.5% to avoid boredom and loneliness, 8.2% to show they were mature and 3.3% smoked because members of their families smoked. However, none smoked to imitate a role model.

Ndom and Adelekan (1996) reported that correlates of drinking, cannabis and tobacco smoking among undergraduates in Ilorin include peer influence. Senah (1980) also reported that reasons given by students for abusing drugs included the desire to get along with friends (21%), to induce a feeling of well-being (99.0%) and to satisfy curiosity (4.98%), while Moronkola and Onuoha (1997) reported that reasons given for smoking by University of Ibadan student smokers included relaxation (29.58%), as a feeling of well-being (9.01%) and curiosity (4.98%).

Research question 3: Do university athletes in Nigeria have knowledge of health consequences of tobacco smoking?

Table 2: Knowledge of health consequences of tobacco smoking by university athletes in Nigeria (n=159)

Item	Knowledgeable	Not knowledgeable
Tobacco is a silent killer	146 (91.8%)	13 (8.2%)
Tobacco smokers usually have poor appetite	114 (71.7%)	45 (28.3%)
Tobacco smokers are likely to have oral health problems	128 (80.5%)	31 (19.5%)
Smokers usually have poor body odour (which affects social health)	117 (73.6%)	42 (26.4%)
Tobacco smokers are susceptible to obstructive pulmonary diseases	115 (72.2%)	44 (27.7%)
Tobacco smokers are more likely to consume Indian hemp later in life	104 (65.4%)	55 (34.6%)

In table 2, with the exception of the knowledge about the fact that tobacco smokers are more likely to consume Indian hemp later in life (which was as high as 65.4%), more than 70.0% of the respondents had knowledge of other salient health consequences of tobacco smoking, such as those relating to the lethal nature of tobacco, poor appetite and obstructive pulmonary diseases. Also Corbin et al. (2002) affirmed that unhealthy effects of smoking include all forms of cancer (kidney, oesophagus, pancreas, leukaemia, etc), atherosclerosis, type II diabetes, stomach ulcers, chronic bronchitis and emphysema, pregnancy complications and decrease in lifespan.

This finding is consistent with findings of Leonard (1996), Moronkola (1995), Pela (1989), Senah (1980), Oviasu (1976) and Cockerham (1975) that a significant proportion of smokers have knowledge of the health consequences of tobacco smoking. Also, The Royal College of Physicians (1992) recorded that many health problems develop quickly in young people who smoke.

Research question 4: What are the perceived health effects of environmental tobacco smoke by university athletes in Nigeria?

In table 3, 62.3% of the respondents had knowledge of health effects of (ETS) on the upper respiratory tract, while 64.2% knew that ETS can be linked with the increase in the risk of chronic respiratory disease. The California Environmental Protection Agency (1997) noted that authoritative investigations and reviews over decades provide substantial scientific evidence linking exposures to ETS to a number of adverse health outcomes.

Also, Kehiro Kawachi of the Harvard School of Public Health, according to Josefson (1997), revealed that regular exposure to

second-hand smoke nearly doubles the risk of coronary artery diseases. Passive smoking is also believed to cause heart damage in the same way as primary smoking, by causing vascular endothelia damage, lowering high density lipoprotein cholesterol and increasing blood viscosity. The study also showed strong association between second-hand smoke and heart disease.

Hackshow, Law and Wald (1997) and Law, Morris and Wald (1997) documented that ETS is associated with mild physiological symptoms, e.g., eye, nose and throat irritations, cough, chest discomfort, lung cancer and ischemic heart diseases. Corbin, et al. (2002) affirmed that non-smokers who must breathe second-hand smoke are, in fact, 'involuntary or passive' smokers and can suffer serious health problems, especially if they are repeatedly exposed to tobacco smoke over a long period of time. Passive smoking has also been found to increase the risk of heart attacks, causing 35,000-40,000 deaths per year in the United States.

Table 3: Perception of the health effects of environmental tobacco smoke by university athletes in Nigeria (N=159)

Item	Agree	Not sure	Disagree
People exposed to environmental tobacco smoke (tobacco smoke in the area one stays/waits) are likely to suffer from asthma than the non-exposed.	103 (64.8%)	40 (25.2%)	16 (10.1%)
Environmental tobacco smoke may increase the risk of death from all causes	99 (62.3%)	34 (21.4%)	26 (16.4%)
Exposure to environmental tobacco smoke irritates the eyes and upper respiratory tract.	99 (62.3%)	29 (18.2%)	31 (19.5%)
The risk of heart attack or death from coronary heart disease is higher in non-smokers who stay with smokers than those who do not.	77 (48.4%)	51 (32.1%)	31 (19.5%)
Cigarette smoking is an environmental risk factor for chronic obstructive pulmonary diseases (COPD).	88 (55.3%)	35 (22.0%)	36 (22.6%)
Passive smoking increases the risk of acute respiratory illness.	93 (58.5%)	40 (25.2%)	26 (16.4%)
Breathing other people's smoke is also an important and avoidable cause of ischemic heart disease	93 (58.5)	37 (23.3%)	29 (18.2%)
Breathing other people's tobacco smoke is associated with an increase in risk of chronic respiratory disease.	102 (64.2%)	9 (5.7%)	48 (30.2%)

Conclusion and Recommendations

Tobacco smoke, in whatever form, is dangerous to health and athletic performance, as it impairs the circulatory and respiratory systems of the body, which are vital to athletic performance. In this study, 61 (38.7%) of the 159 sampled respondents were smokers. Also, there were more male (83.6%) smokers than female (16.4%) smokers.

