



PROCESS DOCUMENTATION OF COMMUNITY DIAGNOSIS POSTING IN A TEACHING MEDICAL INSTITUTION: LEARNING THE PROCESS OF COMMUNITY BASED LEARNING OF MEDICAL UNDERGRADUATES

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ABSTRACT

Introduction: Sensitizing medical undergraduates about rural health through village health survey during their posting in Community Medicine has the potential to trigger active learning by medical students. In this context the present study was conducted to document the community diagnosis posting of medical undergraduates in a teaching medical institution and understand the process of learning of medical undergraduates.

Methodology: Present series of community diagnosis postings were organized in nearby villages of a tertiary care teaching hospital in Pondicherry during Jan-June 2014. The students performed village transect walk, village health survey with pre-decided themes, focus group discussion followed by organization of a health camp.

Results: Students were able to appreciate importance of demography in epidemiological research and felt rural health needs. They also learnt the local language. Students learned about different research methodology through hands-on experience and were exposed to various computer and statistical softwares. Their attendance also increased in subsequent classes. The students understood importance of communication skills by maintaining good rapport with villagers. Their organizing skills, leadership qualities and documentations skills improved drastically followed the postings.

Conclusion: It is possible to sensitize medical students to rural health through community diagnosis postings. Involving students to community health is the need of the hour to encourage active learning and trigger their leadership and organizing qualities, in addition to developing their documentation skills.

Key words: Community based learning, Community postings, Medical students, Village health survey

INTRODUCTION

Villages form the backbone of India with more than 70% of India's population residing in villages where medical professionals limit their ser-

vices for various reasons. [1] Some of the explanations cited being low revenue, substandard housing, insanitary environment, less educational facility for their children etc. According to Medi-

cal Council of India, the goal of undergraduate teaching programme is to create an 'Indian Medical Graduate' possessing requisite knowledge, skills, attitudes, values and responsiveness, so that (s)he may function appropriately and effectively as a physician in the community. [2] Sensitizing medical undergraduates about rural health through village health survey during their posting in Community Medicine could be a reasonable step towards this goal. [3]

Community based learning as against classroom centred lectures provide better opportunity to understand the real world scenario, which creates better prospect to practical learning. The students are more exposed to various disease presentations in the community, which is rare in hospital based learning. Beside this, they learn the socio-clinical horizon of various diseases as compared to 'only clinical picture' of these diseases in hospital settings. [4] World Health Organization's medical education reform module also focuses on training medical undergraduates in rural settings with an expectation to create their interest in rural health. [5]

OBJECTIVES

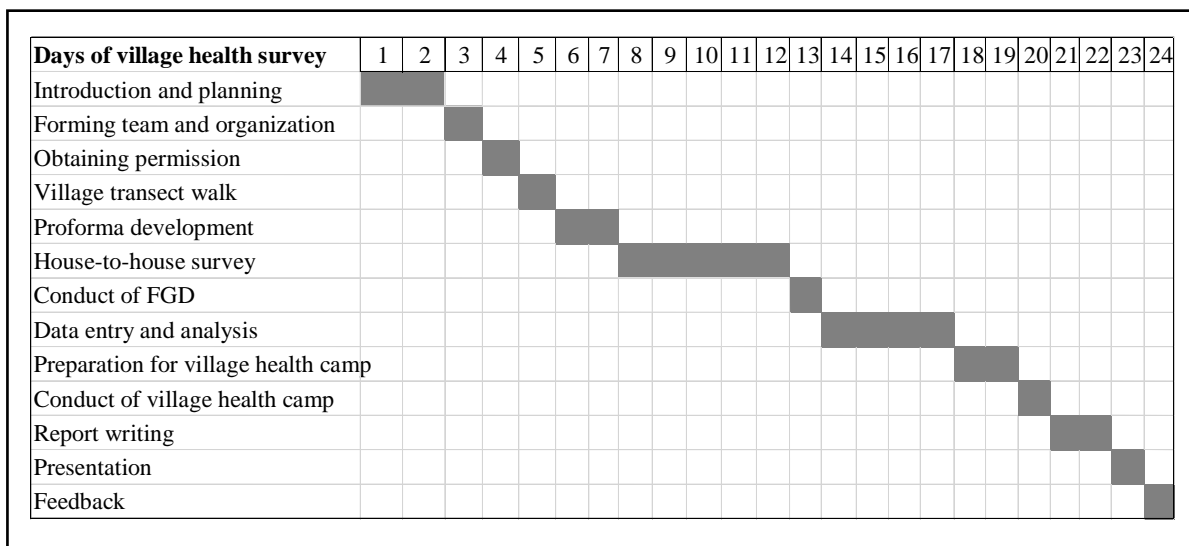
1. To document the community diagnosis posting of medical undergraduates in a teaching medical institution in Pondicherry.
2. To understand the process of learning of medical undergraduates during community diagnosis posting.

