A SURVEY OF ATTITUDE OF LECTURERS AND STUDENTS OF ANATOMY TOWARDS MAKING ANATOMY CAREER FRIENDLY IN NIGERIA

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ABSTRACT

Background: *Anatomy graduates in Nigeria face a lot of career uncertainties with a narrow career prospect and consequent employment challenges in a country where unemployment is high.*

Method: A total of 258 structured questionnaires were administered to lecturers and students attending the 10th annual conference of Society for Experimental and Clinical Anatomy (SECAN) held in Enugu, South East Nigeria, out of which 248 returned the questionnaires and were included in the study.

Results: *This showed that 73.4% of the respondents believed that the present anatomy curriculum is not career-friendly, while 88.7% suggested that it should be restructured to make it more career-friendly. A total of 62.9% of the respondents were of the view that students do not spend enough time on practical sessions and 100% of the respondents agreed that students are not sent out for industrial training or clinical experience in related areas. Majority (91.9%) of the respondents were of the view that this will motivate and further improve the quality of anatomy graduates. Only 23.6% of the students believed that there is career satisfaction amongst anatomy students while 95.5% of the lecturers believed that there is career satisfaction amongst anatomy lecturers. One hundred and four (41.9%) respondents felt that failure rate in their school was high, 96 (38.7%) felt it was moderate and only 48 (19.4%) felt it was low. Majority of the respondents also believed that subspecialties like radiology, forensic anatomy, embryology, teratology, embalmment, and anatomical techniques should be introduced.*

Conclusion: *The present anatomy curriculum needs urgent review and major restructuring to make it career friendly as shown by the attitudes of respondents in this study. There is need to introduce clinical experience and industrial training in relevant areas to motivate students and improve the learning process.*

Keywords: *Anatomy, anatomy education, anatomy career, students' attitude*

INTRODUCTION

Anatomy is the bedrock of medicine and now has also evolved as a specialized area of science that can stand on its own and not just an appendage of a medical school for the training of medical students. It becomes imperative for medical schools to re-evaluate their own curriculum in terms of what the students need to learn. A resource center should also be provided to give adequate skills to both the students and lecturers[1]. There is a renewed call by scientist for questionnaire-based input from students, anatomist, and clinicians to help restructure anatomy[2]. Consideration of various teaching methods must form the basis for meaningful conclusions with the aim of improving the curriculum in anatomy[3] .The student should be exposed to various state of the art modalities so that the future physician will appreciate the logic behind understanding living and clinical anatomy[1]. Focus on anatomy should also gradually shift from Anatomy for medical students to Anatomy as a career course since Anatomy itself is relevant to the majority, if not all, healthcare professions[4].

There is need therefore to be careful in planning students directed anatomy objectives and how they are going to be delivered. This is particularly important as the

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current pressure to reduce the hours devoted to learning Anatomy may even complicate the entire planning[5,6]. In the past, human anatomy was an academic and purely descriptive science, concerned primarily with identifying and naming body structures. Although dissection and description form the basis of anatomy, the importance of human anatomy today is in its functional approach and clinical applications. Due to challenges such as increasing number of new medical institutions particularly in economically developing nations[7,8] and shortage of cadavers[9], medical faculties are constrained and are looking at options of eliminating aspects of dissection of gross anatomy in favour of other teaching modalities.

Human anatomy is a practical applied science that provides the foundation for understanding physical performance and body health. This implies that learning in an integrated way using various modalities available is considered ideal[10] and this is why the American Association of Anatomists holds a one-day workshop on teaching of aspects of anatomy every year, where new evaluations are debated and adopted[2]. Therefore, learning methods must be re-evaluated to include small group sessions, surface anatomy, and clinical exposure and industrial training at the earliest opportunity. We undertook this study to evaluate the opinions of anatomy teachers and students on career improvement and satisfaction in Nigerian medical colleges.

Materials and method

A total of 258 questionnaires were given out to 42 anatomy lecturers and 216 anatomy students attending the 10th Annual Conference of Society for Experimental and Clinical Anatomy held in Enugu, South East Nigeria, after a pretest and modification using 15 Anatomy students from the University of Uyo. Out of the 258 questionnaire, 248 were returned and analyzed statistically using Primer of biostatistics software (version 3.01)

Results

In this study of attitude of students and lecturers towards making anatomy career friendly in Nigeria, a total 248 respondents were used out of which, 40 were lecturers and 208 were students of anatomy department from 8 medical schools in Nigeria.

The male to female ratio was 126:82 for students and 32:8 for lecturers. (Table-1)

Table 1: Demographic characteristics of respondents

Response	Students		Lecturers	
Ages of respondents	Total	(%)	Total	(%)
16-21	78	37.5	00	00.0
22-31	130	62.5	06	15.0
32-41	0	00.0	22	55.0
>41	0	00.0	12	30.0
Gender of respondents				
Males	126	60.6	32	80.0
Females	82	39.4	08	20.0
Total	208	83.9	40	16.1

Table 2: Attitude of respondents towards restructuring anatomy, clinical experience, teaching aids, class size, informed career choice and career satisfaction

