

## ATTITUDES OF UNDERGRADUATE STUDENTS TOWARDS THE SUBJECT OF EXERCISE PHYSIOLOGY IN NIGERIA UNIVERSITIES

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### ABSTRACT

This study examines factors influencing attitude of undergraduate students towards the subject of Exercise Physiology in Nigeria universities. The population comprised all students of Departments of Physical and Health Education in Nigeria universities. Four universities were sampled through a cluster sampling method, and a total of 400 respondents were randomly selected to participate in the study. The descriptive and inferential statistics were employed to analyse the personal data and the hypotheses formulated at  $\alpha=0.05$  level of significance. The findings revealed that factors such as, inadequate qualified personnel, inadequate facilities and equipment, as well as lack of scholarship/financial aid influence the attitude of undergraduate students towards the subject of Exercise Physiology in Nigeria universities. It was recommended among others that financial aid/scholarship grant be given to the students who performed well in the subject of Exercise Physiology as a motivation to encourage them develop positive attitude towards the subject.

**KEYWORDS:** Attitude, Undergraduate Students, Exercise Physiology

### INTRODUCTION

Physical education as a body of knowledge has been defined variously by experts and scholars in the field of study, however a more concise and most acceptable of the lots is the one that sees it as an integral part of the total educational process that uses well defined and selected physical activities such as games, dance, sports and calisthenics to pursue and achieve the goals of total education. The teaching and practice of physical education as a body of knowledge have moved away from the concept of the general practitioner to that of specialist. The discipline is continually growing and diversifying and prominent among its branches is adapted physical education, Biomechanics, sports organization and administration, sociology of sports, sports psychology and exercise physiology that is the focus of discussion in this paper.

Anatomy and physiology are divisions of biological studies of living things. While anatomy is the scientific study of the parts of the living organism and their relationship to each other, physiology is the scientific study of the way in which the parts of the body accomplish their functions. The comprehension and in-depth knowledge of these disciplines allow someone to understand how and why the body performs its functions and also serve as the foundation knowledge for the prevention and treatment of illness. Bakinde, (2003)

Physiology becomes more complex when it is applied to the exercising body as seen in exercise physiology fundamentals. Exercise is not synonymous with physical activity but a sub-category of physical activity. It is a term used to depict structured forms of physical activity, usually for reasons of improving and maintaining general fitness of the body. Exercise physiology is therefore a sub-division of general physiology that is concerned with the description and explanation of functional changes brought on someone by single or repeated bouts of exercise with the sole aim of enhancing and maintaining human functional capacities. According to Astrand and Rodahl (2006) a single bout of exercise

is called acute while repeated bouts over several weeks is called chronic. With repeated bouts of exercise, an adaptation takes place. These adaptive responses are the vehicles for general health and fitness.

Professional preparation in this area is very involving, technical and scientific. Also specialization involves researches under scientific aspect which are largely experimental. The teaching and practice in this area are directed towards enhancing the general health, and fitness and improvement in physical performance. These major focuses of exercise physiology have not been significantly realized in Nigeria because of the following identified issues and problems that would be discussed in this paper. This research is therefore concerned to investigate on the current issues and problems in teaching and practice of exercise physiology in the Nigerian undergraduate university.

### **Research Questions**

- Do inadequate qualified personnel have any influence on the attitude of undergraduate students towards the subject of exercise physiology in the Nigeria universities?
- Do inadequate facilities have any influence on the attitude of undergraduate students towards the subject of exercise physiology in the Nigeria universities?
- Does inadequate equipment have any influence on the attitude of undergraduate students towards the subject of exercise physiology in the Nigeria universities?
- Does inadequate funding/ lack of scholarship have any influence on the attitude of undergraduate students towards the subject of exercise physiology in the Nigeria universities?

### **Research Hypotheses**

- Inadequate qualified personnel will not significantly influence attitude of undergraduate students towards the subject of exercise physiology in the Nigeria universities?
- Inadequate facilities will not significantly influence attitude of undergraduate students towards the subject of exercise physiology in the Nigeria universities?
- Inadequate equipment will not significantly influence attitude of undergraduate students towards the subject of exercise physiology in the Nigeria universities?
- Inadequate funding/lack of scholarship will not significantly influence attitude of undergraduate students towards the subject of exercise physiology in the Nigeria universities?

