



## Students Perception of English and Medical Terminology Training as a Part of Curriculum

**Dr Atul Manoharrao Deshkar**

Associate Professor and Head, Department of Physiology, Coordinator Medical Education Unit, Chhattisgarh Institute of Medical Sciences, Bilaspur CG India. Fellow GSMC FAIMER, Secretary, IMA college of General Practitioners, Chhattisgarh State.

**Dr Akshataa Atul Deshkar**

Demonstrator, Department of Physiology, CIMS Bilaspur

**Dr Supriya John**

Assistant Professor, K J Somaiya College of Physiotherapy, Mumbai.

**Dr Sumeet Tripathi**

Associate Professor in Physiology, Govt Medical College, Rajnandgaon, CG

**Dr Prakash BM**

Department of Clinical Pharmacology, Faculty of Medicine Jazan University, Saudi Arabia

### ABSTRACT

*Background: In the medical colleges where students are predominantly coming from tribal area, linguistic skills are one of the major problem in imparting medical education.*

*Most of students coming to Chhattisgarh Institute of Medical Sciences, Bilaspur are from vernacular medium till their higher secondary, learning and understanding medical physiology in English medium becomes one of the major hurdle for the students after joining medical education.*

*The MCI is a statutory body that deals with the establishment of norms and standards for the Medical Education in India. These standards include the requisites for a proper infrastructure and other necessities for the smooth running of the undergraduate as well as the post graduate courses in Medicine. Couple of aspects that need to be crucially considered are medium of the instructions and changes in curriculum. The present study was intended to evaluate the students perspectives for proposed change in curriculum by Vision 2015 and to prepare and propose a module to be followed for poor performer due to lack of linguistic skills. Inclusion of the module in medical English and terminology will be helpful in improving the performance of poor performers in university examination*

**KEYWORDS :** Linguistic skills, vernacular, poor performer

### Introduction

The MCI is a statutory body that deals with the establishment of norms and standards for the Medical Education in India. Today, India has the highest number of medical colleges in the world. The most significant challenge for regulatory bodies like the Medical Council of India has been to balance the need for more medical colleges with the maintenance and improvement of quality standards. The globalization of education has decreased the difference between rural and urban, bringing more and more tribal and rural students in the scenario. But as the language of medium being the English in all the medical colleges in India, those coming from the vernacular background faces difficulties in understanding, expressing and communicating, reflecting thus affecting overall performance. Medical Council of India should go for Curricular reforms to systematically address these issues and develop strategies to strengthen the medical education and health care system for newer Indian Medical Graduate to match or better the international standards.

As suggested by Vision 2015 document to take the initiative in the areas of linguistic skills development Department of Physiology at Govt Chhattisgarh Institute of Medical Sciences Bilaspur CG has come up with the innovative program in collaboration with Foundation for advancement in International Medical Education and Research GSMC FAIMER Regional Institute project to include classes of the Medical Terminologies for the students from vernacular medium. Our team wanted to evaluate the perception of the students from central India for these one of the proposed curricular change by Medical Council of India

As a part of process of establishing a Linguistics Skills Development Laboratory at Department of Physiology sensitizing the faculty in the Institute and in the state for this proposed changes, Department came up with concept of giving few extra classes in Medical Termi-

nology and Medical English for the students facing linguistic challenges, this was pilot study in this tribal region, to assess students perception regarding forthcoming change.

### Materials and Methods

A clearance was obtained from Institutional Ethical Committee for the proposed study. A batch of students admitted to CIMS in 2012 was taken into consideration, it comprises of 100 students, all of them were involved in study.

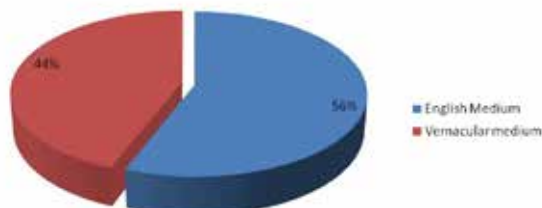
After one month of training in Physiology a test was carried out to evaluate the status of performance output in understanding of Physiology. At the same time students were explained about linguistic skills development program. Students perception was assessed by premodule questionnaire which was prepared developed and validated in Department of Physiology.

All the students were exposed to English and medical terminology module by taking their extra classes on weekend, 40 hours of classes spread over a period of five months. At the same time students were asked to present seminars on the topics in physiology to improve their speaking skills

Lectures were followed the pattern of Jazan University, KSA. English Grammar Basics, Communication Skills, Concept of Root word, Prefixes, Suffixes, Concept of Combining form and medical terminology followed in different body system viz. Haematology, Lymphatic and immune system, digestive, Cardiovascular and Respiratory System etc were taught as an integrated approach. At the end of program post module test was done to assess performance output in physiology and perception of the students to make this module as a part of curriculum in the first professional MBBS either as optional, elective or as

extracurricular activity.