Response	Yes		No		No response	
	Frequency	(%)	f	(%)	f	(%)
Is anatomy curriculum career friendly	54	(21.8)	182	73.4	12	4.8
Do we need to restructure it	220	(88.7)	16	6.5	12	4.8
Should students graduate in sub disciplines	152	61.3	86	34.7	10	4.0
Do lecturers interact well with students	104	41.9	144	58.1	0	0.0
Clinical experience / attachment is it done in your school	0	0.0	228	91.9	20	8.1
Do you have enough teaching aids in your school	80	32.3	162	65.3	6	2.4
Is class size good for learning	172	69.4	68	27.4	8	3.2
Do students have Informed career choice	56	22.6	186	75.0	6	2.4
Course satisfaction amongst students	49	23.6	153	73.6	6	2.9
Course satisfaction amongst lecturers	38	95.0	2	5.0	0	0.0

Table 3: Attitude of respondents towards desired areas of specialization in anatomy

Sub discipline	Response (%)
Radiologic anatomy	22.5
Forensic anatomy	16.4
Histopathology	15.7
Embryology /teratology	11.9
Embalmment/gross	11.7
Anatomical techniques	11.4
Histochemistry	10.4

A total of 54 (21.8 %) of the respondents believe that the present Anatomy curriculum is career friendly, 182 (73.4%) do not and 12 (4.8) respondents did not respond. Also a total of 220 (88.7%) of the respondent believed that the present anatomy curriculum should be restructured to make it more career friendly, 16 (6.5%) did not and 12 (4.8%) did not respond.

When asked if they think that anatomy undergraduate students should specialize in sub discipline; 152(61.3%) answered in the affirmative while, 86(34.7%) answered no and 10(4.0%) respondents did not respond. When asked if they think that anatomy lecturers have enough interaction with students; majority of the students 144(58.1%) believed that anatomy lecturers do not have adequate interaction with the students, while 104(41.9%) believed that they do. When asked if their schools expose anatomy students to clinical/industrial attachment, 228

(91.9%) of the respondents affirmed that their schools do not send their students for industrial training while 20(8.1%) gave no response.

When asked if they think that industrial training/clinical experience will motivate and further improve the quality of anatomy graduates; majority of the respondents 228(91.9%) answered in the affirmative 10(4.0%) answered no while10(4.0%) did not respond. When asked if they think that enough teaching aids were available for learning in their schools 80(32.3%) answered in the affirmative,162(65.3%) answered no while 6(2.4%) did not respond.

When asked about the class size for anatomy students in their schools;

30(12.8%) of the respondents gave the class size as 1-20, 74(29.8%) of the respondents said it was 21-50, while 122(49.2%) of the respondents said it was 51-100 and for 14 (5.5%) it was greater than 100 while 8(3.2%) did not respond.

When asked if the class size good for learning; 172 (69.4%) believe it was good 68 (27.4%) did not and 8 (3.2%) did not respond. When asked about the failure rate amongst anatomy students in their schools; 48 (21.4%) said it was low, 96 (38.7%) said it was moderate and 104 (41.9%) said it was high.

When asked if students have informed choice before starting a career in anatomy; 56 (22.6%) of our respondents believed that anatomy students have informed choice before starting a career in anatomy, while 186 (75.0%) did not believe so and 6 (2.4%) did not respond. When asked if anatomy students had career satisfaction in their school; 49(23.6%) of the students believed that anatomy students have career satisfaction, while 153 (73.6%) did not believe so and 6(2.9%) did not respond. When asked if there was career satisfaction amongst anatomy lecturers; 38(95%) of the lecturers believed there was career satisfaction amongst anatomy lecturers while 2(5%) did not.

Discussion

In Nigeria career prospects in anatomy is narrow and graduates and undergraduates have a lot of challenges as students often face career uncertainties, and at graduation find themselves ill- prepared for employment. The present study sought to identify these challenges and proffer possible remedies towards improving anatomy curriculum and making it more career-friendly.

The present Anatomy curriculum in Nigeria is not career friendly; it should be restructured to make it more career friendly as advocated by majority of the respondents. This is why research into anatomy education and curriculum should be a continuous exercise[2]. There is also a need to evaluate current curriculum in terms of what students need to learn[11].

Students should spend enough time on practical work and schools should send out their students on industrial training or clinical experience in related areas, as this study shows that no Bachelor of science in Anatomy awarding institution in Nigeria represented at the conference sends out its student for clinical experience; in hospitals, mortuaries nor for industrial attachment in relevant areas. There is however, advocacy that industrial training should be introduced into anatomy curriculum as majority of the respondents were of the view that this will motivate and further improve the quality of anatomy graduates. Medical imaging, x-rays, magnetic resonant imaging (MRI) and ultrasound had earlier been advocated for the study of anatomy[1], this could only be possible in a developing country like Nigeria through industrial attachment in hospitals and other such institutions that have such facilities. This is even more so as teaching aids are apparently not sufficient for training in most schools, as shown in this study where only 16.9% of the respondents thought that the teaching aids in their schools were enough for training. Students should be exposed to such facilities through industrial training to gain relevant experience and generate interest and confidence for a successful career. The high failure rate of

students in anatomy department as shown in this study may be due to low interest and lack of career satisfaction by the students. Continuous assessment should be introduced and incorporated into the learning process to improve the pass rate[1].

Summary and Conclusion

The majority of respondents in this study believed that the present anatomy curriculum needs urgent review and major restructuring to make it career friendly. There is need to introduce clinical experience and industrial training in relevant areas, there is also need to introduce sub-disciplines as tools to encourage and motivate students for improved performance, facilities must be improved and students should spend enough time on practical experience as advocated by respondents in this study, this will help to improve students' satisfaction and performance. Anatomy must not be seen as a medical appendage for the training of medical students, but as a career course with a well outlined curriculum to support the training of its undergraduate.

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