



CODEN [USA]: IAJPBB

ISSN: 2349-7750

INDO AMERICAN JOURNAL OF PHARMACEUTICAL SCIENCES

<http://doi.org/10.5281/zenodo.3383244>
Available online at: <http://www.iajps.com>

Research Article

PERCEPTION OF MEDICAL STUDENTS ABOUT THEIR LEARNING DIFFICULTIES

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Article Received: June 2019

Accepted: July 2019

Published: August 2019

Abstract:

Background: The present study was conducted to know about the "Perception of medical students about their learning difficulties". Different factors are involved that cause difficulties in understanding and lead to the problems. Cross sectional analytical study method was used, and sample comprised of 300 students from Allama Iqbal Medical College. All sort of difficulties was found among students in medical education and it was noted that they affect the students' effectiveness and abilities. Keeping this in view, the purpose of our study was to find out, the learning difficulties in medical studies.

Objectives: The objectives of this study were to solve learning difficulties, know the factors possibly associated with academic performance to help under-graduate medical educators in the development and delivery of appraisal, remediation, and support mechanisms for students.

Materials and Methods:

Study Design: It was cross sectional analytical study.

Study Setting and Duration: This study was carried out at ALLAMA IQBAL MEDICAL COLLEGE, LAHORE. The duration of study was 4 Months (1st April 2014 to 31st July 2014).

Sample Size: Comprises of 300 students (150 from 1st year and 150 from 2nd year of Allama Iqbal Medical College)

Sampling Technique: Simple Random Sampling

Inclusion Criteria: Regular Students from 1st year and 2nd year MBBS of either sex

Data Collection and analysis Procedure: Those students who fulfill the inclusion criteria were selected for the study after an informed consent. Data was entered and analyzed by SPSS version: 17. Percentage was calculated. Result was recorded as frequencies, percentage, mean and standard deviation. The variable associated with learning difficulties were analyzed and was adjusted for sex differences to establish the statistically significant factors the differences was considered significant at $p < 0.05$. Cross tabulation was done with the variables.

Results: The results show that females have more difficulties in education 56% than males which is 43%. As shown in table no 3, 85% of Students mostly show the problems are due to the burden of syllabus. Too many students in class are also the main cause of difficulties. Hostel facilities, different teaching styles are the other causes.

Conclusion: The study concluded that medical students face lot of problems during their whole course because of too many factors and Internal as well as external factors are the cause of these difficulties but external effects more than other ones.

Key Words: Learning difficulties, perception, medical students.

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Please cite this article in press Arshan Ali Khan et al., *Perception Of Medical Students About Their Learning Difficulties., Indo Am. J. P. Sci, 2019; 06[08].*

INTRODUCTION:

The term 'Learning Difficulties' most often refers to difficulties in learning to read and write, but is also applied in other areas of learning, including mathematics¹. Learning difficulties can be caused by internal factors (inherent, medical, physical, neurological) and external factors, (family, communities, opportunities, experiences)². Internal factors are intrinsic to the individual, can cause a person to learn differently, are usually life-long, and are usually considered a learning disability – also referred to as a specific or significant learning difficulty or learning disability. Dyslexia is generally considered to be a learning disability, or specific learning difficulty³.

Marton carried out a seminal work in the area of learning difficulties and found that learning difficulties are influenced significantly by students' perception of the learning environment⁴. Ramdem reported the influence of teaching characteristics on learning difficulties which includes the teaching methods, teacher enthusiasm and commitment and the pace and level at which information is presented⁵. Furthermore, surface learning difficulties have been reported to be influenced by factors like overload of work, students' perception of the relevance of the content, assessment processes requiring and rewarding reproduction of content, poor teaching, poor student teacher interpersonal relationship and lack of opportunity for self-management⁶.

Additional studies have investigated the effect on academic performance of age (Arulampalam et al. 2007)⁷, having a previous degree (Craig et al. 2004), the student's spoken language (De Champlain et al. 2006; Cuddy et al. 2007)^{8,9} and geographic origin (De Champlain et al. 2006), physical, emotional and mental health (Heat et al. 2002; Austin et al. 2007)⁹, social and economic factors (Cooter et al. 2004; Powiset al. 2007)^{10,11} and institutional effects (Arulampalam 2007)¹², but as yet the studies are too few and methodologically disparate to draw firm conclusions (Stephenson et al. Unpublished).¹³

In Pakistan different learning difficulties faced by medical students are English as a language of instruction creates problems, inappropriate student-patient and student-teacher ratio, lack of facilities for learning/teaching such as laboratory equipments, lack of healthy study environment^{15,16}. Further medical students are under stress because of ill-defined curriculum, lack of coordination between teachers and students and study burden.^{17,18} Moreover medical curriculum does not consider healthy needs of Pakistan, is not widely known, is not reviewed periodically and is not well-defined.¹⁹ Teaching in medical colleges lacks integration of basics with clinical sciences, is geared towards passing exams, stresses on theoretical knowledge with lesser emphasis on clinical training and does not consider students feedback²⁰.

