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ROME: a tool to train under graduate medical students as community health care providers

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ABSTRACT

Background: Re-Orientation of Medical Education (ROME) program is relatively a new teaching and learning method for undergraduate medical students which enables them to achieve the knowledge and skills to provide effective community health care. Objective of this study was to find out which of the various activities that were carried out during the ROME posting helped them to achieve the required knowledge and skills to provide effective Community Health Care.

Methods: A descriptive study was conducted among 101 undergraduate MBBS students who participated in the ROME posting under the Department of Community Medicine of a medical college in Puducherry. Predesigned and pretested questionnaire was used to get the feedback regarding the various teaching-learning methods applied during this ROME posting which was carried out for one full month and about various activities that were carried out by the students such as clinical examination, data collection, data entry and analysis, development of IEC materials and their administration, organizing medical camps, maintaining drug inventory, sanitation campaign and report writing under the supervision of Intern, PG and faculty.

Results: “Learning through performing individual tasks” was the most popular teaching-learning method. “Conducting survey” and “data entry” were the most sought after activities by the students.

Conclusions: ROME posting helps in motivating undergraduate medical students to apply the principles of comprehensive approach towards various medical problems and thereby fulfill the ultimate aim of creating efficient Community Health Care Providers.

Keywords: ROME, IEC materials, Community, Health education, Medical camps

INTRODUCTION

As per the 48th World Health Assembly recommendations all the medical schools develop and apply more appropriate education methods, research and service delivery, including preventive and promotional activities to improve their contribution to changes in the health care delivery.¹ Different studies carried out in India have shown that the Medical education is compartmentalised and often delivers complex material through traditional didactic lectures and does not allow positive learning

which covers cognitive, affective and psychomotor components.² Due to this, medical students in India possess commendable knowledge in medical science but suffer setbacks in demonstrating clinical skills and during problem solving.³ Further if the medical education is research oriented, the students will not only gain knowledge but also learn the clinical skills and research methodology.^{4,5}

As an attempt to follow the recommendations of 48th World Health Assembly, Reorientation of Medical

Education (ROME) was introduced for undergraduate medical students at a tertiary care teaching institute in South India about 12 years ago and since then it has been carried out regularly every year.⁶⁻⁸ Every year the ROME posting is planned on a specific community based problem. In 2015, the focus was on Community Profiling with the objective to assess the health status of the population residing in the field practice area and to sensitize the medical students on the concepts, principles and methods of community diagnosis in a field setting and to plan and implement appropriate community intervention.

Community profiling involves building up a picture of the prevailing conditions, needs and resources of a community with the active participation of the community.⁹ Community profile can illustrate the makeup of a community and could include information about the diversity within the community, their history, social and economic characteristics, how active people are and what social services and infrastructure are present and are utilized.

Community-based education is an approach that aims to prepare students for future professional work at the community level. Community-based education has been introduced in many medical schools around the world, but evaluation of its instructional quality has remained a critical issue. Instructional quality should be measured based on a program's outcomes. The aim of this study was to find out students' attitudes towards ROME posting and whether it helped them to achieve the required knowledge and skills to provide effective community health care.

METHODS

A descriptive study was carried out among the Undergraduate Medical Students who took part actively in the ROME posting in the Department of Community Medicine. We attempted to summarize the experience of students during ROME posting period based on feedback they have given at the end of the posting. A total of 125 MBBS students who were posted in the Department of

Community Medicine for one month (1st February 2015 to 28th February 2015), were involved in community profiling of a rural community situated in Kanchipuram district of Tamil Nadu which is a field practice area of Rural Health Training Centre (RHTC) under the Department of Community Medicine of a tertiary care teaching institute. Students took part in the collection of relevant socio-demographic data, clinical examination of the community members, health education programs including sanitation drive and conducting medical camps with the guidance and assistance of Interns, Postgraduate students and Faculty.

