

EDITORIAL

Has the time come to change the way we teach Community Medicine to undergraduate students?

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Why the need to change ?

Substantial increase in the content of subject :

The content of the subject has grown by at least 30 % from the time when I was an undergraduate student and we used to read the 7th edition of Preventive and Social Medicine by Park. At that time this book had only 686 pages (size of pages was at least 30 % less than now) had only 16 chapters. The 21st edition of the same book has 868 pages and 23 chapters. This goes on to show that the content of subject has increased substantially.

12 weeks of clinical posting added :

Medical Council of India has added 12 weeks of clinical posting to the teaching of Community Medicine similar to the postings in major clinical subjects, where in the students are available to us in small groups for approximately 3 hours everyday.

In spite of the increase in subject content and the opportunity for small group teaching during postings, I personally feel that we have not been able to inspire students to learn Community Medicine with enthusiasm.

Why the subject has not become much popular among under graduate students?

Before going into the further details let us look at the following observations made by the WHO -SEARO expert group on "Improving the teaching of Public Health at undergraduate level in medical schools – suggested guidelines." –

Today most of the teaching in public health is carried out using didactic lectures within the ivory tower of an institution with limited exposure to the community. Public health education has to be an active process, student centered, inquiry driven, evidence based and problem solving as well addressing the needs of the community. The role of the teacher should be to facilitate the student to acquire the competencies through field based experiential learning of public health competencies involving dedicated time for practice, receiving feedback and reflecting on its application in their future role as primary care doctors¹.

Let us now discuss some of the reasons which may explain the students poor response to our subject :

1. Lack of Relevance

As almost all of the students entering the portals of medical colleges imagine themselves as successful clinicians with stethoscopes dangling around their necks and large number of OPD patients eagerly waiting for them in their respective clinics, they do not find the teaching of Community Medicine having any relevance to this dream. According to the experts of education, the adult learners are different from child learners in many ways, one of them being they want only to learn something which they feel is relevant to their future career².

2. Don't find it interesting

Most of the students, perhaps find the subject less interesting because they have to mug up lots of definitions, facts and figures in order to pass.

Unfortunately the language, content and the presentation of most of the popular textbooks of our subject don't seem to be student friendly, though many of them are excellent books for us - the teaching faculty.

3. Too vast a subject

As mentioned earlier the content of the subject is increasing every year which means new topics are being added without deleting or minimizing any of the previous topics.

For example, the leading cause of death and disability even in developing country like India has shifted towards Non communicable diseases, yet our teaching seems to be focused more on communicable diseases and the related topics. The students find it very difficult to cover such a vast subject ranging from latrines to Syndrome X.

I would also like to suggest that after taking into confidence all the faculty members in our respective departments we must develop a list of MUST KNOW, SHOULD KNOW and MAY KNOW subtopics from all the chapters given in any standard textbook of

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Community Medicine. This will help us in focusing on the important topics because it is perhaps impossible to cover all the topics in a vast subject like Community Medicine with the equal emphasis.

For example :

Chapter: Principles of Epidemiology and Epidemiological Methods

- **Must Know:** Definition of Epidemiology , different types of Study design, steps of study design and different types of bias. Incidence and Prevalence.
- **Should know:** Association and Causation, famous epidemiological studies.
- **May know:** Nested Case control study.

The above reasons could be the likely explanation for the students taking this subject as the one to be read and mugged up just for the sake of examination (both professional and PGME) and then let its memories fade away as has happened with many subjects he or she read during the school days.

WHAT NEEDS TO BE DONE?

Based on some of the innovations and experiments which we could do at KMC Mangalore , HIMS Jolly Grant Dehradun and Subharti Medical College , Meerut .I humbly suggest the following points which may be considered by us to ignite a genuine interest among the students in our subject.

1. Make it relevant

a. Link it with future practice of Medicine

As discussed earlier most of the undergraduate medical students have a dream to become a successful clinician. Therefore it may be a good idea that whatever is taught in Community Medicine may be linked to their future role as a successful clinician .To illustrate this point further some examples are being given :

1. Why should you (MBBS student) learn about the primary health care system and National Health programs?

As a clinician many of your rural patients will be referred to you through the primary health care system and after the proper diagnosis may again be treated through the same public health institutions. Moreover your participation in the National Health Programs will be sought through IMA (Indian Medical Association) and other such professional groups.

