



**MEDICAL STUDENTS PERCEPTIONS OF PATHOLOGISTS: FACULTY OF
MEDICINE, OMDURMAN ISLAMIC UNIVERSITY, SUDAN**

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ABSTRACT

Background: Pathology is considered as the science behind the cure and pathologists are famous of being the physicians of physicians, despite that no medical speciality has received much misconceptions and myths as pathology. The aim of this study is to investigate the perception of first year medical students at the faculty of medicine (FofM), Omdurman Islamic University(OIU) concerning pathologists. **Materials & Methods:** 132 students were surveyed through a close constructed questionnaire. **Results:** 90% of respondents think pathologists have role in patient care, 54% think pathologists have bigger role in patient care, 34% think pathologists have equal patient care roles to other medical doctors. 59%of respondents reported a positive change in perception concerning pathologists by the end of the course. 45% prefer a future career as a pathologist. **Conclusion:** Students reported overall positive perception of pathologists.

KEYWORDS: Perception, pathologists, FofM, OIU.

INTRODUCTION

Despite the fact that pathologists think of pathology as the science behind the cure^[1] and despite it is often said that A pathologist is the physician's physician^[2], no medical speciality has received much misconceptions and myths as pathology. The misconceptions about pathology and pathologists are shared by the public as well as by other doctors, residents and medical students.^[3,4,5,6]

Some of the commonest myths and misconceptions about pathology can be summarized ,that pathologists are not involved in patient care and have no contact with patients^[7,8], pathology and pathologists job is confined to performing autopsy^[7,8,9], pathologists spend most of their time in a laboratory and research. Pathology is like the show CSI^[9,10], pathology is a single speciality with no place for sub-specialization^[7,8], pathology is frequently mis-perceived for being the same as the medical school course of the same name.^[8] Almost all pathologists are familiar with these popular misconceptions which surrounds their particular speciality.^[5]

Some of the misconceptions of pathology and pathologists originated back to the early history of the speciality when doctors used to perform autopsy so as to know the cause of the death of their patients.^[9,10]

Many pathologists defended against these myths in details, explaining the uniqueness of pathology as being both a basic science and a medical speciality.^[8] The misconception that pathologists are not involved in patient care can be explained by the nature of their work in laboratories.^[2,5,8] In fact pathologists are widely involved in patient care and are major decision makers in patient treatment especially in fine needle cytology (FNA) and in Multidisciplinary Team (MDT) cancer clinics.^[7] A greatest myth is that pathology is a single speciality, in fact pathology training boards worldwide have tens of pathology sub-specialities, for example the Royal College of Pathologists of UK has 19 pathology sub-specialities.^[8]

Despite the fact that medical students recognise pathology as a cornerstone disciple in medical schools and believe pathologists to be the most knowledgeable in the medical profession; they still have the misconceptions that pathologists have no contact with living patients and are chained behind their microscopes or just do autopsy.^[10] The source of such misconceptions may be partially explained by medical comedies, such as Scrubs that portray pathologists as failed as clinicians or are afraid of patients and hide behind their desks and microscopes.^[10] In fact Medical students get little exposure to pathology as a career.^[10]

Some pathologist think that pathology education is in danger due to the reduced number of teaching hours of pathology in the integration system, on the other hand Some think the reduced hours will not affect students perception of pathology^[9] other think that students choice of pathology as a career depends on the knowledge acquired in the undergraduate level.^[10]

The aim of this study is to investigate the perception of first year medical students at the faculty of medicine, Omdurman Islamic University regarding pathologists, after completing their first pathology module.

MATERIAL AND METHODS

This is a prospective cross sectional study conducted at the Faculty of Medicine(F of M), Omdurman Islamic University(OIU), Khartoum, Sudan from the period of August to October 2015. The university was founded in the year 1900, The Faculty of Medicine was established in the year 1990.

The Faculty of Medicine(OIU) adopts a hybrid curriculum mixing features from both traditional and innovative curricula with emphasis on Problem Based Learning(PBL) and integration . Students study a basic pathology module (introduction to pathology) in semester 2. Systemic pathology is studied integrated within other modules in the following semesters.

This study surveyed 132 medical students who completed their basic pathology module. Age range was 18-20 years. The study was conducted through a self

administered, constructed questionnaire composed of ten questions designed to elicit medical students perceptions of pathologists by the end of their first pathology course.

The elements of the questionnaire were as follow: the university college from which pathologists graduate, postgraduate qualification, the role of pathologist in patient's management, the role of pathologist compared to other clinicians, the jobs that can be done by pathologists, whether other medical personnel can play the role of a pathologist, pathologists Medical knowledge compared to other physicians. workplace for pathologists, change of perception regarding pathologist after the course. the last question was about choosing pathology as a career compared to other medical specialties. Data analysis was performed using SPSS 27, results obtained was displayed using simple tables.

Research ethical approval was obtained from the scientific ethics committee at the faculty of medicine at OIU. Obtained written consent was taken from all survey members.

RESULTS

One hundred thirty two students responded to a close questionnaire consisting of ten questions covering various aspects concerning pathologists such as qualifications, knowledge and job.

The tables from 1 to 10 display the frequencies and percent of students response to each element.

Table 1: Students responses regarding the faculty from which pathologists graduated.

Faculty	Frequency	Percent
Faculty of Medicine	102	%77.3
Faculty of Medical laboratories	17	%12.9
Faculty of Science	13	%9.8
Total	132	%100.0

Table 2: Pathologists postgraduate qualifications.

