



## COMPARATIVE STUDY OF THE RESULTS OF THE M.B.B.S 1ST YEAR STUDENTS OF ALL THE MEDICAL COLLEGES OF MADHYA PRADESH\*

### Anatomy

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### ABSTRACT

**Introduction:** First year medical students were taught Anatomy, Physiology, and Biochemistry. The Medical Council of India (MCI) provides common syllabus and examination patterns all over the country. The purpose of study is to compare the results of 1st year MBBS students in government and private medical schools. **Methods:** This was a retrospective analysis of examination results of the three subjects. MCI regulations suggests that a student must obtain 50% in aggregate with a minimum of 50% in Theory (written- Paper I and II) including viva voce and minimum of 50% in practical in each subject for a pass. **Results:** Passing percentage of students of government medical college is 78% while that of private medical college is 63%. Compartment percentage of government medical college students is 20.3% while that of private colleges is 30%. Distinction holder among passing students in government medical college is 14% while that of private medical college is 11%. **Conclusion:** In our study we compare the results of 1st year M.B.B.S students of both government and private medical colleges and it is surprising that instead of same medical education the performance of students of government medical colleges is better than that of private medical colleges.

### KEYWORDS

Academic performance, Anatomy, Biochemistry, Physiology, Medical students.

#### Introduction:

The science and art of treating patients and preventing disease are complex and multi-dimensional. Offering students rigorous, high-quality education and training in the science and skills involved in the provision of care is the goal of undergraduate medical education programs<sup>1</sup>. In India, undergraduate medical education system aims to contribute toward the training of non-specialized graduates to meet the health needs of the country. Undergraduate medical students in India enter the medical college after 17 years of schooling. In recent years, there has been a massive growth in the private medical education sector. India's large private medical education sector reflects the market driven growth in private medical education. Selection of students in India is based almost entirely on merits. In India there is one common exam for admission in medical colleges i.e. through NEET which is a multiple-choice examination covering physics, biology, and chemistry. Admissions are based almost entirely on the NEET score. In Madhya Pradesh, the students of Government medical colleges are the cream of the society who had obtained high marks in NEET, and they are considered to possess high intelligent capabilities. Private medical colleges admit students who are willing to pay high fees throughout their course irrespective of marks obtained in school. The standard of the medical education is looked after by Medical council of India. The undergraduate medical program is known as MBBS (Bachelor of Medicine and Bachelor of Surgery). It is a Five and half year's course including 1 year of compulsory Internship.

There are 14 Medical Colleges affiliated by Madhya Pradesh Medical University, Jabalpur Madhya Pradesh. This is inclusive of 6 Government and 8 Private Medical colleges located across the state. One of the main functions of this University is to conduct examinations and confer degrees to all undergraduates and postgraduates in Medical, Dental, AYUSH and Allied Health Sciences. Academic performance is in general the benchmark used to measure the success of an individual and the quality of education given in institution. First year medical students are taught Anatomy, Physiology and Biochemistry in 12 months period. These subjects are integral for clinical year training because medical students are supposed to apply and implement their knowledge during clinical practice<sup>2</sup>. The Medical Council of India provides common syllabus and examination patterns to be conducted (MCI regulations 1997). MCI Regulations suggests that a student must obtain 50% in aggregate with a minimum of 50% in Theory (written- Paper I and II) examination including viva voce and minimum of 50% in practical in each subjects to get pass<sup>3</sup>. Therefore, the objective of

this study was to assess the academic performance of the 1st year MBBS students of government medical college and compare with that of private medical colleges.

It is one of the unique studies with respect to the prospective of medical students and it's an area not yet explored in central India. So there was a need to do this study to obtain the relevant information.

**Aim:** Comparative study to evaluate the difference of the results of the 1st Year students of Government and private medical colleges of Madhya Pradesh.

#### Objective:

1. To access any difference in passing rate between the government and private medical college students.
2. To access the Distinction rate between the government and private medical college students in individual subjects.
3. To access the compartment rate between the government and private medical college students in individual subjects.

#### Materials and methods:

Place of study: R.D.Gardi Medical College, Ujjain.

**Type of Study:** Cross sectional

**Sampling method:** The results declared by Madhya Pradesh medical university Jabalpur of all fourteen colleges of first year MBBS student were included for the study.

**Inclusion criteria:** All the students appeared in exam conducted by Jabalpur University.

**Exclusion criteria:** The results of students which was withheld at the time of study.  
Methodology:

**Step1:** The students' results were collected from the database after the examinations for 1st year.

**Step2:** Out of total 1993, 1st year MBBS Students who appeared in the examination held in September, 2017, 1792 got their result declared and included in study. 201 students' results were withheld and hence excluded from study.

**Step3:** The data was entered into Excel sheet and analyzed by SPSS

16.0.

**Step4:** Pass percent, distinction and compartment were calculated for each subject. The results were analyzed and compared between Government and Private Medical Colleges.

**Methods of statistical analysis:** Appropriate tables, charts for depicting data. Chi square Test of significance.

**Result:** A total of 1993 students appeared for the examination in September 2017. Out of 1792 students, 1005 students were males, and 787 were females. About 777 were from Government colleges, and 1015 were from private institutions. Of the total students, 1254 students passed all three subjects as per the MCI regulations and 213 students failed in all three subjects and 463 students got the compartment. Total distinction holders in Anatomy are 73, in Physiology 33, in Biochemistry 57. Passing percentage of government medical college is 78% while that of private medical college is 63%. Compartment percentage of government medical college students is 20.3% while that of private colleges is 30%. Distinction holder among passing students in government medical college is 14% while that of private medical college is 11%.