2.Why should you (MBBS student) learn about epidemiological study design and concepts of biostatistics?

As a clinician you will need to read and interpret lots of research studies (mostly epidemiological studies)

published in various medical journals : you will also need the concepts of clinical epidemiology to correctly interpret results of various tests and the prognosis of various clinical conditions.

3. Why should you learn about the different types of hand pumps ?

When the patients suffering from feco- oral diseases like acute diarrhea or typhoid will come to your clinic, you should be able to advice them correctly about the appropriate source of drinking water available to them. In fact every good clinician should know the basics of Preventive and Social Medicine .

b. Link with Newspaper headlines

Interestingly a lot of health related news is being published nowadays in the national dailies .e.g. Times of India (TOI), which can be successfully used to generate student's interest about a particular topic.

Kindly have a look at the following examples :

- Sedentary life style is a serious threat to health and sitting for long hours (>4 hours) in chair can be a serious health hazard. According to an article published in TOI (23/01/10) titled 'Get up, sitting for long can kill you' people who spend most of their days sitting are likely to be fat, have a heart attack or even die. Another one entitled 'Sit less, add 2 years to life' (TOI, 11.07/12), say the same thing in relation to sitting and watching television.

- Junk food can be damaging to the cardiovascular system and overall health. Let us look at some of the titles which have been published in TOI, Delhi in last 5 years- 'Processed food may lead to lung cancer' (01/01/09), 'Junk food linked to cancer in women' (22/03/07), 'Chips, colas junk I.Q in children' (09/12/09), 'Junk food can hook bingers like heroine' (30/10/09).

Whenever we start a lecture with a headline from a leading news paper, it immediately catches the attention of students. It is a very good habit to maintain topic wise files of the various newspaper cuttings related to health and disease .(The author has been doing it for the last 15 years and found it very useful while teaching the undergraduates.)

Give real life examples

We should try to make the topic interesting by giving examples from real life based on our own experience or the experience of others .This makes the student feel that whatever we are teaching happens in real life situations also.

For example while teaching plague we can tell them about the stories we read in the news paper during the

plague epidemic of Surat or what happened during the swine flu pandemic in India .

Link it to their own life –

Many of the topics we teach like vaccination, contraceptives , food and nutrition , life style practices have a direct role in the life of all of the students sitting in the classroom but they will not feel so until and unless we make them realize about it .

For example :

FACT :WHO recommends 400- 500 grams of fruits everyday/person.

Ask those students to raise their hands who consume at least ¼ kg of fruits every day. Those who raise their hands appreciate them by saying “Good, you are likely to remain free from Cancers , Hypertension and Coronary Heart Disease .”

FACT: There are some vaccines which are mandatory for every Indian citizen.

Ask them how many of them know as to which vaccines they have received during their childhood. None of them may remember. Then ask them to enquire about it from their parents. Ask them how many of them have received Hepatitis B vaccination.

FACT : Diabetes type II has got a significant genetic component.

Ask those students to raise their hands whose either parent is suffering from Diabetes .Those who raise their hands , advice them about taking preventive measures from now.

Make the best use of Clinical postings through small group teaching Methodology.

Medical Council of India has given us a unique opportunity to teach some of the key concepts in Community Medicine through small group teaching .According to experts of Medical Education , small group teaching can be far more effective as compared to class room teaching.

Let us look at the following example :

20 students of 3rd semester (2nd year MBBS) posted for the first time in Community Medicine between 9–12 am .

Topic of the day – Fruits - ,Importance of fruits in diet .

Steps :

1. A faculty member should very briefly introduce the importance of the topic (fruits in diet).
2. The students should be divided in 5 groups of 4 members each and should be made to sit at

different places in the departmental museum or any other suitable place.

3. Each group should be given a model of a fruit or a real fruit(included in the list)
4. Give them museum catalogue, if available, with a copy of textbook of Community Medicine and some other literature available like National Institute of Nutrition booklet on fruits .
5. Let each group discuss among themselves about the fruit allotted and also read from literature made available.
6. After every 15-20 minutes the models of fruits should be rotated among themselves so that in one and a half hours all of them have read and discussed about the important fruits .Whenever post graduate students are available they should be involved in this activity – they should supervise the group activity.
7. The faculty in charge again joins the students in the remaining 45 minutes and asks them important practical questions about every food item .The student are asked to summarize the discussion in their own words and submit the written account the next day.

