

Original Research Article

An Overview of the Opening of New Private DMLT/DMRT Institutions in the State Of Odisha

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Abstract: In today's era because of rapid growth in medical research and technology, one can hardly imagine a health care system without the contribution of laboratory technician. The laboratory analysis of blood and other body fluids play a definitive role both in the diagnosis and the treatment of disease as well as in routine preventive medicine. The educational requirement for a clinical laboratory technician has evolved over time and expansion of the scope of the field. Today in India after completion secondary education they are entitled for this course but due to lack of both government and private institutions they are unable to do the course. Our aim of study was to assess the number of institutions interested to run paramedical DMLT/DMRT courses in the state of Odisha, to identify gaps in regards to infrastructure, equipments and manpower in these new upcoming institutions and to suggest minimum standard requirements for establishment of an institution.

Keywords: DMLT/DMRT

INTRODUCTION

The history of clinical laboratory science dates back to 1896 when the first clinical laboratory was opened, 12 feet by 12 feet room equipped at a cost of \$50 at John Hopkins hospital [1]. The appreciation of laboratory testing was perhaps nil and many viewed clinical laboratories as an extravagant luxury that was sheer wastage in terms of time and space [2]. In today's era because of rapid growth in medical research and technology, one can hardly imagine a health care system without the contribution of laboratory technician. The laboratory analysis of blood and other body fluids play a definitive role both in the diagnosis and the treatment of disease as well as in routine preventive medicine. The educational requirement for a clinical laboratory technician has evolved over time and expansion of the scope of the field. Today in India after completion secondary education they are entitled for this course. The laboratory science technician as well as the radiographers deal with diagnosis, treatment and management of the patients using microscopes, specialized staining techniques, chemical analysis and highly sophisticated precision instruments and use of radiation emitting instruments.

The 2 streams of paramedical courses i.e. DMLT and DMRT courses are the most rapidly expanding health care fields. The volume of laboratory tests continues to rise due to introduction and development of new tests basing on new emerging and reemerging of diseases simultaneously there will be also excellent job opportunity for a vast chunk of the population. So that "our people" shall provide services to "our people" in Odisha. Further the proposed training programme in the institutions shall facilitate Self-employment cum income generation means for unemployed educated boys and girls of the locality who usually stop their education at plus 2 level or secondary education level. With this backdrop the study was conducted to have an overview of the opening of the new private DMLT/DMRT institutions who have applied to impart training to these students with a vision to cater to the health needs of the community.

OBJECTIVE

1. To assess the number of institutions interested to run paramedical DMLT/DMRT courses in the state of Odisha.
2. To identify gaps in regards to infrastructure, equipments and manpower in these new upcoming institutions.

- To suggest minimum standard requirements for establishment of an institution.

MATERIAL & METHODS:

Place of the Study: All the 30 districts in Odisha.

Study Subject: Institutions who had applied for govt. Affiliation to start a course in DMLT/DMRT

Sampling: There are 30 districts in Odisha and the entire state is divided into 3 RDC Zones i.e. north, south and central zones. The institutions that wanted affiliation from Govt. and also wanted to impart training in either of the courses or in both the courses were visited by our expert team.

Instruments Used:

- Pre-designed assessment Schedule to obtain general information about the institution.
- Schedule for availability of infrastructure, equipment and manpower in position.

- An assessment schedule was used as an instrument which was filled up by our experts from dept of Radiology, pathology and Microbiology dept from various institutions of our state. The institution was assessed on certain criteria like infrastructure, manpower, availability of equipments and instruments for which a scoring pattern was adopted. Each institution was assessed on particular criteria and accordingly a score was given by our scrutinizing team. Subsequent to the evaluation and the scrutinisation by our experts the institutions were declared as “qualified” or ‘not qualified’. The score of 190 was declared as a cutoff point. Those institutions having a score of 190 and above were eligible to participate in opening of the institution and to enroll students in the particular programme / course.

OBSERVATION

Table 1: Zone wise distribution of institutions

Sl. No.	North zone	Applied	Approved	South zone	Applied	Approved	Central zone	Applied	Approved
1	Angul	5		Ganjam	6	Lt-1	Cuttack	21	Lt-2 Rt-4
2	Deogarh	2		Gajapati	1		Kendrapada	4	
3	Bolangir	3	Lt-1	Nabarangpur	0		Jajpur	7	
4	Bargarh	0		Kalahandi	1		Jagatsingpur	5	
5	Dhenkanal	4		Kandhamal	1		Mayurbhanj	10	Lt-1
6	Jharsuguda	3		Boudh	0		Balasore	4	
7	Keonjhar	5		Nuapada	3	Lt-1	Bhadrak	6	
8	Sambalpur	4	Lt-1	Koraput	3		Puri	10	
9	Subarnapur	2		Malkangiri	0		Nayagarh	3	
10	Sundargarh	4	Rt-1	Rayagada	1		Khurda	51	Lt-4
	Total	32	3		16	2		112	11

Some of the institutions had applied both for DMLT/DMRT courses.

Table 2: General Information status of the applicants

Sl no.	Status of the applicant	DMLT Institution	DMRT Institution	Total DMLT/DMRT institutions
1	Individual	13	0	13(8.1%)
2	NGO	20	0	20(12.5%)
3	Society	41	9	50(31.25%)
4	Trust	51	11	62(38.75%)
5	PSU's	4	0	4(2.5%)
6	Private hospital	7	3	10(6.25%)
7	Others	1	0	1(0.63%)
	Total	137	23	160(100%)

A. In case of society or trust who have applied for opening of new institution, the Regd no. Date of Regd,

under which area of jurisdiction were to be submitted and the same was verified by the team of experts.. Also

the photocopy of the registration of Society/ trust along with the details of constitution / memorandum of the society/ trust was to be submitted.