METHODOLOGY

Setting: The present series of community diagnosis postings were organized in nearby villages of a tertiary care teaching hospital in Pondicherry. During the process, 127 medical undergraduates during their second year of medical profession (third semester) were posted in the Department of Community Medicine for a period of four weeks. The students were posted five batches, with each batch consisting of approximately 25-30 students. Each batch of 25-30 students were allotted a different village during community diagnosis postings.

Initially, students were appraised about rural health and given orientation regarding the process of community diagnosis. During the entire posting, the students were supervised and guided by team of two faculties and two postgraduates from Department of Community Medicine, apart from active support from medical social worker, who was a permanent member of the team. The posting was conducted with prior permission of the Dean of the institution, apart from written permission from the village Head and local police authority for any unforeseen incidents. The village anganwadi worker and ANM posted in the nearby sub-centre were also informed. All the logistics needed for the posting, including transportation were provided by the institution. For feasibility, villages within 10 kilometres distance (30 minutes travel time) and with population less than 2500 were selected for a particular batch of students.

Figure 1: Gantt chart of community diagnosis posting by medical undergraduates



Transect walk: Specific themes were given to each batch of students during each posting, for example adolescent health, child health, geriatric health, life style disorders, reproductive health etc. Students did a transect walk (systematic walk along a defined path/transect across the community/project area together with the local people to explore the living and environmental conditions by observing, asking, listening, looking and producing a transect diagram) and identified core issues pertaining to rural health and identified key issues related to theme for their posting. According to the theme and their observation during the transect walk, students were guided to develop a proforma for the village health survey considering core issues of rural health to which they were sensitized at the beginning of the posting.

Data collection procedure: For feasibility, students were divided into groups of 2-3 during the survey. Using the pre-designed proforma, the students collected information by house-to-house survey covering entire village. It took approximately 15-20 minutes to fill one proforma, and each day they spend nearly 2-3 hours for the survey. Information related to socio-demographic and environmental background, individual health history and history related to the theme of the posting were collected from each family and individual. The students also collected specific village related information like, existing health institutions and health administration in the village, transport facilities, spiritual and cultural forces operating in the village.

Data entry and analysis: Once the survey was over, the students were given hands-on training on EPI.Info version 6.0 computer software (developed by Centre for Disease Control and Prevention, Atlanta, USA and World Health Organization, Geneva, Switzerland; available freely in public domain) for data entry and analysis. Students were facilitated for the data analysis and they observed the health picture of the entire village in the form of numbers, percentages, and proportions and as graphs.

Health camp: To encourage students towards rural health and involve them actively into the process of community diagnosis and also as was demanded by the villagers, a health camp was organized by the students with full cooperation from the medical college, village and local health authorities. Students sought and obtained permission for the health camp from the Dean, Medical Superintendent, village Head, local police

authority and nearby PHC as well. Consultants from various departments like, general medicine, surgery, paediatrics, obstetrics and gynaecology, ophthalmology, ENT, dermatology, dental etc. were invited to participate in the health camp. The students were encouraged to actively plan, organize, conduct and report the entire health camp. As a part of the camp, health education was imparted by the students on different topics. The topics were selected where there was lack of knowledge in health related aspects.

