

Satisfaction of Clinical Years Medical Students about Clinical Pathology Museum Sessions in Hybrid Integrated Curriculum

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Abstract: There is a need to introduce innovative approach in an undergraduate medical school to support pathology teaching through integrating pathology with clinical medicine. Medical school at UiTM Malaysia has been decided to deliver clinical museum sessions to clinical year students. This study was carried out at Faculty of Medicine, UiTM Malaysia to ascertain the students' opinion and satisfaction on the clinical pathology museum sessions. Quantitative and qualitative survey using self-administered questionnaire was used. A total number of 360 medical students from Year 3, Year 4 and Year 5 participated in this study. The mean age of the participants was 23.04 ± 0.97 . Majority of students agreed that these sessions helped them to understand the concepts of basic pathological processes in relation to their clinical findings. These sessions are a great deal and students were satisfied with the integrated structure of pathology as an independent with other subjects in the faculty.

Key words: Museum • Pathology • Teaching • Curriculum

INTRODUCTION

A well-maintained pathology museum is often the source of information on many diseases in preclinical years and regular visits to a pathology museum are, therefore, considered an essential component of teaching pathology to medical students [1-3]. However, due to technological progress, the pathology museum is gradually losing its importance compared to other methods of teaching, such as virtual presentations, problem-based integrated learning modules and web based clinical pathological cases [1, 4-7].

Faculty of Medicine, Universiti Teknologi MARA (UiTM) Malaysia, transferred to two new separated campuses. There are two large museums in these two campuses with collections containing hundreds of specimens. These two museums are new in a modern model and have better spaces for those who work in the museum and those who visit it, with new galleries and

their displays are stunning. High quality digital images with electronic catalogues are gradually being transferred to the digital room of museums, as well as supplementary teaching material.

Medical education has undergone substantial change in recent years, resulting in shorter, more compact courses that often contain much less pathology than previously. Hence, there is a need to introduce innovative approach in an undergraduate medical school to supporting pathology teaching, through integrating pathology with clinical medicine. This means introduce innovative practices and modify the existing infrastructure to teach medical students in clinical years and after preclinical year pathology [1].

As pathology educators we believe that exposure of clinical years students (Year 3, Year 4 and Year 5) to pathology museum is a step in the right direction of guiding medical students who would have by the time they reach the clinical years forgotten pathology, or at

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least have given a back seat to pathology, in order to invigorate and inspire students to revisit their pathology knowledge. However, we think that we need to do assessment the effect of these classes on the students and their perception with satisfaction, therefore, this study was carried out at Faculty of Medicine, UiTM Malaysia to ascertain the students' opinion and satisfaction on the clinical pathology museum sessions and their suggestions on how to improve them.

MATERIALS AND METHODS

A convenience sampling was used in this study. Quantitative and qualitative survey using self-administered questionnaire was used. All Year 3, Year 4 and Year 5 medical students (batch 2012-2013) of the Faculty of Medicine from Universiti Teknologi MARA (UiTM) Malaysia were invited to participate in this study.

The questionnaire comprises of a list of 15 questions about clinical museum pathology teaching sessions in order to get perspectives in depth to elicit a rich understanding of the participant's way of thinking about these classes.

Verbal consent was taken from each student participating in the study after explaining the purpose of the study. Participation in the study was voluntary and the identity of each student was anonymous. Inclusion criteria: All clinical years' medical students attending clinical museum pathology sessions and willing to

participate in the study. The questionnaires were administered at the end of each session (one session per posting) by the museum staff at the museum of Sungai BulohUiTM campus to ensure compliance and completion of the task and after the initial introduction and brief explanation of the research by anatomic pathologist investigator.

All data were analyzed using the Statistical Package for Social Sciences (SPSS) version 13. Descriptive analysis was used in this study.

RESULTS

A total number of 360 medical students participated in this study. The mean age of the participants was 23.04 ± 0.97 with minimum age 21 and maximum 26 years old. The majority of the participants were 23 years old (34.7%) and female 73.1% (Table 1).

Table 1: Socio-demographic of the medical students (n=360)

Variable	Categories	Number	Percentage
Sex	Male	97	26.9%
	Female	263	73.1%
Age	21	9	2.5
	22	108	30.0
	23	125	34.7
	24	102	28.3
	25	9	2.5
	26	7	1.9
Year	3 rd	114	31.7
	4 th	104	28.9
	5 th	142	39.4

Table 2: Perceptions of medical students about clinical pathology museum sessions (n=360)

