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ROLE OF COMMUNITY BASED LEARNING IN CREATING SELF-DRIVEN LEARNING AND RURAL BIAS AMONG MEDICAL UNDERGRADUATES

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ABSTRACT

Introduction: Currently medical education is dominated by examination and product oriented didactic lecture sessions in most of the medical schools. Innovation in medical education is required to reorient current medical curricula. **Objective:** The present study aimed to explore the scope of community based learning at village set-up in creating self driven learning and rural bias among medical undergraduates. **Methods:** Using a village posting, students were made aware of community needs through social mapping, transect walk and discussion on various issues pertaining to rural health. A triangulation of qualitative methods like free list, pile sort exercise and focus group discussion was undertaken to understand the perception of students regarding various teaching methods. **Results:** Student could notice existence of different teaching methods: classroom based didactic lecture, OHP/PPT guided session, group discussion, problem based learning, field visit based learning, port folio driven learning and community based learning. Community based learning, problem based learning and filed visit guided learning motivated students towards self-driven learning and created a sense of rural bias among them. However, competitive examination oriented lecture sessions were cited as poor teaching methods and fail to motivate them. **Conclusion:** Community based learning has the potential of creating self-driven learning among medical undergraduates

Key words: Community based learning, Medical education, Pile sort analysis

INTRODUCTION

The role of innovation in medical education is becoming increasingly important and it will be vital for all nations to reorient their education systems.¹ Advances in the learning sciences have expanded our understanding of how student's learning and how the mind converts information into useful knowledge.² Indian education system is based upon British colonial legacy: educational levels, curriculum frameworks, physical structure of colleges and classrooms, and timing of examinations.¹ The education system is characterized by didactic

teaching, individual work, a product oriented approach, absence of

independent thinking, and presence of unquestioned obedience to authority.³ Skill building in research methods is increasingly being seen as integral component of medical education, and community based learning can be one of them.⁴⁻⁵ Garg⁶ and Narayanan⁷ have already described the role of community based teachings in creating rural bias among medical undergraduates and social revolution.

The teaching model of Mahatma Gandhi Institute of Medical Sciences (MGIMS), Sewagram is based on Gandhian ideology. The institute aims at evolving a pattern of medical education suitable for developing countries. To orient the students and provide them with a

personal experience of rural life, ‘Social Service Camp’ is held in a village adopted each year for the purpose for a period of 15 days. During this period, first year medical students are asked to stay in the village under the guidance of faculty of Community Medicine. They carry out health, sanitation and nutrition surveys.⁸ The theme for the 2008 batch medical undergraduates camp was ‘Community Based Learning’. The aim was to explore the scope of community based learning in creating self driven learning and rural bias among medical undergraduates.

MATERIALS AND METHODS

Study setting: The current study was undertaken during ‘Social Service Camp’ organized for 2008 batch of medical undergraduates at Pulai village of Wardha district, Maharashtra with a total population of 846 and 217 households. Students were oriented about socio-demographic profile of the village and community needs using different Participatory Rural Appraisal tools and techniques and utility of community based learning cum research in rural development. Preparation of self portfolio and discussion on topics ranging from rural health, gender bias, and leadership among doctors was undertaken. Students participated in social mapping, did transect walk to have better understanding of rural community. In addition, they did anthropometric measurements of 0-20 years age group population and dietary survey in one allotted families. They also participated in microbiological and pathological sample collection for the entire village which extended till management of positive cases in the village.

Information collection: These were carried out at the end of the Social Service Camp. A triangulation of qualitative methods like free list, pile sort exercise⁹ and Focus Group Discussions (FGDs)¹⁰, which are useful to explore the perceptions of students regarding better teaching-learning methods was undertaken. Initially, students (n=64) were asked to individually enlist the various teaching

methods they have observed during the camp posting. Later, 9 various types of teaching methods (Figure 1) with relatively high Smith’s S value were pile sorted. In pile sort exercise, 12 purposively selected students, who were willing to participate and talk freely, were individually asked to form the groups of these 9 methods which they felt went together. This was followed by 4 FGDs, consisting of 6-8 students for each session (both boys and girls), to understand perception and attitude towards different teaching methods. These FGDs were facilitated by a faculty of Community Medicine using semi-structured guidelines and note taker (post graduate of Community Medicine) recorded all discussions. The numbers of FGDs were decided by saturation point i.e. where it stopped yielding any new information. The facilitator encouraged the participants to freely exchange their perception and experiences related to various teaching methods. The sampling technique adopted for the present study was purposive with maximum variance.

