



Value of Anatomy in Medical Education and Practice

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ABSTRACT

AIM: The aim of the present study is to analyze the value of anatomy in successful clinical practice.

METHODOLOGY: The study conducted among successful practicing medial and paramedical professionals. A questionnaire is distributed to them and requested to fill the same within a day. The questionnaire has statements which includes concepts like anatomy as a subject, as a career, its role in research, evidence based practice, current trends, awareness about research in anatomy, opinion about anatomy in clinical practice.

RESULTS: The result of the present study suggested that most of the professionals are unaware of the current research trends in anatomy. They accept the concept that anatomy is the pillar of medicine, at the same time treat anatomy as a fact. It is felt that anatomy is a difficult subject and many fail to choose it as their career which reflects that the teaching methodology should be modified to make it interesting and worthy.

CONCLUSION: The current trends in research in the field of anatomy may raise the standard and interest in the subject which in turn help in knowledge retention and successful clinical practice.

KEYWORDS : Anatomy, evidence based practice, research, teaching methodology, curriculum.

INTRODUCTION

Anatomy has an established value in medical education. Anatomy in the undergraduate program presented a decline for many years. Metamorphosis should take place in teaching anatomy as application oriented¹. Anatomy is acting as a corner stone of medical education for hundreds of years. Anatomical Knowledge becomes essential for examination of a patient, the formation of a diagnosis and communication of these findings to the patient and other medical professionals. Anatomy is a subject obviously essential for surgeons but also has value for anyone who performs invasive procedures, carries out emergency procedures, examining radiological imaging, and performs a physical examination of patient. Learning Anatomy without understanding cannot be accepted as a deep approach to learning². It has been reported that there has been a decline in undergraduate knowledge of anatomy among the surgical community³⁻⁶. Studies report the reduction in allocated time, teaching staff and dissection in most anatomy courses⁷. Few studies^{8,9} reported knowledge of anatomy in qualifying doctors is now below an acceptable level. Anatomy as a subject has suffered as a result of its failure to evolve and adapt quickly enough. Under old style of training, students were learning anatomy with little understanding. It become as a passage through medical course instead educationally valid process. There is a debate on teaching methodology of anatomy either traditional way of teaching or support newer teaching methodologies like Self directed learning, Problem based learning(PBL), Computer Assisted Learning(CAL).

The curriculum of anatomy should be designed getting suggestions and opinions from clinicians, especially surgeons and also other clinical practitioners to have a complete satisfactory curriculum. Anatomy has been taught predominantly in first year of under graduation, but students lack its reinforcements in clinical years. A Minimum working knowledge becomes essential for any independent practitioner to practice safely and communicate to other medical professionals. Imparting latest teaching methodologies, modifying curriculum to application oriented by analyzing the need of any medical practitioner can help anatomy as a subject to have knowledge retention and enable the practitioners to have a successful career¹⁰.

METHODOLOGY

The study conducted among 100 qualified, successful practicing medial and paramedical professionals of ACS Medical College. The details of the study are explained to them and their willingness is obtained by informed consent. A questionnaire is distributed to them and requested to fill the same within a day. The questionnaire has statements which includes concepts like anatomy as a subject, as a career, its role in research, evidence based practice, current trends, awareness about research in anatomy, opinion about anatomy in clinical practice. The professionals are requested to tick the accepted column, the results are analysed using agree, strongly agree, disagree and neutral ratings.

