

Perception of medical students towards pathology museum as a teaching learning tool.

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Abstract

Introduction: Traditional museums are an essential part of teaching pathology in Medical school. They are the hub of information on many diseases as well as a source of awareness for even the common people.

Aim and objectives: To know the perception and interest of the medical students towards pathology museum as a teaching learning tool.

Methodology: The self-administered questionnaire was undertaken in the department of pathology which comprised of questions about traditional pathology museum in order to know the perception of the students regarding the role of museum as a learning tool. Information regarding students visit to the museum, purpose of visit and uses of museum was collected and analysed.

Results: A total of eighty one (81) medical students participated in the study. Of them 76 (93.8%) had visited the museum. 42 (55.2%) visited the museum because they were taken there during pathology introduction class. Majority of students 68 (56.6%) knew the importance of museums in learning process.

Conclusion: Majority of students felt museum is an important learning tool for better understanding of subject. Museum specimens helped them to improve their cognitive domain, visual perception, helped retention and was useful as an important learning tool.

Key words: Traditional Pathology Museum, Virtual Museum, Perception

Introduction:

Modern technology has improved teaching and learning and in spite of virtual museums available for students learning, traditional museum are an essential part of teaching pathology in Medical school. They are the hub of information on many diseases as well as a source of awareness for even the common people. Every medical college has a traditional museum where many specimens are mounted along with display charts and models for better learning of a pathological processes.

As per Medical council of India regulation (MCI), minimum standard criteria, museum should have an area of 90 square meter with specimens, charts models and microscopes.

There is a need to improve and support traditional pathology museum otherwise pathology museums may gradually lose importance with the advent of virtual museum¹⁻⁴.

Pathology museums are important for medical students as they are a source of ample information on various diseases, which can help them to learn in

preclinical years and with regular visits to museum in clinical years¹⁻⁴.

The Question that arises in our mind is, are these traditional museums being utilised for learning by medical students?

There is always a need to bridge the gap between the basic sciences and clinical medicine in order to teach the younger generation a proper path to understand the basic pathological processes through specimens which are important for clinical correlation⁵.

Hence learning in the traditional pathology museum is a key step that guides the students in order to invigorate and inspire them for better learning and for clinical students to revisit their pathology knowledge.

The present study was undertaken to know the perception of the medical students towards pathology museum as a teaching learning tool.

Methodology:

This is a Descriptive study which involved IInd year MBBS students. A self administered Questionnaire

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based survey was undertaken in the department of pathology. After explaining the purpose of study, verbal consent was taken and students who consented answered the questionnaire. Students identity was anonymous and participation was voluntary. The questionnaire comprised of questions about traditional pathology museum in order to know the perception of the students regarding the role of museum as a learning tool. Information regarding students visit to the museum, purpose of visit and uses of museum was collected and analysed.

Results:

A total of eighty one (81) medical students who consented participated in the study. Of them 76 (93.8%) said they had visited the museum and 5 (6.2%) students had not. Various reasons for visiting the museum are shown in table 1.

Table 1: Reasons for visiting the museum

| | |
|-------------------------------|------------|
| Introduction class | 42 (55.2%) |
| To see hub of gross specimens | 16 (21%) |
| For practical knowledge | 14 (18.4%) |
| For research work | 02 (2.6%) |
| For picture memory | 02 (2.6%) |
| No response | 01 (1.2%) |
| Total | 76 (100%) |

42 (55.2%) visited the museum because they were taken there during pathology introduction class. 16 (21%) students were interested to see mounted gross specimens to understand the concept of basic pathological processes in relation to clinical findings. 14 (18.4%) went to gain practical knowledge and to learn the subject better. 2 (2.6%) students each went there for research work to collect pictures of various gross specimens as a part of their assignment and picture memory which is remembered for longer time to make subject easy and interesting. One student had no response.

Perception of students regarding the importance and uses of pathology museum varied (Table 2) and the responses were more than one.

Table 2: Perceptions of medical students about the use of Pathology museum

| | |
|---|----|
| Museums are used to visualize gross features, pictures, charts and models of various Diseases | 21 |
| Museums are helpful to understand and remember the subject better | 17 |

