



Factors Affecting Study of Medical Physiology amongst Undergraduate Medical Laboratory Students.

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ABSTRACT

Background: Medical Physiology is an interesting and important course to study at undergraduate and post graduate levels. Medical Physiology is a course that set the space for medical students. The aim of this study is to ascertain the likely factors affecting study of medical physiology amongst undergraduate medical laboratory students.

Methods: This is a cross-sectional study carried out among students of medical laboratory student's department. A total of 98 students participated in the study, (male = 53 and female = 45) with age between 16 to 40 years. The participated students were drawn from 100 level to 400 level. The study lasted for six weeks and well-structured questionnaires were distributed to them and one questionnaire per student to fill independently and thereafter, return it to the researcher. Statistical analysis of data was done using Microsoft Excel. P value < 0.05 was considered significant for data

Results: The research shows that 98.97% of the students actually studied medical physiology and 97.62 of the respondents passed the course. 95.06% of the students passed medical physiology at first sitting while 2.47% passed at second sitting and 2.47% never pass the course at all. 75% of the respondents liked medical physiology and 25% never liked the course. Those students who never liked medical physiology give the following reasons: Insufficient number of physiology lecturers = 5.41%; Topics not properly taught = 24.32%; Too many topics to cover = 44.60%; Physiology course is too medical base = 6.76%; It has no relevance to medical laboratory science = 4.05% and Physiology course is too difficult to understand = 14.86%. Most of the students (58.65%) were faced with different challenges including too many other courses offered alongside physiology course.

Conclusions: Medical Physiology is a course that set the space for medical students and other health related students and this could be the reason why greater percentage of the respondents studied and passed medical physiology at one sitting. Challenges encountered by students while studying medical physiology were: Poor lecture theatre, no practical session, too short semester calendar, and too many other courses alongside medical physiology.

INTRODUCTION

Medical Physiology is an interesting and important course to study at undergraduate and post graduate levels and apart from MBBS students and core students from Human or Medical Physiology Department, other health related departments also offer the course. Medical Physiology is a course that set the space for medical students. Medical Physiology is a gateway to study medicine and surgery in all universities and colleges of medicine across the globe. However, at post graduate level, physiology is broken down into the following specialty areas: Reproductive physiology, Endocrine physiology, Environmental physiology, Respiratory physiology, Cardiovascular Physiology, Renal Physiology, Blood and body fluid physiology, Gastrointestinal and Nutritional physiology, Cell physiology and Molecular physiology, Neurophysiology and Special Senses, Exercise and Sport Physiology. These areas are vital to every human and therefore it should be fully taught in higher institutions.

Medical laboratory science students taking medical physiology as a course are not out of place because medical physiology introduces them to certain laboratory procedures such as clothing and bleeding time. Medical physiology is also useful to other medical specialties such as cardiologist, pulmonologist, endocrinologist, neurologist and nephrologist. Clinical laboratory sciences (also known as medical technology) are a biology/chemistry-based bachelor's degree that prepares students for exciting, challenging and dynamic careers in places such as hospital labs and clinics, forensic labs, veterinary clinics, industrial research labs and molecular biotechnology (1). For these reasons, everybody in the medical field including medical laboratory science students need the knowledge of medical physiology to sail through his or her specialty or profession. Some students may not actually do well in medical physiology due to certain challenges of psychosocial factors and may affect the student's level of performance. Low academic performance was revealed in Henderson repository nursing research as caused by distraction from family events, absence of group studies and lack of motivation from awards, scholarships and teachers (2). Again, a research carried out on factors affecting self-regulated learning in medical students, revealed the

following factors: family, peers, instructors, educational environments and personal characteristics of the students (3).

MATERIAL AND METHODS

The study was a cross-sectional study involving 53 male and 45 female students of medical laboratory science department of Rivers State University. The participated students were drawn from 100 level to 400 level. The study lasted for a period of 6 weeks and well-structured questionnaires were distributed to them and one questionnaire was distributed per student to fill independently and thereafter, return it to the researcher. Statistical analysis of data was done using Microsoft Excel. P value < 0.05 was considered significant for data

RESULTS

The research shows that 98.97% of the students actually studied medical physiology (Table 1) and 97.62 of the respondents passed the course (Table 2). 95.06% of the students passed medical physiology at first sitting while 2.47% passed at second sitting and 2.47% never pass the course at all (Table 6). 75% of the respondents liked medical physiology and 25% never liked the course (Table 3). Those students who never liked medical physiology gave the following reasons: Insufficient number of physiology lecturers = 5.41%; Topics not properly taught = 24.32%; Too many topics to cover = 44.60%; Physiology course is too medical base = 6.76%; It has no relevance to medical laboratory science = 4.05% and Physiology course is too difficult to understand = 14.86% (Table 4). Most of the students (58.65%) were face with different challenges including too many other courses offered alongside physiology course. The study also revealed various challenges encountered by students while studying medical physiology are: Poor lecture theatre = 1.50%; No practical session = 2.26%; Insufficient practical session = 18.05%; Atmosphere not conducive = 5.26%; Too short semester calendar = 14.29%; and too many other courses alongside medical physiology = 58.65% (Table 5).