Data analysis: A two dimensional scaling and hierarchical cluster analysis was completed with pile sort data to get collective picture of their perceptions. The analysis of free list and pile sort data was undertaken using Anthropac 4.98.1/X software.¹¹

RESULTS

Various teaching methods which students could observe to be in practice during their initial six month career as medical undergraduates including current camp posting in decreasing order of frequency are: classroom based didactic lecture sessions, sessions using overhead projectors (OHP)/power point presentations (PPT), and group discussion (GD); which are mostly examination oriented. To a lesser extent they could also observe the existence of problem based learning (PBL), field visit guided learning and learning through community based posting, especially during this camp. Community based learning as per their experience has triggered among them need for exploration of social issues related to health

and disease, and has been able to create a sense of rural bias and better understanding of disease process. Portfolio aimed at self driven learning revealed ‘what they want to learn?’ ranging from personal hygiene, communication skills, geriatric care, nutrition, environment and sanitation to health care delivery at village level.

Examination oriented study however, they feel has failed to motivate them to explore the core need of the community. Most of the classroom based lecture sessions they observe are curriculum guided and do not address the needs of the rural poor. Such competition oriented curriculums are often examination oriented and record book or theoretical knowledge aimed. Community based learning, portfolio guided study and PBL were recognized as better learning methods; whereas examination guided didactic lecture sessions, sessions using OHP/PPT were cited as poor teaching methods. However, they also mentioned that institutional credibility played an important role in establishing such teaching-learning setting at village level.

In pile sort exercise, four major groups of teaching-learning methods were formed. The first major group comprised of better ones comprising of community based learning, PBL and field visit guided learning. Students felt that, these should be encouraged in medical institutions to promote rural health and also they found them interesting and better methods to understand the Community Medicine subject. The second group of portfolio based learning and GD was considered to be better during initial days of the professional course to guide their future career. Remaining groups of classroom based didactic lecture sessions, and OHP/PPT guided sessions; and examination oriented study, they commented to be the inferior ones which do not serve the purpose of learning and rather demotivate the students and creates a picture of casualness on part of a teacher. (Figure 1)

DISCUSSION

In the present study, usefulness of various teaching methods has been re-invented. Need for innovative learning methods in medical institutions; like learning through community based posting, PBL and learning through filed visits has again been well established. On the other hand, lecture guided teaching sessions, which currently is being practiced in most of the medical schools has been viewed as one of the negative factor and demotivate students. Medical teaching in developing countries aims to impart skills to students to critically appraise evidence, promote, prevent, and manage health in the community.⁹ Community based learning has been shown to have the potential to motivate students to appreciate the learning process with greater community involvement.¹²⁻¹³

In the present formative research, the ‘Social Service Camp’ approach and application of community based posting to learn social issues and appreciate self-motivated learning as an effective method has been well established. The attribute can be because of their continuous presence in the rural community for a descent period and better interaction with the community. Dongre et al¹⁴ has already well documented role of community based study in motivating students for self-driven learning. The teaching approach in such camps is an integration of task oriented assignments, integration of social sciences within medical domain and active involvement with the community. Notably, the student centered educational innovation is not quite evident in Asia as seen in other parts of the world.¹³ Students reported that examination oriented teaching are ineffective in guiding them towards self-driven learning. This has again reiterated that most of the medical schools in Asia have traditional, teacher centered and hospital based education which fail to produce complete doctors required for the rural poor.^{15,16} Few researchers also feel medical curricula should formulate flexible syllabus rather than a rigid one, but this has not been

popular and on the contrary created lot of issues rather than solution.⁵ Research particularly at community set-up has also been used as a tool to teach epidemiology in some medical schools in India.¹⁷ Self-driven learning thus should be promoted to guide medical education in resource poor developing countries to cater for the rural masses in better way.¹⁸ Such self-driven learning can be facilitated through community based learning.

CONCLUSION

Community based learning is one important teaching method which has the potential of creating self-driven learning among medical undergraduates, and is better compared to classroom based lecture sessions or similar other examination oriented teaching methods. Community based learning at village set-up promotes rural bias among medical undergraduates and should be incorporated in current medical curricula.

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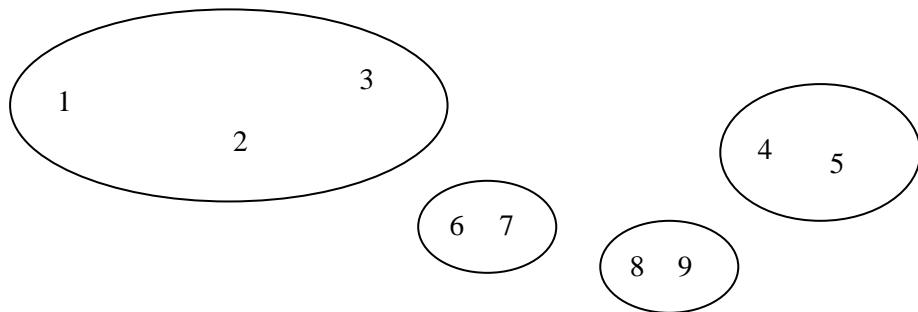
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Figure 1: Perception of medical undergraduates regarding various teaching methods: Two dimensional scaling and hierarchical cluster analysis



1-Community based learning
2-Problem based learning
3-Filed visit guided learning

6-OHP /PPT guided session
7-Didactic lecture session

4-Port folio based learning
5-Group discussion

8-Competition based study
9-Examination oriented study