No.	Item	Disagree	Don't know	Agree
1.	There are clear objectives of clinical pathology museum sessions in clinical years	30 (8.3%)	51 (14.2%)	279 (77.5%)
2.	I feel that Clinical pathology museum sessions are of benefit for me in clinical years	7 (1.9%)	29 (8.1)	324 (90%)
3.	Clinical pathology museum sessions encourage my engagement in the clinical work.	10 (2.8%)	81 (22.5%)	269 (74.7%)
4.	Clinical pathology museum sessions facilitate my learning.	4 (1.1%)	36 (10%)	320 (88.9%)
5.	The Clinical pathology museum sessions has contributed to the quality of my learning.	3 (0.8%)	52 (14.4%)	305 (84.7%)
6.	The Clinical pathology museum sessions encouraged my independent study.	12 (3.3%)	88 (24.4%)	260 (72.2%)
7.	Clinical pathology museum sessions help me understand concepts of basic pathological processes in relation to their clinical findings.	5 (1.4%)	37 (10.3%)	318 (88.3)
8.	I am rarely bored in Clinical pathology museum sessions	76 (21.1%)	114 (31.7%)	170 (47.2%)
9.	The Clinical pathology museum sessions has increased my stress load.	170 (47.2%)	100 (27.8%)	90 (25%)
10.	The learning climate of the Clinical pathology museum sessions is positive.	7 (1.9%)	56 (15.6%)	297 (82.5%)
11.	The contact teaching time of Clinical pathology museum sessions is enough.	44 (12.2%)	99 (27.5%)	217 (60.3%)
12.	I think the Clinical pathology museum sessions should be increased more than one session per posting.	52 (14.4%)	115 (31.9%)	193 (53.6%)
13.	I feel the Clinical pathology museum sessions are preparing me well for future clinical practice.	6 (1.7%)	53 (14.7%)	301 (83.6%)
14.	Overall I found the Clinical pathology museum sessions are a great deal in clinical years.	6 (1.7%)	42 (11.7%)	312 (86.7%)
15.	Overall I am satisfied with the integrated structure of pathology teaching as an independent with other subjects in UiTM.	10 (2.8%)	38 (10.6%)	312 (86.7%)

Majority of the students (77.5%) agreed that the objectives of clinical pathology museum sessions were clear. Furthermore, 90% of the students agreed that these sessions were of benefits for them in the clinical years. In addition, majority of the students (74.7%) agreed that clinical pathology sessions encourage them to engage in the clinical work and facilitate their learning (88.9%). Similarly, the majority of the students agreed that the clinical pathology museum sessions contributed to the quality of learning (84.7%) and encourage them for more independent study (72.2%), Table 2.

The majority of the students agreed (88.3%) that the clinical pathology helped them to understand the concepts of basic pathological processes in relation to their clinical findings, table 2. About 47.2% were rarely felt bored in clinical pathology museum sessions and 25% of the students felt that these sessions increased their stress, Table 2.

Majority of the students agreed that the learning climate of the clinical pathology museum sessions is positive and the contact teaching time of the sessions is enough (82.5%, 60.3%; respectively), Table2.

More than half of the participants (53.6%) agreed that the number of these sessions should be increased more than one session per posting and the majority (83.6%) reported that such sessions will prepare them well for future clinical practice, Table2.

Finally, overall the students found these sessions are a great deal and they were satisfied with the integrated structure of pathology as an independent with other subjects in the faculty (86.7%), Table 2.

DISCUSSION

This is the first study to the best of our knowledge that reports results of clinical years medical students' perception about clinical pathology museum sessions in hybrid integrated curriculum implemented at public Malaysian university. This study provides the Department of Pathology and Faculty management an overall student's authentic evaluation and perception about teaching methodologies employed in clinical years regarding pathology that effectively introducing in hybrid curriculum model. This will help as stimulus to further consolidate this innovative present method.

About 90% of the students agreed that clinical pathology museum sessions were of benefits for them in the clinical years in addition, majority of the students agreed that clinical pathology sessions encourage them

to engage in the clinical work and facilitate their learning. In a survey done by Chatelain *et al.* [7], 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 a need to emphasize the importance of pathology museums.

In current study; about 47.2% were rarely felt bored in clinical pathology museum sessions and 25% of the students felt that these sessions increased their stress and most students (78%) felt that pathology museums need to be improved [6].

According to the results of current study we as pathology educators know that the method of teaching pathology to clinical year students through these clinical museum sessions plays pivotal role because we know that Pathology forms the basis of teaching in disciplines such as Medicine, Surgery, Gynaecology and Obstetrics and Paediatrics [8-9]. The students are taught pathology while performing their clinical posting and are also given an opportunity to get a microscopic view of disease entities at microscope based sessions. With these clinical museum sessions it has been observed that when students are challenged with developing clinical history associated with each museum specimen it results in ascertain degree of excitement among students. Another important point, while discussing clinical history the students are reminded of laboratory medicine. They are guided to interpret laboratory findings in the light of clinical history as well as the museum specimens [8-9]. By the time they have matured in thinking and analyzing clinical data they become aware of the implications of learning pathology.

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