



# A Statistician's perspective on Re-Orientation Of Medical Education in Medical Curriculum

Senthilvel Vasudevan 

Assistant Professor of Statistics (Biostatistics), Department of Community Medicine, Sri Venkateshwaraa Medical College Hospital and Research Centre, Ariyur, Pondicherry, India.

## Abstract

**Background:** Re-Orientation of Medical Education (ROME) is an essential and important part of medical education. Biostatistics play an important role in medical field research. In this article, I have discussed the reorientation of medical education, statistician's role in it, what would be taught in that program and its importance.


**Materials and Methods:** Total number of students of 7<sup>th</sup> semester are divided into 4 groups. Each group selects their own topic. After that, they discussed the related topic and from the proposal to their research/study. Before going to the field to collect the data, the group leaders went to the respective study areas to get the proper permission from the concerned authorities.

**Results:** The group of students have arranged health education, drama, quiz, awareness programmes, and treatment on a small scale in the study areas. Small problems/sufferings are treated in the camp and major problems have been referred to medical college hospital. Statistician trained the medical students in various aspects under ROME posting. Students were prepared their final report submitted in the Department of Community Medicine after the final approval by the Head of department.

**Conclusion:** In this article, I have concluded that this type of ROME posting is very useful and increases the visibility of the medical students. Automatically, research and its usefulness are increased among the medical students in their career. All medical colleges come forwarded to implement this ROME posting in their medical colleges.

**Keywords:** reorientation of medical education, medical students, statistician, medical education, medical curriculum

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## Introduction

Re-Orientation of Medical Education (ROME) [1] is an essential and important part of medical education. It was implemented by the Srivastava Committee in the year 1977. [2] Biostatistics play an increasingly important role in many aspects of teaching Biostatistics and its applications in medical field research. Nowadays, the National Medical Commission (NMC) implemented practice in rural health centre to the Intern (Compulsory Rotating Internship) medical students. This type of ROME postings is followed by very minimal number of medical colleges in India. But this programme is mandatory for the undergraduate medical students in their studies. It will give exposure to the medical students in research and its methodology.

## Implementation of ROME among medical students in teaching medical college

In this programme, the total no. of students of 7<sup>th</sup> semester are divided into 4 groups. Each group selects their own topic. After that, they discussed the related topic and from the proposal to their research/study. Then, they presented their proposal in front of the Head of Department, faculties in-charges, and other faculties of the Department of Community Medicine. By this way, they have rectify/modify their proposal and as well as the research questionnaire. Students are also to be trained with respective questionnaires. After finishing these steps

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all the 4 groups are ready to go their respective study areas and collect the data from the households/schools/individuals in 24 x 7 hours.

### Getting prior permission from the authorities

Before going to the field to collect the data, the group leaders went to the respective study areas to get the proper permission from the village head/thalaiyari/village administrative officer/school principal/headmaster to conduct the studies in their respective villages/schools.

### Data collection by the medical students

Data collection would be initiated/started by the 7<sup>th</sup> semester students from the respective fields under the supervision of the faculties of Department of Community Medicine, Postgraduate students, Interns, Social Workers, and Staffs nurses of the respective rural and urban health centers of the department by using the respective college buses/vans. PG medical students are checking all the filled proforma/questionnaire at the end of each day evening. Is there any missing information, and data in the approved questionnaire that is to be rectified then and then or on the next day itself. Simultaneously, the students have entered the data in Microsoft Excel sheet for analysis purposes. Statistician/Biostatistician role is very important in each at every step of ROME. Statistician role is remarkably very important in this ROME posting. At the time of data entry, students have got any difficulties or doubts or miss understandings that will be sorted out by Statistician/Biostatistician/Assistant Professor of Statistics/Biostatistics then and there to them. This process will be continued up to achieve their calculated sample size or exceed due to their availability of time/day.

### Conducted awareness programmes and camps by medical students in the study areas

The group of students have arranged health education, drama, quiz, awareness programmes, and treatment on a small scale in the study areas. Small problems/sufferings are treated in the camp itself and the major problems have been referred to the medical college hospital. This type of action is based on the severity of the problem in the community of the respective study areas. If the study is based on school children, then the awareness programmes have been conducted in the school with prior permission have obtained from the secretary/principal/concern authority. Sometimes small gifts are also distributed among the students for their enthusiasm or involvement or interest or attraction. Road show is also conducted by the students with the involvement of the school students/respective community people by issuing pamphlets to some communicable/non-communicable diseases related to their research topics.

### Statistician role in ROME posting program

After finishing the data entry in the excel spreadsheet then the Statistician/Biostatistician has trained the medical students in an elaborate way. The students are to be trained in the way of how to check the excel sheet? How to find the missing data in the sheet? How to formation, testing of hypothesis and how to find the confidence interval in medical research? [3] How to import the excel sheet to SPSS (Statistical Package

for Social Sciences) software? How to do the statistical analysis by using the software? other important steps like hypothesis fixation, results writing, and interpretation of the analyzed data. [4, 5]

### Submission of final report of ROME in the department

Next step to prepare the final rough reports of their respective studies and submit with the concern teaching faculties of Department of Community for initial verification. After this checking by the respective faculties, then finally checking by the HOD of Community Medicine. Finally, all the 4 groups of students have prepared their respective final reports and submitted them to the department. [5] The HOD had fixed a day for a final report seminar for the 4 groups in front of the Medical Director and other departments' faculties. At that time, any questions have been raised by anyone that is to be cleared by the respective group of students. There are 4 prizes for the 4 groups. Select a group as a winner of 1<sup>st</sup> 2<sup>nd</sup> 3<sup>rd</sup> and 4<sup>th</sup> prizes respectively based on their presentation among 4 groups. So, all 4 groups would get the appreciation from the HOD and department faculties. By this way also improve the involvement of the medical students and increases their research knowledge and as well as no. of research in medical field. [6]

### Conclusion

I have concluded that this type of ROME posting is very useful and increases the visibility of the medical students. Automatically, research and its usefulness are increased among the medical students in their career. Biostatistical tools and their applications are very useful to medical students in their higher studies and as well as in their profession also. Nevertheless, all medical colleges come forwarded to implement this ROME posting in their medical colleges and universities to improve the medical students' research knowledge and techniques.

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Here, SV – Senthilvel Vasudevan

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