| | |
|---|----|
| Pathology museums are store house of gross specimens | 14 |
| Useful for practical knowledge to understand the pathogenesis and basic concepts | 11 |
| Visual knowledge of different specimens are more useful for retaining longer memory of the subject | 06 |
| Useful to preserve rare specimens for future generations to see | 06 |
| Museums are useful for viewing actual specimens than seeing in books and can be retained and remembered for longer duration | 06 |
| Museums are useful to understand difficult diseases, their progression, clinical features and treatment | 05 |
| Museums are useful for study purpose | 05 |
| Museums are useful for preparing future clinical practice | 03 |
| Museums are useful to learn and compare the pictures and theory in the book with specimens | 03 |
| Provide knowledge about pathology instead of mugging the theory | 03 |
| Museums are helpful to discuss the specimens | 03 |
| Museums are useful for comparison of specimens with food items in form of similies | 02 |
| Museums help in preparing for future clinical practice and diagnosis | 02 |
| Museums are beneficial as memory booster in interactive and entertaining manner. | 01 |
| Museums are helpful in discussion of case scenioros of medicine, gynae obsterics, paediatrics and surgery postings through gross specimen | 01 |
| Museum is a place of curiosity where entire textbook can be studied | 01 |

| | |
|---|----|
| Museums are useful to clarify the doubts in textbook | 01 |
| Museums are an extraordinary way of Learning | 01 |
| Museums are useful for comprehensive records of specimens which can be displayed for students to understand | 01 |
| Useful for comparative study | 01 |
| Useful to preserve specimens for research study | 01 |
| Museums are useful for references while Studying to make subject easy for learning | 01 |
| No response | 01 |

35 (29.1%) students said it is a store house of gross specimens, which are useful for future research 7 (6.0%) and to learn clinical medicine 10 (8.3%) . Majority of students 68 (56.6%) knew the importance of museums in learning process.

Museum specimens helped them to improve their cognitive domain, visual perception, helped retention and was useful as an important learning tool. From this analysis, it was found that majority of students felt ,museum is an important learning tool for better understanding of subject.

Discussion:

The purpose behind learning pathology through museum is to understand the basis of disease process, so that the medical student understands the clinical manifestations and hence, treatment of the condition . Majority of students felt that pathology museums are useful for learning. in a survey done by Chatelain et al 93% of students felt that pathology had a major role in modern medicine and students learnt pathology through different teaching methods but they reported that there is need to emphasize the importance of pathology museums⁶.

Therefore suitable and appropriate arrangements should be made in order to stimulate students and to invoke interest in them for museums in a manner which includes entry, attachment, learning and success results in the examination with everlasting imprints in the mind which helps to improve clinical knowledge.

More time should be allocated for practical sessions for teaching pathology in museums⁷.

Practical sessions should be taken at the beginning of the course so that the students can be well oriented and dedicated to the museums. It can be helpful in developing interest of the students towards the subject and can help them in self directed learning instead of mugging theory. Museum teaching should be encouraged in an integrated and cohesive manner to ensure that the students receive an education that will prepare them for current state and, eventually, for future practice. Pathology learning through traditional museums forms the basis of teaching various discipline such as medicine, surgery, gynaecology and paediatrics^{8,9}.

Very few institutions have a proper standard operative process for the museums. so a proper planning is required for utilization of museums by the students. According to Vaughn L et al, it is important that teaching and learning should be in a way that involves excitement, fun and motivation for both medical teachers and students instead of boring one sided presentations¹⁰. Therefore museums should be considered as an important media for teaching learning.

Importance of pathology museum is mainly educational and museum is not merely for collection of important, unusual or rare specimen. It is a place of learning for all. No student leaves its door, without learning something from his visit. Pathology museum is a visual book of morphological changes in various organs which reveal the signs of various diseases.

It is not enough for pathology department to build and store specimen in museum, and to let students find out its value for themselves. Regular teaching and learning, with teacher interaction has to happen, so that museums become an active learning place and not just visual memory bank.

Conclusion:

In recent years, pathology teaching and learning in medical schools has turned full circle and has gradually entered from traditional world to modernized digital world. Result being that in various medical schools traditional methods of teaching and learning have been overtaken by modern techniques such as virtual museums, digital images and power point presentations.

There is a danger of Extinction of Traditional pathology museums which raises many questions in our mind as to: Who will teach medical students museum pathology in future? Is modern digital technology more important than traditional museum?

Whatever may be the result ,we as teachers have an important role to emphasize on traditional methods of teaching in addition to modern methods. It

Traditional methods definitely bonds the relation between teacher and student through interactions and discussions whether in museums or in class. So in this world of technologies, teachers have a duty to teach students with synergistic approach of combination of traditional methods combined with modern methods.

Museums are collective memory and visual bank of human achievement and hardwork of pathologists, clinicians and technicians visualized through a precious collection of past and present specimens ,charts and models at one place. It stimulates curiosity for learning ,the gratification of which increases knowledge. Learning pathology through museums can be very well considered as a teaching learning tool not only for teacher directed teaching but also for self directed learning. Periodical visit to museum can help students to develop interest in learning. Teaching through traditional pathology museums is a task which comprises of triad features-enthusiasim, time and patience, which if done properly ,is greatly rewarding.

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