### **METHODOLOGY**

A cross-sectional survey study covered all Human Kinetics and Health Education students in the selected Nigeria Universities. Four universities [Bayero University Kano (BUK), Ibrahim Badamosi Babangida University Lapai (IBBU), University of Ilorin (Unilorin) and University of Port Harcourt (Unipor)] were randomly selected from the clusters of the universities into major geographical planes in Nigeria, that is, as demarcated by the rivers Niger and Benue. All universities with Department of Physical and Health Education or its equivalent were chosen, and a total of 100 were randomly selected, which means 100 each were from each of the 4 Institutions, regardless of gender, age, and religion affiliation. A structured validated questionnaire which was tested for reliability with coefficient 0.89r was employed to gather data for the study, with the help of 4 trained research assistants. All hypotheses were tested using SAS of Chi-square at 0.05 alpha level of significant.

## RESULTS AND DISCUSSIONS OF FINDINGS

Table 1: Personal Data

Variable	No (%)
<b>Institution</b>	
BUK	100(25%)
IBBU	100(25%)
Unilorin	100(25%)
Uniport	100(25%)
<b>Gender</b>	
Male	188(47%)
Female	212(53%)
<b>Age</b>	
≤ 20years	99(24.8%)
21-30years	158(39.5%)
≥ 31years	143(35.7%)
<b>Religion</b>	
Christianity	163(40.8%)
Islam	198(49.5%)
Others	39(9.7%)
<b>Total</b>	<b>400(100%)</b>

Table 1 shows that the respondents were drawn equally from the 4 randomly chosen institutions, thus; 100(25%) each. Male respondents are 188(47%) and female are 212(53%), the ages of respondents are as follows: 99(24.8%) are less than or equal to 20years of age, 159(39.5%) are within 21 – 30 years while 143(35.7%) are between ages 31 years and above. On the religion affiliation; 163(40.8%) are Christians, 198(49.5%) are Moslems and 39(9.7%) belong to other religions.

Table 2: Chi-Square Results on Factors Influencing Attitudes of Undergraduates towards the Subject of Exercise Physiology in Nigeria Universities N=400

S/N	Variable	SA	A	D	SD	Calc. X <sup>2</sup>	df	Crt. Val.	Remarks
1	Ho.1; Inadequate qualified personnel	123	217	32	28	113.2	12	21.03	Rejected
2		81	212	57	50				
3		87	139	104	70				
4		136	187	45	32				
5		118	178	49	55				
6	Ho.2: Inadequate facilities	89	181	90	40	49.89	12	21.03	Rejected
7		120	144	60	76				
8		138	133	97	32				
9		58	190	117	35				
10		51	207	47	95				
11	Ho.3: Inadequate equipment	91	150	122	37	39.91	12	21.03	Rejected
12		67	179	106	48				
13		107	161	50	82				
14		119	141	98	42				
15		74	214	37	75				
16	Ho4: Lack of financial aid/scholarship	96	221	36	47	72.22	12	21.03	Rejected
17		79	186	72	63				
18		108	152	83	57				
19		51	169	61	119				
20		106	177	84	33				

P ≤ 0.05

Table 2 shows the Chi-square results as follows; In Hypothesis 1, the calculated value of 113.2 is greater than the critical value of 21.03 at df 12 and 0.05 level of significance. This proves the Hypothesis rejected, that is, inadequate qualified personnel will significantly influence the attitude of undergraduate students towards the subject of Exercise Physiology in Nigeria universities. This is in agreement with the statement that, one of the causes of shortage of personnel specializing in exercise physiology is the nature of the course. Qualifications for the exercise physiologist include a strong background in the biological sciences and a sound understanding of basic physiologist principles. According to Bucher and Thaxton (2010) in addition to an undergraduate background, graduate work with specialization in exercise physiology is required for anyone desiring to specialize in the field of study. Many students see the course as science oriented and perceived it difficult even though, it is an unavoidable area at the undergraduate level. This perception of exercise physiology as a difficult discipline according to Okuneye, Akeredolu, Agbonjimi & Amusa (2001) is a strong factor that hinder many students from specializing in it despite the believe that it is an interesting area to specialize. The dearth of qualified personnel is taking its tolls on the development of this discipline thereby affecting the quality of services rendered at both the school system and the numerous fitness centre's that dotted our big cities without adequate qualified manpower.