**Table No.1- Master chart showing the details of results of all medical colleges of M.P.**

Medical college	Total Student	Male	Female	Pass	Fail	C. Anatomy	C. Physiology	C. Biochemistry	D. Anatomy	D. Physiology	D. Biochemistry
MGM Indore	147	86	61	127	6	6	6	8	26	2	12
GMC Bhopal	143	77	66	111	7	7	9	16	7	3	9
GRMC Gwalior	140	84	56	96	14	9	3	13	4	2	3
NSCB Jabalpur	149	89	60	116	8	6	14	18	7	0	0
SSMC Rewa	98	51	47	78	4	6	11	14	1	1	0
BMC Sagar	100	63	37	79	11	1	1	10	5	2	2
RDGMC Ujjain	128	74	54	97	12	12	5	13	3	6	5
CMC Bhopal	127	60	67	103	11	5	5	5	17	6	12
SAIMS Indore	119	66	53	86	17	4	6	15	1	0	3
SMC Guna	125	69	56	80	19	18	11	10	0	7	10
SMC Jabalpur	123	65	58	71	19	16	17	13	0	0	0
AMC Bhopal	123	63	60	53	35	22	14	18	0	0	0
AMC Dewas	145	86	59	83	24	13	15	26	2	2	0
MMS Indore	125	72	53	74	26	16	12	14	0	2	1
<b>Total Government MC-6</b>	<b>777</b>	<b>450</b>	<b>327</b>	<b>607</b>	<b>50</b>	<b>35</b>	<b>44</b>	<b>79</b>	<b>50</b>	<b>10</b>	<b>26</b>
<b>Total Private Mc-8</b>	<b>1015</b>	<b>555</b>	<b>460</b>	<b>647</b>	<b>163</b>	<b>106</b>	<b>85</b>	<b>114</b>	<b>23</b>	<b>23</b>	<b>31</b>

**Table: 2- Showing the no. of students both Pass and fail of all medical colleges.**

	Government College	Private College	Total
Pass	607	647	1254
Fail	50	163	213
Total	657	810	1467

X= 45.765

P value - 0.00001, the result is significant

**Table: 3- Showing the no. of students getting the distinction (D)**

	Government college	Private College	Total
Anatomy	50	23	73

Physiology	10	23	33
Biochemistry	26	31	57
Total	86	77	163

X= 15.0952

P value = 0.000527, the result is significant

**Table: 4- Showing the no. of students getting the compartment @.**

	Government college	Private college	Total
Anatomy	35	106	141
Physiology	44	85	129
Biochemistry	79	114	193
Total	158	305	463

X= 9.4064

P value 0.009066

**Discussion:** This is a first study from Madhya Pradesh reporting on medical students' performance in the final examination conducted by Jabalpur University Madhya Pradesh. In recent years, India and other South Asian countries have seen a large expansion of private medical education. Presently, 54% of all Indian medical schools are privately run, a trend that colleges are admitted based on a combination of test scores and their ability to pay high tuition fees.

In our study we compare the results of 1st year M.B.B.S students of both government and private medical colleges and it is surprising that instead of same medical education, same medical university all over M.P., standard MCI norms followed by all the medical colleges, the performance of students of government medical colleges is better than that of private medical colleges. All the parameters like the passing percentage and distinction in the subjects are better of government students when compare to private college students.

The reason behind this variation in the results can be multiple like the students those are admitted in government medical colleges are meritorious in the NEET exam. The government medical colleges have a large number of staff to give attention to large no. of students as compared to less number of faculties in private medical colleges.

**Conclusion:** Despite being same curriculum, MCI guidelines, tenure and mode of admission to medical college the students of government medical college perform well compare to private medical college. So it is need of time to find out the cause of this diversity and inculcate the guidelines to minimize this diversity between public and private college.

is likely to increase. There have been concerns expressed about the growing private sector in medical education in South Asia, that competition for students' fees and an ineffectual accreditation process have resulted in questionable admission practices, stagnant curricula, antiquated learning methods, and dubious assessment practices. Medicine is an extremely sought after professional education in India. More than a million students are expected to sit for the medical entrance test in 2016. All students answer a common test on which they are graded; these scores together weigh heavily to determine a student's success. In government medical college, these scores are often the only consideration; students who rank highest in these tests usually gain admission into government medical colleges. Some students with high scores, who do not gain admission into government colleges, may be admitted to private medical colleges as 'government quota students'. However a significant proportion of students in private medical

**Abbreviations:**

MGM Indore	Mahatma Gandhi memorial medical college.
GMC Bhopal	Gandhi medical college
GRMC Gwalior	Gajra Raja Medical college
NSCB Jabalpur	Netaji Subhash Chandra Bose Medical college Jabalpur
SSMC Rewa	ShyamShaha Medical college Rewa
BMC Sagar	Bundelkhand Medical college
RDGMC Ujjain	RuxmanibenDeepchandGardi Medical Colleges, Ujjain
CMC Bhopal	Chirayu Medical college & Hospital

SAIMS Indore	Sri Aurobindo Medical college & P.G. Institute
SMC Guna	Sakshi Medical College & Research Centre
SMC Jabalpur	Sukhsagar Medical college
AMC Bhopal	Advanced Institute of Medical Science & Research Center
AMC Dewas	Amaltas Medical College
MMS Indore	Modern Institute of medical science
C	Compartment
D	Distinction

Conflict of Interest: None

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