DATA ANALYSIS AND RESULTS

**Table - 1. Analysis of Survey
N=100**

Sl	Questions	Strongly Agree N & %	Tend to Agree N & %	Disagree N & %	Neutral N & %
1	Anatomy is the back bone of medicine	10	76	12	2
2	Without knowledge of anatomy no medical professional can have successful clinical practice	80	15	5	5
3	Curriculum of Anatomy followed presently is sufficient	10	30	55	5
4	Teaching methodology can be modified	30	50	15	5
5	Knowledge retention of anatomy is mandatory	12	75	7	6
6	Anatomy as a career	11	40	37	12
7	Anatomy as a subject is hard to learn	8	92	-	-
8	It is to retain knowledge of anatomy	12	88	-	-
9	Application oriented teaching anatomy helps in knowledge retention	75	18	5	2
10	Evidence based practice in teaching anatomy is applicable	5	25	10	60

11	It is possible to do evidence based practice in anatomy research	2	12	31	55
12	Opinion of anatomist is essential before any surgical procedures	5	45	17	33
13	Anatomy has role in current research	11	39	28	22
14	Knowledge updation in anatomy is essential for medical students and professionals	8	32	33	27
15	Awareness of current research trends in anatomy is essential for medical professional.	15	78	-	5

On analyzing the data 76% of professionals agreed anatomy is the back bone of medicine and 12% disagreed the statement. 80% of them strongly agreed that without knowledge of anatomy no medical professional can have successful clinical practice and only 5% disagreed the statement. 55% disagreed that the curriculum followed presently is sufficient, only 30% agreed the statement. 50% of participant agreed that teaching methodology can be modified and only 15% disagreed the statement. 75% agreed that knowledge retention is mandatory for practice and 7% disagreed. Only 40% agreed that anatomy as a career and 37% disagreed. 92% agreed anatomy is difficult to learn and 88% agreed that it is difficult to retain knowledge gained. 75% strongly agreed that application oriented teaching helps in knowledge retention and only 5% disagreed. Only 25% agreed that evidence based practice in teaching anatomy is applicable and 60% has neutral opinion. 31% disagreed and 55% has neutral opinion about evidence based practice in anatomy research. 45% agreed and 33% has neutral about the statement that opinion of anatomist is importance before any surgical procedures. 39% percent agreed and 28% disagreed that anatomy has role in current research. 32% agreed and 33% disagreed that knowledge updation is essential for students and professionals. 78% agreed that awareness of current research trends in anatomy is essential for medical professionals.

DISCUSSION

On observation of the results obtained from the survey it can be suggested that most of the professionals are unaware of the current research trends in anatomy. They accept the concept that anatomy is the pillar of medicine, at the same time treat anatomy as a fact. The current research trend in the field of anatomy is running beyond the facts. It becomes possible to practice teaching Anatomy as evidence based practice. At the same time they believe that if teaching methodology is modified as application oriented, knowledge retention can be gained which will help a lot for successful clinical practice. It is felt that anatomy is a difficult subject and many fail to choose it as their

career which reflects that the teaching methodology should be modified to make it interesting and worthy. Learning without understanding makes the subject feel difficult and worthless. By modifying the teaching methodology as application oriented and imparting active teaching learning process instead of passive teaching and imparting more research activity knowledge retention can be achieved which will make the subject feel lighter and interesting. A survey conducted by American Association of Anatomist(AAA) and Association of Cell biology, and Neurobiology chair persons (AACBNC) in 2002 reported that the medical school administrators' plans for faculty hiring and curriculum changes were based on the supposition that too few anatomist are being trained to meet future teaching needs¹¹. To overcome the shortage of qualified educators it is suggested to recruit new faculties who have active research programs and also are interested and willing to teach anatomy. United States Medical schools are instituting some form of "Mission – based budgeting" a process that seeks to allocate mission –specific revenues with qualified faculty activity. Increase in the number of researches in recent trends and the technology in combination improves our capability to diagnose and treat disease. The successful clinicians who are in practice are taught by educators with an indepth knowledge of and appreciation of human anatomy¹¹.

CONCLUSION-

The study of human anatomy will be a wonderful journey if we make it interesting, worthwhile, understanding, incorporate the knowledge gained in clinical practice. The current trends in research in the field of anatomy may raise the standard and interest in the subject which in turn help in knowledge retention and successful clinical practice.

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