But what of medical students' perceptions about the factors that influence their progression through medical school? To better understand the issues that they believe have affected their progress, we are going to carry out a research. The objectives of this study are to solve learning difficulties, capturing the factors possibly associated with academic performance to assist under-graduate medical educators in the development and delivery of appraisal, remediation, and support mechanisms for students.

OBJECTIVES:

The objectives of this study was to solve learning difficulties, knew the factors possibly associated with academic performance to help under-graduate medical educators in the development and delivery of appraisal, remediation, and support mechanisms for students.

MATERIALS AND METHODS:

Study Design: Cross sectional analytical study

Study Setting: ALLAMA IQBAL MEDICAL COLLEGE, LAHORE

Duration of Study: 4 Months (1st April 2014 to 31st July 2014)

Sample Size: Comprises of 300 students (150 from 1st year and 150 from 2nd year of Allama Iqbal Medical College)

Sample Technique: Simple Random Sampling

Sample Selection:

Inclusion Criteria:

- Students from 1st year and 2nd year MBBS
- Either Sex
- Regular Students

Exclusion Criteria:

- Supply Holders
- Detained
- Debarred Students
- Migrated Students

Data Collection and Procedure: Those students who fulfill the inclusion criteria will be selected for the study after an informed consent; data was collected by providing questionnaire consisting of close ended questions. The questions covered demographic details, questions about the learning difficulties, and questions related to the factors which adversely affecting their

learning like about their physical emotional and mental health, social and economic factors and institutional effects etc.

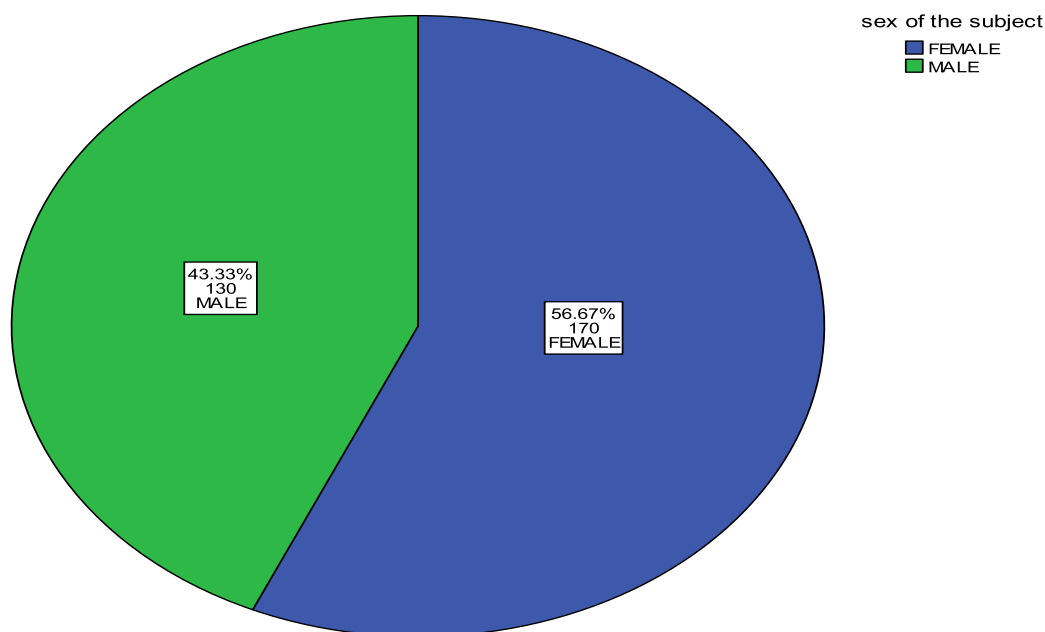
Data Analysis Procedure: Data will be entered and analyzed by SPSS version: 17. Percentage will be calculated. Result will be recorded as frequencies, percentage, mean and standard deviation. The variable associated with learning difficulties will be analyzed and will be adjusted for sex differences to establish the statistically significant factors. The differences will be considered significant at $p < 0.05$.