Scientific degree	Frequency	Percent
	3	%2.3
Master	25	%18.9
MD	9	%6.8
PHD	6	%4.5
All of the above	89	%67.4
Total	132	%100.0

Table 3: Students responses concerning whether pathologists have role in patient care or not.

	Frequency	Percent
Non-respondent	2	%1.5
Yes	120	%90.9
No	10	%7.6
Total	132	%100.0

Table 4: Pathologists' role in patient care compared to other medical specialities.

	Frequency	Percent
Non-respondent	7	%5.3
Bigger	72	%54.5
Equal	46	%34.8
Smaller	7	%5.3
Total	132	%100.0

Table 5: Jobs that can be done by pathologists.

jobs	Frequency	Percent
Non-respondent%	3	%2.3
Teach pathology	12	%9.1
Diagnose surgical pathology specimens	3	%2.3
Diagnose cytology specimens	3	%2.3
Diagnose bone marrow biopsy	3	%2.3
Do all the above	108	%81.8
Total	132	%100.0

Table 6: Other personnel who can do the jobs of pathologists.

Personnel	Frequency	Percent
Non-respondent	3	%2.3
Scientists	10	%7.6
Laboratory technologists	24	%18.2
Other medical doctors	22	%16.7
All of the above	57	%43.2
None of the above	16	%12.1
Total	132	%100.0

Table 7: Medical Knowledge of pathologists compared to other medical specialities.

	Frequency	Percent
Non-respondent	3	%2.3
Better	89	%67.4
Less	15	%11.4
No Difference	25	%18.9
Total	132	%100.0

Table 8: Pathologists work place.

	Frequency	Percent
Non-respondent	2	%1.5
Wards	1	%0.8
Clinics	31	%23.5
laboratory	30	%22.7
All of the above	59	%44.7
None of the above	9	%6.8
Total	132	%100.0

Table 9: Change of perception about pathologists by the end of the basic pathology module.

	Frequency	Percent
Non-respondent	3	%2.3
Positively changed	78	%59.1
Negatively changed	32	%24.2
No Difference	19	%14.4
Total	132	%100.0

Table 10: Future career as a pathologist compared to other medical specialities.

	Frequency	Percent
Non-respondent	2	% 1.5
Better	60	%45.5
Worse	25	% 18.9
No difference	45	%34.1
Total	132	%100.0

DISCUSSION

The majority of respondents 77% choose the faculty of medicine as the faculty from which pathologists graduate, this reflects positive perception of pathologists, table(1).

Sixty seven percent (67%) of students think that pathologists can qualify with master, MD or a PHD, this reflects a positive conception concerning pathologists qualification, table(2).

The majority of respondents (90.9% think that pathologists have role in patient care, this is in contrast to a big body of misconception literature accusing pathologists of having no role in patient care^[2,8,9,10], table(3).

Fifty –four (54%) think that pathologists have bigger role in patient care compared to other medical specialities; this result is in favour of the unrecognized role of pathologists as physicians of physicians.^[2] Thirty –four percent (34%) think that pathologists role is equal to other physicians, this results also supports pathologists as being of equal role to other doctors. Table 4.

Eighty-one percent(81%) of students are aware of the multi-facets role of pathologists as teachers and diagnosticians, it also reflect good knowledge about pathology subspecialties. table 5.

Ten percent (10%) think scientists can do the job of pathologists. Twenty –four (24%) think laboratory technologists can replace pathologists. Twenty –two percent (22%) think other doctors can do the job of pathologists. Forty three percent (43%) think that scientists, laboratory technologists and other medical doctors all the three groups can replace pathologists. Only 16% of respondents think no one can replace the role of pathologists. We think these findings make discrepancy to the overall positive perception of pathologists of our studied group. table 6.

Sixty-seven percent 67% of respondent medical students think that the medical knowledge of pathologists is better than other medical doctors, this supports the findings of Santo^[10] in the reasons why I became a pathologist. Table 7.

Forty-four percent (44%) of respondents think that pathologists can work in different places ie laboratories, clinics and wards. These findings are in contrast to the

common misconception of pathologists being restricted to laboratories only^[10,11,13,14] table 8.

Fifty-nine percent (59%) of respondents think that their perception about pathologist have positively changed, this reflects how communication can improve the perception concerning pathologists. Our findings are supported by Jombo et al^[11] and Ford et al^[13] who found that adequate undergraduate teaching and training in pathology affects positively perception and career choice. On the contrary Holand et al^[14] found undergraduate pathology courses ineffective at influencing students perception of pathology.

In this study: 45% of respondents prefer a future career as pathologists, this is in contrast to the perception that medical students defer a career as pathologists . Jombo et al studied the effect of undergraduate pathology training on medical students carrer choice; 18.8% of students choose pathology as their future career.^[11] Ossai et el studied final year medical students specialty preference in Nigeria found that only 2% choose pathology as future career.^[12]

CONCLUSION

This study shows a variety of positive perceptions of medical students concerning different aspects of pathology and pathologists. On the contrary to many other studies and medical literature favouring low profile and negative perceptions about pathologists.^[2,3,4,5,11,13] The majority of medical students in this study favour pathology as a future Career ,this is in contrast to the literature, this may be because students are still in their basic level and haven't got exposed to other clinical subjects. The students may be enthusiastic about their first experience in studying disease. The overall positive perception of medical students in this study may reflects how close contact and communication can change the misconceptions of pathology and pathologists.

Conflict of interest: Authors display no conflict of interest.

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