The students were encouraged to enter patients' particulars directly in Microsoft excel computer programme during the health camp for immediate analysis and presentation. The students made power point presentation of their experience during the community diagnosis posting and about the health camp, process of survey and their findings at the end of posting for each batch. At the end of each posting feedback regarding the posting were also obtained.

Role of Medical Social Worker (MSW): Throughout the community diagnosis posting, medico social worker accompanied the students in accessing the villages and houses, towards building rapport with the villagers and other officials. Logistic arrangements were also facilitated by the medical social worker. The MSW guided the students for seeking permission from the village heads and also facilitated smooth conduct of the health camp. Medical social worker helped undergraduates in motivating the villagers to participate in the health camp.

The process of learning by undergraduates: Community diagnosis postings are naturalistic research where students are involved in village health survey in natural setting. Students participated actively and enthusiastically during the village health survey. Previously students were only exposed to didactic lectures and hospital based learning. During the community diagnosis posting, students experienced learning being and within the community. They were induced towards self-learning which in turn triggered critical thinking and innovative culture. Also the community diagnosis posting could be the stepping stone for the students to become a health researcher in future. The self-motivation among the students also increased, the students were more inclined towards health needs of the villagers after the postings. Community oriented medical education during the postings also created extra interest among the students towards the subject which in turn increased their attendance

in subsequent classes. It was again realised that Community Oriented Medical Education and Services (COMES) adds credibility to the teaching institution.

Local demography: Village health survey created awareness about demography of the particular village. Through transect walk the students were able to know about village level data like no of houses, their civil structure, land used for agriculture, health care providers etc. Students could identify poor solid waste disposal and drainage system as determinants of health problem in the village. During house-to-house survey they were able to identify household amenities, environmental conditions, kitchen pattern, sanitation condition etc. in rural houses. Through family and individual survey the students collected data regarding family composition, major occupation, socio-economic status, health seeking behaviour, interesting customs/taboo, etc. Students were able to learn survey skills and apply theory to practical knowledge and research and were able to assess and address the common health problems in the village. Finally they were able to make community diagnosis of the particular village which was useful in making decision regarding key issues to focus on during the health camp.

Rural health: Students realised various lacunae in health care delivery in these underserved rural areas and were able to find solution to determined problem. Some of which they sorted out were insufficient manpower, poor access of nearby primary care centre, time management etc. During the posting, the students were exposed to common public health problems in rural areas. Their knowledge widened towards various services provided by the National Rural Health Mission. They learned about various services from the government for school children like school health services and mid-day meal scheme etc. They could engage themselves in understanding various measures taken by government to reduce both mortality and morbidity in rural area. They could appreciate slow progress in environment control which in turn influences health. They recognised emerging health issues pertaining to life style disorders and importance of creating awareness for identified risk factor.

Communication skills: The students understood importance of communication skills by maintaining good rapport with villagers. They also learnt the local language. They not only realised im-

portance of doctor-patient relationship but also importance of better communication skills in developing such relationship. During the health education sessions, students were able to refine their knowledge and solve the doubts of the villagers, a skill which they developed during series of village visits and through repeated interaction with the villagers. During conduct of Focus Group Discussion (FGD) with the villagers, core health issues of the villagers were better understood by students.

Technical and Technological skills: Students learned about different research methodology through hands-on experience. During the process the students were exposed to various computer and statistical softwares. They learned preparation of power point presentations; illustrate the demography using different diagrams and charts where theoretical knowledge could be expressed visually. The students learned about basic steps of data entry, data analysis and advanced biostatistics. They also learnt various statistical softwares for data analysis.

Health institutions: The students were introduced to the organisational structure at different levels of health care delivery particularly in rural area. Students visited various facilities like anganwadi centre, sub-centre, primary health centre, village panchayat office, non-governmental organisations, self-help groups etc. Students were made familiar about the functioning, beneficiaries and various services delivered at these centres. They learned about the maintenance of various records and registers which are regular sources of data for assessing impact of health service. The students became familiar with roles and responsibility of various health care providers at village level.