Results and Main Findings:

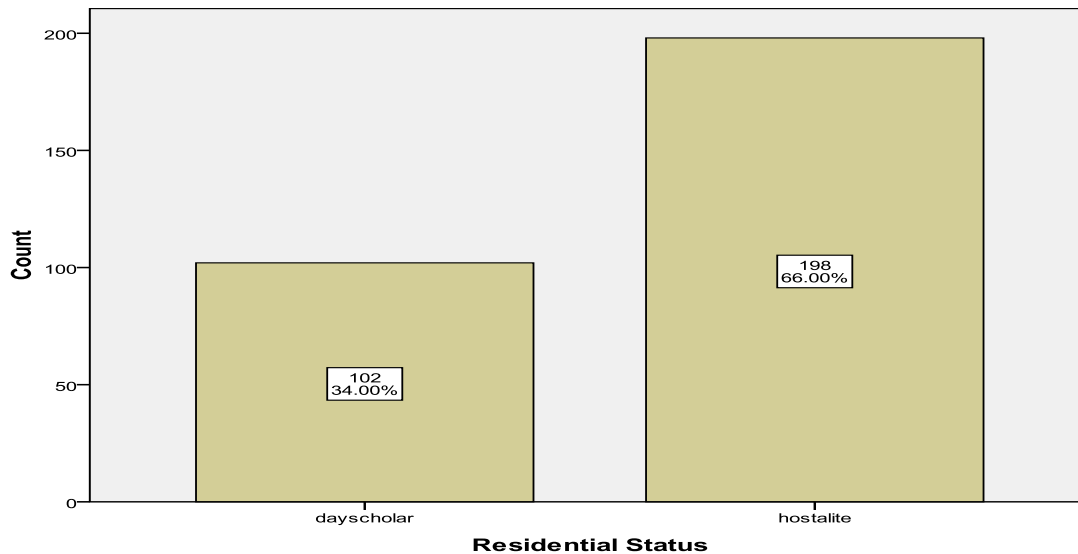
Statistics:

Table no. 1 Age of the subject

N	Valid	300
	Missing	0
Mean		18.69
Median		19
Mode		19
Std. Deviation		0.896
Minimum		17
Maximum		22



Graph no: 1 Gender of respondents



Graph no: 2 Residential status

Table no: 2 Perception academic Frequencies			
	Responses		Percent of Cases
	N	Percent	
Access to appropriate general academic support	209	16.70%	69.70%
Access to computing facilities and services	163	13.00%	54.30%
Internet facility is available	39	3.10%	13.00%
The college is well time-tabled	236	18.80%	78.70%
Support from college officers	242	19.30%	80.70%
The teachers are well prepared for the class	192	15.30%	64.00%
The teachers are good at providing feedback to the students	66	5.30%	22.00%
Difficulty in understanding teacher's language	108	8.60%	36.00%
Total	1255	100.00%	418.30%
a. Dichotomy group tabulated at value 1.			

Table no: 3 Perception Personal Frequencies			
	Responses		Percent of Cases
	N	Percent	
Comfortable in co-education	233	15.40%	77.70%
Able to manage my time.	183	12.10%	61.00%
Confident about my passing this year.	237	15.60%	79.00%
I feel I am being well prepared for my profession.	198	13.10%	66.00%
Able to memorize all I need.	66	4.40%	22.00%
Difficulty to memorize new medical terminologies	191	12.60%	63.70%
Difficulty in studies because of large syllabus	255	16.80%	85.00%
Encouraged to participate in the class	153	10.10%	51.00%
Total	1516	100.00%	505.30%
a. Dichotomy group tabulated at value 1.			

Table no: 4 Perception Teaching Environment Frequencies			
	Responses		Percent of Cases
	N	Percent	
Difficulty in understanding lectures because of too many students	249	50.00%	90.90%
The atmosphere is relaxed during ward teaching, lectures and tutorials	39	7.80%	14.20%
Comfortable with hostile environment (e.g. room, electricity, food)	120	24.10%	43.80%
Comfortable with my roommate	90	18.10%	32.80%
Total	498	100.00%	181.80%
a. Dichotomy group tabulated at value 1.			

Table no: 5 Perception academic*Gender Cross tabulation				
		sex of the subject		Total
		Female	Male	
Access to appropriate general academic support	Count	116	93	209
	% within sex	68.20%	71.50%	
Access to computing facilities and services	Count	91	72	163
	% within sex	53.50%	55.40%	
Internet facility is available	Count	24	15	39
	% within sex	14.10%	11.50%	
The college is well time-tabled	Count	138	98	236
	% within sex	81.20%	75.40%	
Support from college officers	Count	129	113	242
	% within sex	75.90%	86.90%	
The teachers are well prepared for the class	Count	105	87	192
	% within sex	61.80%	66.90%	
The teachers are good at providing feedback to the students	Count	43	23	66
	% within sex	25.30%	17.70%	
Difficulty in understanding teacher's language	Count	61	47	108
	% within sex	35.90%	36.20%	
Total	Count	170	130	300
Percentages and totals are based on respondents. a. Dichotomy group tabulated at value 1.				