English and Vernacular Medium students in the Institute

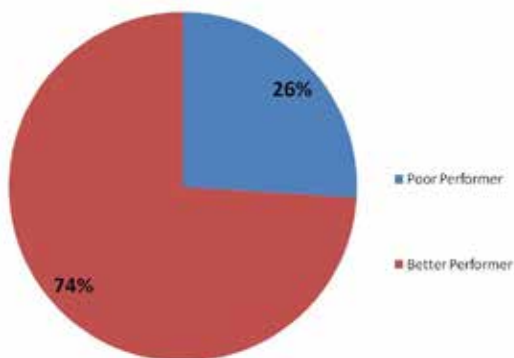


A pie chart showing percentage of English and Vernacular Medium students in the Institute

**Evaluation of the results and impact of the study:**

In Indian system of medical education mostly assessment process is summative and based on short-answer type questions. It mainly tests the ability of students to memorize and reproduce factual information, and here linguistic skills contribute significantly. In our study 56% students were from English medium and 44% were from vernacular medium. Pre and post module Questionnaire analysis revealed facts regarding perception of students for linguistic skills development program carried out at CIMS. In both pre and post module questionnaire 98% students opined that understanding written and spoken English is essential for medical graduate. Before conduction of module 95% agreed to fact that the students from vernacular medium faces more problem in understanding the medical terminologies and medical English, while this percentage was 98% after conduction of module while rest 2% were neutral. Before start of module 96% students expressed willingness and 4% were neutral for addition of extra classes in English and medical terminology, while after module all (n=100) of them agreed to the fact. Before module, 94% agreed that workshops, seminars symposium and coaching for how to write and speak in scientific manner will make the medical graduates better but after attending sessions all of them were of positive mindset in favour of module. Before module 88% said this type of training will reduce the stress amongst student, 10% were neutral while rest 2% disagreed to it, there was no significant change in opinion even after module. Before module 94% expressed that training can improve the performance output in university examination, opinion remains unaltered even after module. Before module 91% of students accepted that this training is going to improve the performance of poor performers and the findings were same for post module too. Around 97% expressed that the module can be even useful to improve communication skills too.

Poor performer and Better Performer in Physiology

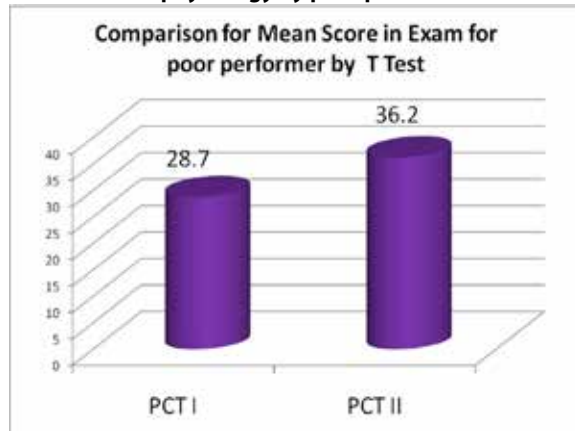


A pie chart showing percentage of poor performer and better performer in study.

Out of 100 students seven students remained absent in either before or after examination (n=93). Analysis on the basis of performance

output in physiology for comparison of the differences between scores of before and after module done. It was observed that although performance was improved in after (t= 7.62) the difference was not statistically significant (p >0.05). But when comparison was done for the poor performer (t =4.86) the difference was very highly significant (p< 0.001).

A graph showing comparison for scores before and after module test in physiology by poor performer



When comparison was done for performance in before and after test by Wilcoxon Signed Rank test (z= 1.12) the performance although improved in second test the difference was not statistically significant (P > 0.05) Out of 26 poor performer 5 were excluded due to absenteeism, when rest 21 analyzed Wilcoxon Signed Rank test revealed (z =3.51) very highly significant differences (p < 0.001)

Table showing the Wilcoxon Signed Rank Test amongst poor performer (N=21) amongst premodule and after-module performance in Physiology test

| Mean | SD         | Z value and significance |
|------|------------|--------------------------|
| 28.7 | PCT I 6.4  | 3.512                    |
| 36.2 | PCT II 5.4 | Significant              |

**Feedbacks from students:** It was observed that 90% students felt Linguistic skills development program made physiology more simpler and understandable and improved performance output in viva voce and written examination. But only 82% agreed that it has any role in improving the skills in practical. Regarding confidence level 90% expressed that module made them more confident, and 94% expressed that it helped to develop rapport with teacher. Regarding addition of this module in the curriculum 98% expressed that this should be a part of curriculum but opined that should be on optional basis for needy students.

**Perception of students who experienced module :** Students expressed that apart from linguistic skills development there should be training in computer, management too. Some students found attending seminars, interactive sessions and preparing for project made learning physiology more interesting and increased the understanding of other subjects too. Students supported the content of module and wished that there juniors should also be benefited with same.

**Opinion of faculties:** Faculties in the department felt it helped to develop their own skills and will like to be part of it next year too. This is how we are developing resource person in this arena in our own department.

**Discussion:** The stress incidence in medical students in this institution in India is high and is negatively affecting their mental well-being.<sup>4</sup> The stress is specially more when they have change in environment of junior college to medical college specially in first MBBS. Giving training in the linguistic skill development like training in medical terminology and english for those from vernacular medium will

going to benefit the medical student and those students having poor skills in local language if trained for it will be of benefit to society. As in few other part of developing world as observed in Jazan University KSA special emphasis is given for training in medical terminology and language skills by scheduling lecture in this area. Apart from these training in computer skills, communication and presentation skills will definitely refine the Indian Medical graduate of next generation. Small group teaching and inclusion of OSPE, PBL in curriculum will benefit students. The use of PBL varies between medical schools; some have completely switched their curriculum to PBL whereas others have used various hybrid approaches between PBL and traditional lecture based learning (LBL).<sup>5</sup>

**Conclusion:** In the medical colleges where students are predominantly coming from tribal area, linguistic skills are one of the major problem in imparting medical education. Inclusion of the module in medical English and terminology will be helpful in improving the performance of poor performers in university examination, and will give the society more confident, efficient medical graduates who while working in tribal region will be effectively communicating with medical fraternity to provide better medical care to society.

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