The predesigned and pretested students' feedback questionnaire developed by the faculty of the Department of Community Medicine was used to elicit the students views, perceptions and expectations about the various activities such as clinical examination, data collection, data entry and analysis, development and administration of Information Education and Communication (IEC) materials, organizing free medical camps, maintaining drug inventory, sanitation campaign, report writing as well as different teaching-learning activities that were carried out during ROME posting. Students' response for each question were noted in a 1 to 5 point Likert scale (1=very poor, 2=poor, 3=good, 4=very good, 5=excellent) to assess the students' views, perceptions and expectations about the various activities that were carried out during the posting. Out of the total 125 medical students who participated in the ROME posting, 101 students volunteered for this study.

Statistical analysis

The collected data were entered in Epi Data 3.0 and analysis was carried out by SPSS 20.0. Frequencies and proportions were calculated for the discrete variables.

RESULTS

Out of a total of 125 students, 101 students gave feedback at the end of the ROME posting and this information was analysed to know the students' experiences and expectations from the ROME posting.

Table 1: Feedback from students on teaching and learning methods.

Teaching & Learning Method	Response by students (N=101)				
	Very Poor N (%)	Poor N (%)	Good N (%)	Very Good N (%)	Excellent N (%)
Individual task	3 (2.97)	2 (1.98)	31 (30.69)	42 (41.58)	23 (22.77)
Group task	5 (4.95)	4 (3.96)	26 (25.74)	41 (40.59)	25 (24.75)
Student Role play	3 (2.97)	7 (6.93)	38 (37.62)	38 (37.62)	15 (14.85)
Group presentation	7 (6.93)	8 (7.92)	33 (32.67)	35 (34.65)	18 (17.82)
Group discussion	8 (7.92)	8 (7.92)	48 (47.52)	26 (25.74)	11 (10.89)
Lecture classes	11 (10.89)	25 (24.75)	45 (44.55)	15 (14.85)	5 (4.95)

*Figures in parenthesis represent row percentage.

Table 2: Feedback on activities conducted during ROME posting.

Various activities	Response by students (N=101)				
	Very Poor N (%)	Poor N (%)	Good N (%)	Very Good N (%)	Excellent N (%)
Conducting survey	2 (1.98)	3 (2.97)	35 (34.65)	41 (40.59)	20 (19.80)
Data entry and analysis	1 (0.99)	4 (3.96)	31 (30.69)	31 (30.69)	34 (33.66)
Health education	3 (2.97)	3 (2.97)	30 (29.70)	34 (33.66)	31 (30.69)
Report writing	4 (3.96)	3 (2.97)	33 (32.67)	40 (39.60)	21 (20.79)
Medical camps	5 (4.95)	3 (2.97)	20 (19.80)	40 (39.60)	33 (32.67)
Preparation of IEC	1 (0.99)	8 (7.92)	34 (33.66)	37 (36.63)	21 (20.79)
Clinical examination	2 (1.98)	10 (9.90)	41 (40.59)	31 (30.69)	17 (16.83)
Awareness rally	4 (3.96)	9 (8.91)	36 (35.64)	27 (26.73)	25 (24.75)
Carrying out sanitation drive in villages	5 (4.95)	12 (11.88)	31 (30.69)	24 (23.76)	29 (28.71)
Drugs inventory	8 (7.92)	10 (9.90)	33 (32.67)	30 (29.70)	20 (19.80)

*Figures in parenthesis represent row percentage.

This study clarified that ROME provides information and experience regarding the community based learning and teaching. Majority of the students felt that ROME posting is a good academic experience to learn about the community and also to improve the clinical and communication skills. The different teaching and learning methods employed during the ROME posting were “student role plays”, “Group discussions”, “lecture classes”, “learning through group tasks”, “individual tasks”, “group presentations” and “performing individual tasks”. These different teaching-learning methods were individually assessed by using a Likert scale. Table 1 shows that “learning through performing individual tasks” was the most popular of all the above mentioned teaching-learning methods with 95.05% of the students grading as good, very good and excellent. Teaching and learning through lecture classes was the least popular method.