B. In case of private hospitals as an applicant for opening of an institution, (i) whether the hospital had valid license under the clinical establishment Act. (ii) if so the date of issue of the licensure by the appropriate authority.(iii)Whether the CE had valid license or not.

C. In case of individual who wanted to obtain govt. recognition, income tax return for the previous 3 financial years was to be submitted. Besides this the name of the proposed hospital was to be given by the institution where the students would undergo practical training for which the consent letter from the institution was necessary.

Table 3: Availability of Existing Infrastructural Facilities

Sl no.	Types of Facility	No. of Institutions having the facility
1	Institution having own building	31(19.38%)
2	Availability of adequate Potable water supply	57(35.63%)
3	Availability of uninterrupted electric supply	31(19.38%)
4	Availability of gas supply	9(5.63%)
5	Availability of proper waste disposal system	11(6.88%)
6	Adequate ventilation	33(20.63%)
7	Adequate lighting	27(16.88%)

The minimum requirement for opening of DMLT school is that the institution should be established in its own building or in a rented building (documentary evidence is required in case of a rented building.)The institution must provide adequate ventilation lighting

facilities and maintain good hygiene condition. The institution must have adequate number of toilets separately for teaching staffs and for male and females students.

Table 4: Information regarding Administrative area and academic area (Infrastructure Requirement)

Sl.no	Details	No	Area in sq feet	Total area	No. of institutions fulfilling the requirement
1	Classroom (to be furnished with sitting arrangements, black and white board ,LCD Projector)	2	700	1400	35(21.88%)
2	Laboratory	1	800	800	40(25%)
3	Library (furnished with chairs , tables, almirahs, other fixtures)	1	500	500	05(3.13%)
4	Students common Room (separate for boys and girls)	2	600	600	15(9.38%)
5	Faculty room	1	200	200	20(12.5%)
6	Principals 'room	1	150	150	17(10.63%)
7	Toilets (separate for boys and girls)	2	400	400	05(3.13%)
8	Rooms for technicians	1	200	200	09(5.63%)

Table 5: Human Resource requirement for DMLT/DMRT course

Sl no.	Total No. of institutions	No. of institutions having Adequate Staff present
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1	160	11(6.9%)
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Table 6: Lab equipment requirement for DMRT/DMLT course

Sl no.	Total No. of institutions	No. of institutions having Adequate and appropriate instruments and equipments
1	160	14(8.75%)

RESULTS:

Remarks from the inspectors were recorded and accordingly scores were given based on different parameters whether equipments / instruments were available, partially available or not available. Similarly the infrastructural facilities in regards to academic and administrative blocks were also taken into consideration. Human resources were essential for opening of new educational institutions. Table 1 shows zone wise distribution of institutions. 10 districts are under each RDC. So, 30 districts are divided into 3 RDC Zones. In north Zone, 32 institutions had applied whereas only 3 qualified. In south zone 16 had applied and 2 qualified. In central zone 112 applied but only 11 qualified.

Table-2 depicts general information status about applicants. Majority i.e. 62(38.75%) of the applicants who had applied for the new institutions were having a Trust followed by society in 50(31.25%) institutions. Table-3 depicts that only 57(35.63%) of the institutions had potable water supply. Proper waste disposal system was present in 11(3.88%). Adequate ventilation was present in 33(20.63%) of the institutions. Adequate lighting was present in 27(16.88%) whereas uninterrupted electric supply was found in 31(19.38%) of the institutions.

Table-4 reveals the gap analysis done in administrative and academic blocks in regards to infrastructure. 35 (21.88%) of the institutions fulfilled the criteria that the classroom was furnished with sitting arrangements black and white board, LCD projector and display screen. Laboratory area was present in 40(25%) of the institutions. Regarding library only 5(3.13%) of the institutions had well equipped library. Separate common rooms for both boys and girls was present in 15(9.38%) of the institutions. Table-5 shows that 11(6.9%) of the institutions had adequate staffing pattern. Table-6 reveals that 14(8.75%) of the institutions had adequate and appropriate instruments and equipments.

SUMMARY AND CONCLUSION:

Details of information about the facilities available in the institution and the attached hospital (investigation and diagnostic centre) in terms of manpower, equipment and infrastructure were verified and scores given to each institution based on our self-assigned scores on different aspects of infrastructure, manpower and equipments. Out of 160 institutions, 16 institutions fulfilled the minimum standard requirements and the institutions had the scores above 180. Health care system is backed and managed by qualified professional, doctors, nurses and technicians. There are some institutions which have vast exposure in the field of investigation / diagnostic sector and are operating to take care of hundreds of patients yet with unavailability of sufficient space and infrastructure to accommodate the DMLT/DMRT training of aspirant students. These paramedical streams are complementary to medical sciences. The medical lab technicians play an important role in collecting information, sampling, testing, reporting and documenting information [3, 4]. Similarly the students involved in diploma certificate in radiology should have the knowledge, cognitive skill required to radiograph the selected anatomical region. The need of educated and professional radiological and laboratory technician in hospitals and clinics are increasingly continuously [5]. In order to meet the health needs of the community the doctor population ratio is 1:1000 and we need to prepare future manpower for paramedical needs for globalization of education and health care in India because without paramedics the health care industry will come to a standstill .

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