Table 1: Students who have studied Medical Physiology

YES	NO
96	1
98.97%	1.03%

Table 2: Students who passed Medical Physiology

Passed	Failed
82	2
97.62%	2.38%

Table 3: Students who like Medical Physiology

Like	Do not like
72	24
75%	25%

Table 4: Reason for students who did not like Medical Physiology

INNOCENT NUMBER OF PHYSIOLOGY LECTURERS	TOPICS NOT PROPERLY TAUGHT	TOO MANY TOPICS TO COVER	PHYSIOLOGY SUBJECT IS TOO MEDICAL BASE	IT HAS NO RELEVANCE TO MED LAB SCIENCE	PHYSIOLOGY SUBJECT IS TOO DIFFICULT TO UNDERSTAND
4	18	33	5	3	11
5.41%	24.32%	44.60%	6.76%	4.05	14.86%

Table 5: Challenges students encountered why studying Medical Physiology

NO GOOD LECTURER CLASSROOMS	NO PRACTICAL CLASSES	INSUFFICIENT PRACTICAL SESSIONS	ATMOSPHERE, NOT CONDUCIVE	TOO SHORT SEMESTER CALENDAR	TOO MANY OTHER COURSES OFFERED ALONGSIDE PHYSIOLOGY
2	3	24	7	19	78
1.503%	2.26%	18.05%	5.26%	14.29%	58.65%

Table 6: Students who passed Medical Physiology at various sittings

FIRST	SECOND	THIRD	NEVER
77	2	0	2
95.06%	2.47%		2.47%

DISCUSSION

Medical Physiology is one of the courses that must be passed by undergraduate medical students. Medical Physiology is a course that set the space for medical students and other health related students. The study shows that 75% of the respondents like medical physiology and 25% never liked the course (Table 3). This might attest to the fact that medical physiology is an important course and serve as a gateway to medical and health professions.

The research shows that 98.97% of the students actually studied medical physiology (Table 1) and 97.62 of the respondents passed the course (Table 2) while 95.06% of the students passed medical physiology at first sitting, 2.47% passed at second sitting and 2.47% never passed the course at all (Table 6). The high percentage of pass shows that medical physiology as a course is well taught, easy to understand, and is pivotal to medical education. Also, this greater percentage pass might indicate the love people have for our health sector and need to be conscious about our health situations. Medical Physiology is a subject that talks about the functional status of our body system and the environment as related to health. Therefore, so many people who studied medical physiology are well grounded with health knowledge and they in turn create awareness in

their various communities and at places of work. This could be the reason why greater percentage of the students passed medical physiology at first sitting. However, it is for this reason that medical laboratory science students liked, offered and passed medical physiology course. This study is in consonant with the study by (4) who revealed that medical laboratory science students have greater percentage of students who like clinical anatomy and also passed the course at one sitting.

The study revealed that 25% of those students who never like medical physiology course (Table 3) gave the following reasons why they never liked the course and these were: Insufficient number of physiology lecturers = 5.41%; Topics not properly taught = 24.32%; Too many topics to cover = 44.60%; Physiology course is too medically base = 6.76%; It has no relevance to medical laboratory science = 4.05% and Physiology course is too difficult to understand = 14.86% (Table 4).

The study also revealed various challenges encountered by students while studying medical physiology and these challenges are: Poor lecture theatre, insufficient practical, atmosphere not conducive for learning process, too short semester calendar, and too many other courses alongside medical physiology (Table 5). Challenges are situations or conditions that any person may encounter

while undertaking or carrying out any assignment. These challenges encountered by medical laboratory science students are challenges which can be rectified by the authority concern.

CONCLUSION

Medical Physiology is a course that set the space for medical students and other health related students and this could be the reason why greater percentage of the respondents likes medical physiology. Greater percentage of the respondents studied and passed medical physiology at one sitting.

Various challenges are encountered by students while studying medical physiology and these challenges are: Poor lecture theatre, no practical session, atmosphere not conducive for learning, too short semester calendar, and too many other courses alongside medical physiology. Challenges are situations or conditions that any person may encounter while undertaking or carrying out any assignment and these challenges encountered by medical laboratory science students is not out of place and such challenges can be handled by the authority concern.

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DECLARATIONS

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