Leadership qualities: The students were motivated to lead the entire community diagnosis posting. The students were able to focus on need of the community, as well as what is to be achieved by them at the end of the posting. Their success was foreseen when all the students worked together through active participation. They developed the capacity and competence to manage organized postings and thus their ability to deal with people and problem increased. The students volunteered to accept responsibility, came out with innovative ideas and also in effective decision making.

Organizing skills: Through village health camp the students were exposed to learn and execute organizing skills. They learnt planning, delivery

and evaluation of health service in a particular village. Their skills to approach and attend officials developed. They were able to gather information on macro environment in the health department. Their ability to manage finances and budgeting skills increased. They became competent enough to understand the community building. They acquired skills of conflict management and dispute resolution and were able to easily make arrangements for various resources, a sure sign of organizing capacity.

Documentation and presentation skills: Students learnt good documentation, both in hard copies and computer copies. Their presentation skills were enhanced during health education session where not only the students spoke with command but their innovative posters sounded loud which was equivalent to thousands of words. During the presentations students were able to answer confidently regarding health issues of the respective villages with proposed solutions. The final document made by the students was a standalone outcome which can provide enough information to any health researcher about the process and achievement during the entire community diagnosis posting.

DISCUSSION

In view of dearth of health workforce in rural set-up, Govt. of India recently was forced to consider a compulsory rural posting for all fresh pass-out doctors; however, this strategy faced a premature hiccup reflecting both urgency and failure of authorities, as far as issue of rural health is considered. [6] The primary reason being lack of interest of the new generation doctors to serve the rural population, a concept which medical institutions have failed to propagate into these young minds over the years. In fact, involving medical undergraduates to actively learn through rural postings, sensitizing medical undergraduates to rural communities is considered to be a mere paper work in most medical institutions located in urban areas, barring a few.

Examples of involving medical undergraduates with rural community via fixed duration and objective oriented rural postings have already been documented from India with successful outcomes. [7,8] Similar findings are also evident from other countries; for example, Zhang et al [9] from China has already reported existence of three years of residential programme for medical students with component of rural postings in

their medical curriculum. In order to encourage medical schools to uptake rural medical education and to incorporate it into their curriculum, a rural medical education program was also designed.

In India only few medical colleges have made a compulsory stay-service in rural area for medical graduates, among those colleges few have their stay-service during the internship period. Pandav et al [10] in his study has elaborately discussed about the functioning of Community Medicine department in All India Institute of Medical Sciences, New Delhi. The department has trained the students during final year (Part I) in the name of Comprehensive Rural Health System Programme (CRHSP) and also six weeks of rural-stay during the internship. SWOT analysis among the students found rural training as one of the strength in their teaching curriculum. In a quasi-experimental study conducted by Singh CS among the medical undergraduates where the students stayed in the village, it was found that this method of learning had more significance and also that community based teaching programmes have received acceptance from both communities and students. [11] A Study done by Datta et al [12] on community based learning and other methods among the medical graduates has clearly shown how community based learning has created rural bias and positive mind set-up among undergraduates.

Similarly study by Dongre et al [13] has elicited the advantages of community based learning over lecture class using OHP and presentation. Community based learning had better outcomes than lecture classes.

Dabbagh and Tae, in their study from Iraq has reported a successful incorporation of family medicine into traditional medicine. They observed a significant improvement in knowledge and skills of medical students following exposure to task-based community oriented teaching model in family medicine. [4] Chastoney from University of Geneva has documented a curriculum which starts from first year of medical education under the Community Health Programme (CHP). The aim of CHP is to orient students to priority health problems of individuals and community, and to expose them to primary health care services and community health network. [14]

World Health Organisation based on published literature has evaluated and identified strategies from various countries and institutions which

over the years have created interest about rural health among medical students. These included educational interventions like clinical rotations in rural and underserved areas, appropriate educational preparation for rural service, and adapting curricula to include rural health into medical education program. The process also showed that rural oriented medical education program can influence subsequent choice of medical graduates to practice in rural areas. [15]

CONCLUSION

It is possible to sensitize medical students to rural health through community diagnosis postings and village health survey. Students learnt about various aspects related to the health needs of the rural community and also pertaining to the subject. Involving students to rural health or community health is the need of the hour, which has been reiterated in various published literature.

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