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RESEARCH ARTICLE

REORIENTATION OF MEDICAL EDUCATION: IMPLICATIONS AND CHALLENGES. A SEWAGRAM EXPERIENCE FROM INDIA

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ABSTRACT

Background: The Reorientation of Medical Education (ROME) Program has been adopted by World Health Organization. The implementation of ROME in spite of its visible and tangible benefits has not been possible in most of the medical colleges in India. The Mahatma Gandhi Institute of Medical Sciences (MGIMS), Sewagram, is one of the exceptions where ROME programme is being implemented since last fourty years. The present study is an attempt to understand the student's perspectives and learning during the reorientation of medical education programme.

Methods: The quantitative data was collected with a questionnaire with banks of questions regarding perceptions and knowledge gained during the ROME Programme using a five-point Likert scale. This was done before and after the programme. This utility scale was administered at end of the ROME camp. The Weighted mean and consensus was calculated for both scales. The pre and post programme weighted mean and consensus were analysed using students paired t test.

Results: There is significant difference between weighted means of scores regarding Knowledge about implementation of national health programmes, research methodology Sessions on personal development before and after the camp. There is no significant difference in weighted mean scores of the students before and after camp. (P=0.0746) regarding the knowledge of clinical skills.

Conclusion: To conclude ROME programme is an effective tool to bring about much needed shift in the focus in medical education. The ROME programme could be revitalized in all medical colleges in India.

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INTRODUCTION

World Health Organization long back emphasized urgent need to make medical education programme relevant to the professional competencies and Re-orientation of Medical Education Program has been envisaged as a tool to achieve it. The Government of India responded in 1977 by launching the 'Re-Orientation of Medical Education' (ROME) scheme to impart community-oriented training to medical undergraduates in primary health care. Over the period from 1977 to now, almost all medical colleges ceased its implementation. The implementation of ROME in spite of its visible and tangible benefits has not been possible because of lack of faculties, expertise on part of medical teachers, lack of time, lack of money and lack of planning by the teaching faculties in the medical colleges in India (Government of India, 2011). Few colleges in spite of all the odds, have been successful in implementing and sustaining reorientation of medical education strategy till now. The Mahatma Gandhi Institute of Medical Sciences (MGIMS), Seagram, is one of the exceptions. This institute has continued to implement the ROME camp for medical undergraduates with contextual modifications. With time, ROME camp was also modified to align it with the recommendations of the Medical Council of India[5]. The present study is an attempt to understand the student's perspective of training under reorientation of medical education.

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MATERIALS AND METHODS

Study setting: This study has been conducted at the Rural Health Training Centre, Bhidi, which is a peripheral centre of Department of Community Medicine, MGIMS, Sewagram, Wardha. The study was undertaken at the end of the 12-day ROME camp in January, 2012. The study participants were the group of 61 final year medical undergraduates participating in the ROME camp.

About the process of Reorientation medical education Camp at MGIMS Sewagram: Every year ROME camp, 12 days of duration, residential in nature is organized by Department of Community Medicine, MGIMS for the pre final year Medical students. The dates for the camp are finalized with the consensus of students and faculty of department of Community Medicine. This is a residential camp where the entire batch resides at Rural Health Training Centre 45 km away from the mother institute in the rural vicinity. One faculty from the departments is assigned to be In- charge of the camp who is responsible for smooth teaching process at the camp. The supported by post graduate students, interns and paramedical staff including social workers and ANMs of the department. Faculty from clinical departments are available for the camp during the day as per their schedule. The schedule of the camp comprises workshop on community diagnosis, research methodology, use of research soft wares. The field visits to Anganwadi centres, sub centre, Primary Health Centre, Rural Hospital are scheduled. Students get an opportunity to interact with service providers in public health system at all levels of hierarchy as District Health officer, Additional District Health officer, Child Development Programme Officer, Block Development Officer, Polio Surveillance Medical officer, RNTCP Tuberculosis officer, Councillors in National AIDS Control Programme, Coordinators of different Non Governmental Organizations serving in the area to ANM, ASHA and Anganwadi worker. They also interact with community based groups like Self help groups of females and Kishori Panchay at of adolescent girls. The Students also attend field clinics where cases are presented by students at the homes of the patients to the different specialist. The sessions on soft skills like communication skills, empathy and team building are also arranged for the students. The students also get an opportunity to indulge in school health education through display of charts, posters and sit presentation on different health messages. The teaching learning tools those are used are small group activity, task based learning, problem based learning, educational games, educational videos and brainstorming. At the end of camp they present their research project and reflections of the learning in presence of senior faculty members from Department of Community Medicine.