Various reasons for smoking, according to the respondents, included: peer pressure and the need to relax. It is significant to note that none of the smokers was motivated to smoke by a role model; hence, these athletes were able to choose non-smoking role models or imitate health promoting athletic traits in their models.

The various responses to questionnaire items depicting levels of knowledge of health consequences of tobacco smoking ranged from 91.8% to 65.4%, while out of the eight items on perception of health effects of environmental tobacco smoke, participants scored between 62.3% and 64.8% on only four items, and others less than 60.8%. This revealed the extent of respondents' level of knowledge of the health effects of environmental tobacco smoke.

Based on the findings in this study, we suggest tobacco educational intervention programmes that would empower sport coaches, health workers/educators and psychologists on how to help athletes who smoke overcome smoking habits. Sport councils in universities also need to seek the services of health professionals to put in place tobacco cessation programmes, develop IEC materials on environmental tobacco smoke and peer education programmes, with the aim of ensuring the well-being of university athletes. When these recommendations are given due consideration, the development of the physical, emotional and mental ideals of students, which NUGA set for itself, will be achievable.

References

Australian National Health and Medical Research Council, (1997). *The Health Effects of Passive Smoking.* Caberra: Australian Government Publishing Service.

Barness, D.E., Hanauer, P., Slade, J., Bero, L.A.G (1995). Environmental tobacco smokes. *The Journal of the American Medical Association* 274: 248-253.

California Environmental Protection Agency (1997). Health effects of exposure to environmental tobacco smoke. Final Report, California: Office of Environmental Health Hazard Assessment.

Corbin, C.B., Lindsey, R., Welk, G.J. and Corbin, W.R. (2002). *Concepts of Fitness and Wellness* (4th ed) Boston: McGRaw Hill.

Cockerhan, W.C. (1975). Drinking attitudes and practices among Wind River reservation Indian youths. *Journal of Studies on Alcohol* 36(3): 321-326.

Hackshaw, A.K., Law, M.R. and Wald, N.J. (1997). The accumulated evidence on lung cancer and environmental tobacco smoke. *British Medical Journal* 7114(3): 980-988.

Josefson, D. (1997). Passive smoking doubles risk of heart diseases. *British Medical Journal* 314(7094). http://194. 216.217.166/bmj/archive.

Law, M.R., Morris, J.K, and Wald, N.J. (1997). Environmental tobacco smoke exposure and ischaemic heart disease: An evaluation of the evidence. *British Medical Journal* 114(315): 730-800.

Leonard, L. (1996). Cigarette smoking and perceptions about smoking and health in Chad. *East African Medical Journal* 73(8): 509-512.

Moronkola, O.A., Adesipo, T.A. and Abayomi, B.O. (1995). Status of research efforts on Nigerian athletes' health issues. In: V.C. Igbanugo (ed) *Research in Health Physical Education Sport and Dance.* Proceedings of the 10th Annual and Anniversary conference of Nigeria Association of Sports Science and Medicine.

Moronkola, O.A. and Onuoha, P.N. (1997). Knowledge about the effects of smoking and awareness of health warnings on cigarette advertisements among male university student smokers. *Nigerian School Health Journal* 9(1&2): 39-45.

Moronkola, O.A. (1995). Knowledge, attitude and abuse of psychoactive substances among selected university students Unpublished PhD thesis, University of Ibadan.

Moronkola, O.A. (2003). *Essays on issues in health* Ibadan: Royal People (Nigeria) Ltd.

Ndom, R.J.E. and Adelekan, M.L. (1996). Psychosocial correlates of substance use among undergraduates in Ilorin University, Nigeria. *East African Medical Journal* 73(8): 54-547.

Oviasu, V.O. (1976). The abuse of cannabis on Nigeria. *Nigerian Medical Journal* 6(3): 359-366.

Pela, O.A. (1989). Patterns of adolescent psychoactive substance and abuse in Benin City, Nigeria. *Adolescence* XXIV: 569-574.

Royal College of Physicians (1992). Smoking and the young London. al College of Physician.

Senah, K.A. (1980). A study on problems associated with the rise of gs and drug education. United Nations Educational Scientific and tural Organization.

Torabi, M.R., Johnson, K.M. and Crowe, J.W. (2001). Tobacco uses ng Russian students compared to United State counterparts. *Journal of International Council for Health, Physical Education, Recreation, Sport Dance* 38(1): 49-51.

United States Environmental Protection Agency (1992). *Respiratory lth Effects of Passive Smoking: Lung Cancer and Other Diseases.* hington, DC: Author.