On Hypothesis 2; the calculated value of 48.89 is greater than critical value of 21.03 at df 12 and 0.05 level of significance, thus, rejecting the hypothetical statement, which means inadequate facilities will significantly influence attitude of undergraduate students towards the subject of Exercise Physiology in Nigeria universities. This finding corroborates a statement that, the passport to a successful exercise physiology programme is the availability of suitable facilities and equipment. Lack of sufficient facilities and equipment is one of the reasons why the teaching and practice of exercise physiology are interesting. According to Nwoegbu (2007) adequate space for the performance of the multifarious physical education activities should be provided and apparatus is one of the most important ingredients of modern physical education lesson and there is no step in physical education lesson that does not require the use of one apparatus or another.

In Hypothesis 3; calculated value of 39.91 is greater than the critical value of 21.03 at df 12 and 0.05 level of significance. This finding is supported by assertion of Amusa (1987) that, Nigeria is ill-equipped in the area of preparing people for sports medicine which is an umbrella for exercise physiology. This same statement is still valid today in respect of provision of adequate facilities and equipment. Apart from the fine set-up of an exercise physiology laboratory at the National Institute for Sports (NIS) in Lagos, university of Ibadan exercise physiology laboratory lab in Human Kinetics and Health Education department and few physiotherapy clinics in the teaching Hospitals, all other exercise physiology laboratories either privately or government owned are far cry from the adequate. The findings of Abbas (1997) and Okuneye et al (2001) buttress the assertion of inadequate facilities and equipment as stumbling block for appreciable progress in the teaching and practice of exercise physiology. Generally people believe that exercise physiology could be interesting with adequate teaching and practicing gadgets and aids.

In Hypothesis 4; the calculated value of 72.22 is greater than critical value of 21.03 at df 12 and 0.05 alpha level of significance to reject the hypothetical statement, meaning that, lack of scholarship/financial aid will significantly influence attitude of undergraduate towards the subject of Exercise Physiology in Nigeria universities. This finding is in line with the general saying that, money is the vehicle for progress in virtually all facets of human endeavors. It is very crucial to the provision of facilities, equipment, supplies and even in carrying out researches in the teaching and practice of exercise physiology. Lack of sufficient fund has led to non-availability of competent personnel in some fitness centres in the country and procurement of adequate facilities and equipment. According to Nwankwo (1997) researches in exercise physiology are hampered with financial constraints, among others. Amusa (1987) also posited that adequate funding is imperative to the procurement of necessary equipment and training and recruitment of appropriate personnel.

For improvement in the source of funding exercise physiology, yearly budget should be prepared showing the allocation of money for each activity especially in the school system. No matter how meager it may be, it should be made from the same source from which other subjects derived their financial support. By this method, a regular source of fund for the provision of necessary facilities and equipment and for even researches will be ensured.

## CONCLUSIONS AND RECOMMENDATIONS

This paper has dealt extensively with the various factors influencing undergraduate students towards the subject of exercise physiology in Nigeria universities. The factors discovered include inadequate qualified personnel, inadequate facilities and equipment and the issue of lack of scholarship/ financial aid to students.

The recommendations for this study are as follows;

Undergraduate students in this field should create interest in the subject, so as to specialize in the subject area later to increase the number of qualified personnel in the area of Exercise Physiology Only qualified professionals in the area of Exercise Physiology should be used to teach the course in our universities to fascinate the interest of students to the subject. The institutions should provide more facilities and equipment for Exercise Physiology for good teaching and learning to take place in the subject matter

The school should encourage students to offer and specialize in Exercise Physiology by provision of scholarship grants and financial aids to students who perform well in the subject.

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