Data collection methods: The quantitative data was collected with a questionnaire with banks of questions using a five-point Likert scale. Two teaching faculty members of the Department of Community Medicine designed the questionnaire. After obtaining informed consent at start of camp, all medical undergraduates were asked to take the self administered questionnaires to grade their knowledge in various aspects on five point Likert scale. (1 No knowledge/ Skill2Some knowledge/Skill 3.Average knowledge/ skill 4 Good knowledge/skill 5. Very good knowledge/ skill). This scale was administered before and after the completion of educational program me. There was one another questionnaire that asked the respondents to rate the components of the camp based on their utility on five point scale (1 Not useful 2 Slightly useful 3 Can't say 4 Useful 5 Very useful). This utility scale was administered at end of the ROME camp.

Table 1. Weighted mean and consensus of the students learning before and after ROME camp

		Pre camp		Post camp		P value
		Weighed mean	Consensus	Weighted Mean	Consensus	
	Knowledge of public health system and social determinants of health					P<0.0001df:5
1.	Health care infrastructure in India	1.9	79.5%	3.5	76.5%	
2.	Approaches of community mobilization for health	1.7	76.1%	3.5	70.92%	
3.	Knowledge regarding implementation of national health programmes	1.8	74.7%	3.6	73.3%	
4.	Role of socio-cultural practices and environment in etiology of disease	2.1	73.0%	3.6	78.1%	
5.	Understanding the treatment seeking behaviour of family	1.7	72.9%	3.8	75.9%	
6.	Health-related believes/ practices in village	2.3	70.0	3.6	80.3%	
	Clinical Skills					P=0.0746 df 1
7.	Socio-clinical history taking	1.6	74.8%	3.5	65.4%	
8.	Assessment of nutritional Status (through anthropometry)	2.0%	75.9%	3.5	65.5%	
	Research Methodology					P=0.019 df:2
9.	Understanding of coverage evaluation survey methodology	1.3	78.8%	3.3	69.7%	
10.	Data collection in the field	2.2	76.0%	3.6	71.0%	
11.	Data entry, analysis and presentation of survey findings	2.2	76.6%	3.6	71.1%	
	Personal Development					P=0.0021 df 3
12.	Communication skill	2.1	77.1%	3.5	78.7%	
13.	Skills to work in a team	2.4	66.7%	3.9	78.9%	
14.	Understanding self strength and weaknesses	2.4	58.1%	3.5	79.1%	
15.	Empathy	2	58.6%	3.7	82.7%	

Table 2. Students perception of usefulness of different component of the ROME camp

S.No.	Items	Weighted Mean	Consensus
1.	field clinics	3.8	67.1%
2.	Visit to different health facilities (AWC, Sub center, PHC & RH)	3.9	61.8%
3.	Community based research	4	65.3%
4.	Lecture/ Group Discussion on National Health Programme	3.2	53.7%
5.	Interaction with community based organization and community health workers	3.6	51.8%
6.	Personal development sessions	3.8	56.3%

Data analysis: The weighted means and consensus % were calculated for both questionnaires. The pre and post weighted mean and consensus were calculated.

Students t test was applied to know the significant difference in the learning.

RESULTS

Socio Demographic Profile

Among 63 students, 51% (n=32) were girls and 49% (n=31) were boys.50% students belonged to state of Maharashtra whereas 50% students belonged to states other than Maharashtra. 2 students belonged to North east states. 50 % students haled from urban population whereas 50 % respondents belonged to rural population. 82% (n=52) students were comfortable with the venue and duration of the camp. Whereas 18% (n=11) students felt that the duration should be increased to 15 days. 15% (n=9) students expressed their discomfort in having to stay at RHTC and suggested that they would have preferred to travel from the mother institute. Table 1 suggests that there is significant difference between weighted means of scores regarding Knowledge regarding implementation of national health programmes, Role of social determinants of health before and after ROME camp.($p<0.0001$)

Clinical Skills: There is no significant difference in weighted mean scores of the students before and after camp. (P=0.0746)

Research Methodology: The knowledge and understanding regarding research methodology showed a significant difference before and after the camp. (P=0.019)

Skills of Personal Development: The Sessions on personal development were also found to be effective as the difference in the weighted means before and after the session was found to be significant. (P=0.0021)

As Table 2 suggests most of the components of the camp were considered as useful by students. Students found community based research to be most useful (weighted mean 4) followed by visit to different health facilities (weighted mean 3.9). On the utility scale lectures on national health programmes were considered as least useful (weighted mean 3.2).