Table no:6 Perception Personal* Gender Crosstabulation				
		sex of the subject		Total
		Female	Male	
Comfortable in co-education	Count	131	102	233
	% within sex	77.10%	78.50%	
Able to manage my time.	Count	100	83	183
	% within sex	58.80%	63.80%	
Confident about my passing this year.	Count	128	109	237
	% within sex	75.30%	83.80%	
I feel I am being well prepared for my profession.	Count	114	84	198
	% within sex	67.10%	64.60%	
Able to memorize all I need.	Count	33	33	66
	% within sex	19.40%	25.40%	
Difficulty to memorize new medical terminologies	Count	109	82	191
	% within sex	64.10%	63.10%	
Difficulty in studies because of large syllabus	Count	134	121	255
	% within sex	78.80%	93.10%	
Encouraged to participate in the class	Count	81	72	153
	% within sex	47.60%	55.40%	
Total	Count	170	130	300

Table no: 7 Perception Environment* Gender Cross tabulation				
		sex of the subject		Total
		Female	Male	
Difficulty in understanding lectures because of too many students	Count	133	116	249
	% within sex	85.80%	97.50%	
The atmosphere is relaxed during wardteaching, lectures and tutorials.	Count	15	24	39
	% within sex	9.70%	20.20%	
Comfortable with hostel environment (e.g. room, electricity, food)	Count	62	58	120
	% within sex	40.00%	48.70%	
Comfortable with my roommate	Count	47	43	90
	% within sex	30.30%	36.10%	
Total	Count	155	119	274
Percentages and totals are based on respondents.				
a. Dichotomy group tabulated at value 1.				

RESULTS:

300 subjects were included in the study, all were from 1st year and 2nd year MBBS classes of Allama Iqbal Medical College including both border and day scholars. Among those, 130 were males and 170 were females. Age varies between 17-22 years, mean of which is 18.69, median is 19.00, mode is 19 and standard deviation is 0.896. Study found that among those, 69.7% have access to appropriate general academic support, 54.3% have access to computing

facilities and services, internet facility is available to 13.0%, 78.7% says college is well time-tabled, 80.7% have support from college officers, 64.0% says teachers are well prepared for the class, 22.0% says teachers are good at providing feedback to the students, 36.0% have difficulty in understanding teacher's language, 77.7% are comfortable in co-education, 79% are able to manage the time, 66% are confident about passing this year, 69.0% feel that they are well prepared for their profession, 22% are able to

memorize all they need, 63.7% have difficulty to memorize new medical terminologies, 85.0% have difficulty in studies because of large syllabus, 51.0% are encouraged to participate in the class, 90.9% have difficulty in understanding lectures because of too many students in the class, 14.2% says that the atmosphere is relaxed during ward teaching, lectures and tutorials, 43.8% are comfortable with hostel environment (e.g. room, electricity, food) and 32.8% are comfortable with their roommate.

DISCUSSION:

In Learning Difficulties' there occur some difficulties in learning, reading and writing. In this research we study factors which cause the learning difficulties and found the internal and external factors which include nature nurture relation⁷. Internals are intrinsic to the individual, and can be for life-long, while external factors have much more effect than the internal ones as we deal all courses and teachers during our study. Study difficulties can be due to environment⁸.

As Marton found that learning difficulties are influenced by students' perception of the learning environment⁴. Ramdem reported about the teaching methods, teacher enthusiasm and commitment and the level at which the information is provided to the students⁵. All students do not have same caliber they perceive things according to their own mind⁶.

Learning difficulties can occur with any students so for finding what stress them most we find out the learning difficulties among the medical students of Allama Iqbal Medical College. For this purpose the sample of about 300 students were taken from 1st year to second year. Both male and female students were included in our research. A learning difficulty check list and specially devised questionnaire was used to collect the data.

Findings of the present study indicate that both male and female students have learning difficulties. Furthermore; females have more difficulties and stress than males.

While Perception about academy was satisfactory as students show less in appropriation in it¹⁵. But talking about personals they show little bit satisfaction especially in managing the time and in memorizing all the lectures they said study is too tough that if they try to manage all books they could not because they did not have enough time¹⁶. With Teaching Environment they were not satisfactory because they said that due to greater strength in class they could not focus the lectures perfectly atmosphere is not well. They do not

feel comfortable. In cross tabulation stage females were having greater problems than males¹⁷. As they faced more such problems as that of environment, hostel facilities, exam stress etc. So In Pakistan students faced different learning difficulties because of, lack of facilities for learning such as laboratory equipments¹⁸, lack of healthy study environment. Further medical students have stress because of, lack of coordination between teachers and students and study burden^{19, 20}. Moreover medical curriculum does not consider healthy needs of Pakistan.

CONCLUSION:

The study concluded that:

- Medical students face lot of problems during their whole course because of too many factors.
- Internal as well as external factors are the cause of these difficulties but external effects more than other ones.

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