The different activities conducted during the ROME posting included, conducting of survey in the villages, clinical examination of the study subjects, health education, preparation of IEC materials, organizing medical camps, maintenance of drug inventory, organizing and participating in awareness rally, participating in cleanliness drive, data entry and analysis and report writing. Table 2 shows that, of all the activities that were carried out during the ROME posting, 95.04% of the students grading as good, very good and excellent for conducting survey and data entry and analysis. Maintaining the drug inventory and carrying out sanitation drive in villages were the least popular activities.

DISCUSSION

Taking into the consideration, the current health status and the socio demographic characteristics of India, it is clear that there is a growing need to bring the changes in the medical curriculum to ensure that the medical doctors adopt the comprehensive approach towards the health conditions.¹⁰ World Health Organization formulated the

“Re-Orientation of Medical Education (ROME)” with an aim of improving the health status of the poor (especially those in rural areas) and also train the Medical students as effective Community Health care Providers, by making the changes in their curriculum.¹¹ The ROME posting for undergraduate medical students at the tertiary care teaching institute addressed in this study is designed to encourage the students to look at the existing health problems not only from the curative aspect but also apply the preventive and promotive concepts thereto provide a holistic care.

This study is based on the “ROME” posting whose objective was to inculcate the comprehensive outlook towards the health of the community among the undergraduate medical students which is similar to the objective of “Community based Medical Education” as described by Igumbor et al.¹² The findings of this study show the students’ preference to different teaching-learning methods and various activities carried out during ROME posting such as survey, clinical examination, health education etc.,. It was also observed that the training given to the medical students during ROME posting at the tertiary care teaching institute mentioned in this study is similar to the training given to the medical students at All India Institute of Medical Sciences during “Orienting Undergraduates to Community Health (OUCH)” as described in the study by Krishnan et al.¹³ In the study by Krishnan et al, it was mentioned that the students were posted in “Orienting Undergraduates in Community Health (OUCH)” posting with the objective of getting trained in Health care delivery model in rural India, applying the epidemiological concepts, managing the patients within the context of their families. Similarly, during ROME posting, the medical students are trained to understand the different concepts of epidemiology through conducting the surveys, data entry, data analysis and presentation of the results, planning and conducting the interventions like medical camps, developing the relevant Information Education Communication (IEC) materials etc. Different types of activities were conducted to train the students and results shows that the students

were more interested for learning in small group, similar to previous studies conducted in the same institute.¹⁴⁻¹⁶

In this study, it was found that, of all the different activities that were carried out during the ROME posting, "conducting survey" and "data entry and analysis" were most popular with maximum percentage of the medical students opting good, very good and excellent on Likert Scale. Similarly in a study on the usefulness of ROME posting by Chauhan et al, it was shown that there was significant increase in the knowledge level among undergraduate medical students as per the feedback received from them regarding the data entry, analysis and report writing, which clearly shows that students were interested in the above said activities.⁶

Based on the feedback that was given by the undergraduate medical students, it was clear that the Department of Community Medicine has successfully encouraged the students to inculcate the comprehensive outlook towards the health of the community and thereby become "effective community health care providers". The training during the ROME posting helped the students not only in gaining academic knowledge but also helped them evolve as better individuals with compassion.

CONCLUSION

It is advantageous to teach the medical students through the practical oriented approaches like ROME where the students are not only gaining the required theoretical knowledge but also are given first hand practical experience. This helps in motivating them to apply the principles of comprehensive approach towards various medical problems and thereby fulfil the ultimate aim of creating the "effective community health care providers" who are very much needed for our country.

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Conflict of interest: None declared

Ethical approval: The present study was the part of Re-Orientation of Medical Education posting of UG medical students, which is an educational activity in medical curriculum

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