DISCUSSION

The present study is an attempt to understand the student's perspective of training under reorientation of medical education. There was a significant improvement in the knowledge regarding research methodology, public health system and social determinants of health. The sessions on personal growth that included communication skill, empathy and team building were also had significant impact on the learning of the students. Most of the components were perceived as useful by the students. Community based research was considered as most useful by most of the students with weighted mean of 4 on 5 point scale and consensus of 65% of students. Lectures on national programmes were viewed as least useful with weighted mean of 3.2 with consensus of 53% of student. As per Nathan *et al*. (1998) medical students during graduation do not get an exposure to research methodology. Failing to which research aptitude is not developed in the embryonic doctors in India. ROME program can provide a potent platform for undergraduates to develop their research potential. Abbas Bazargan *et al*. (2015) have proposed a problem based approach in medical education. ROME being a community based prograame provides ample opportunity for problem based learning. A study of 44 Indian medical colleges undertaken by the Indian National Institute of Health and Family Welfare (NIHFW) during 1988-89 revealed that, regrettably, the goals of the Health for all initiative were forgotten in curriculum planning. Dongre *et al*. (2010) also had conducted similar study in similar setting in year 2009 and the findings are consistent with this study. In both studies it has been consistently revealed that community based, task oriented and small group teaching and learning are favoured by the students. In both studies it is revealed that students have a weak preference towards lecture based education session. Chauhan *et al*. (2013) also concluded in their evaluation of ROME programme that it is possible to impart a change in knowledge and attitude of medical students toward community based learning and research methodology. The study expresses a positive attitude of medical students for providing community based primary health services in rural areas. This finding is also consistent with the findings in the current study. Senthilvel Vasudevan *et al*. (2015) in their evaluation of ROME programme found a significant rise in the understanding of research methodology. This finding again is in accordance with the current study.

World federation of medical education has consistently emphasized need to reorient medical education. It has focussed need to shift to problem based and community based learning with focus on preventive and promotive health. The soft skill training of medical students like communication skills, working in a team, empathy is consistently being discussed in various forums. (WHO 2014) A doctor's role has not been limited as care giver only but with increasing complexity of medical profession he has to deliver as community leader, team builder as well while coordinating with other emerging speciality. As has been seen in the present study the session on personal growth/soft skills are not only perceived in positive light but the training has shown statistically significant response. As consistently put forth on various platform, there is a growing need to shift the emphasize in teaching and research from disease to health, from hospital to community based teaching, from cure to prevention and promotion and from solo practice to team work. To materialize this Medical Colleges would have to work in full partnership with health services in planning an implementation of programme for community health intervention. This strategy also demand a radical shift in the ways physicians are trained. (General medical council, 1991) The strategy of ROME fulfils this promise of bringing about the much appreciated shift in medical education. The approach of problem solving in medical education (Barrows and Tamblyn, 1990) has been mentioned in the document of Doctors for tomorrow by WHO. This approach emphasises a student centred and a task based approach which is a deviation from conventional class based and teacher centred approach in medical education. The ROME programme is pivotal in its student oriented, task based approach. This approach serves the purpose to develop critical thinking and problem solving skill of physician that would help them serve the society better.

The medical education traditionally has remained international in its focus. At times it misses the contextual and geographical sensitization of medical students. This lack in the training makes the physicians incapable of understanding and serving the society to full of their potential. This lack in the training could be bridged through ROME scheme. Every country can build their own syllabus of ROME specific and contextual to their country. The public health is being confronted with newer challenges with socio-political changes. Globalization, urbanization, global warming, epidemiological shift towards

non communicable diseases, enhanced expectancy of life, increased prevalence of natural and artificial disaster including terrorism, epidemy of mental illnesses are some of these challenges. Medical curriculum need to be modified and contextualized accordingly. The concept of ROME does offer enough space and opportunity to train the embryonic physicians along these lines. The present study attempted to understand the perception of medical students regarding various component of ROME programme. With this formative exploration, the ROME programme could further be strengthened and be more contextualized according to present public health challenges

Conclusion

The medical education and medical faculties need to come back to basic principles of health care by emphasizing ROME strategy. Medical education need to strike a balance between primary and tertiary health care, cure and prevention of disease, hospital based and community based learning, teacher focussed and student centred learning to meet the goal of Health for all. ROME programme is successful tool to achieve this balance and it could successfully be revitalized in all medical colleges in India.

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