This methodology is in accordance with guidelines by MCI regulations for undergraduate medical students 2012 point 4.3.-” Teaching learning methods shall be students centric and shall predominantly include small group learning , interactive teaching methods and case based learning.”

Organize community visits

One thing which students love about Community Medicine is the visits to the various places like PHC ,CHC, Anganwadi Centre, Sub centre etc .These visits play a very important role in understanding of the public health system of the country and also in adding ‘spice’ to the postings of Community Medicine.

Besides the above mentioned visits they should also be made to interact with the most disadvantaged groups of the society by taking them to Leper’s home, orphanages and old age homes. After such interaction the students develop empathy and compassion which are very important qualities to be enhanced in every medical student.

After every such field visit there should be a thorough discussion with the students regarding their observation and feelings. MCI regulations 2012 point 9.4.d. says “ Understand and apply empathy and other human values

to the care of the patient .” These visits will facilitate the above mentioned aim of medical education.

Include Problem solving exercises in Examinations :

Until and unless we don't change the exam pattern, the students will not give that much importance to a particular topic/ activity so we must include these in the theory/viva of final exams or in the internal assessment.

Can we try some innovative student friendly approaches?

Some of the innovative approaches which have been successfully tried in our department are as follows :

1. Role play –

During the 2nd posting students are split into 3 or 4 groups of 5-6 each and are asked to do a role play on any of the four topic :

1. Doctor- Patient Relationship including Medical Ethics.
2. Female foeticide.
3. Alcohol and drug abuse among medical students.
4. Any one topic of their choice related to public health.

The students are given 2-3 days time to read about the topic they have selected and to plan their presentation .On the day of presentation all available faculty members along with post graduate students watch their performances and appreciate their efforts. The faculty members give their expert comment in the end.

This activity partly fulfils the points given under 3.3 of MCI document about the competencies to be developed in an Indian medial graduate as laid down by MCI regulation on graduate medical education 2012:

3.3.1. “Demonstrate ability to communicate adequately, sensitively, effectively and respectfully with patients in a language that the patient understands and in a manner that will improve patient satisfaction and health care outcomes.”

3.3.2. “Demonstrate ability to establish professional relationships with patients and families that are positive ,understanding , humane, ethical ,empathetic and trustworthy.”

3.5.1. “Practice selflessness ,integrity , responsibility accountability and respect.”³

The ‘Who am I ’activity –

The MCI 2012 document further says that (point - 3.4.3) “The undergraduate medical student should be able to demonstrate activities to introspect and utilize

experience to enhance personal and professional growth and learning³.” In order to further this objective the author has tried the ‘**Who am I activity**’ which has been very well appreciated by student at HIMs, Dehradun and Subharti Medical College, Meerut. The activity is being briefed as follows .

In the 1st clinical posting (i.e. 3rd semester) the students are given a ‘**Who am I questionnaire**’ developed by the author which has around 20 questions related to the personal likes and dislikes of students. Some of the questions are as follows :

- 3 reasons for joining this profession
- 3 qualities which every doctor must have
- 3 things you love most
- 3 things you hate most.
- 3 books/literature/poetry/pros which inspired you since childhood
- 3 movies which inspired you most
- 3 persons you would like to follow in life
- 3 qualities in you which you think are positive
- 3 qualities in you which you think are negative

This questionnaire ,which takes about one hour ,in a way ‘forces’ every student to seriously think about himself or herself. If the student agrees to have a personal interaction with the author, then a separate counseling session is held in the chamber of the author. This activity is done in full confidentiality and without affecting the routine teaching of the students. Till date the author has interacted with around 900 students , each interaction lasting for 10 – 20 minutes. All these interactions have been a rewarding experience both for the author as well as the students.

The feedback from the students about this activity has been very encouraging as it helps them to introspect and enhance their personal growth and release the pent up emotions.

Practice of Yogasana and Meditation

The MCI regulations for graduate medical education 2012 has suggested sports and extracurricular activities including Yoga in their foundation course.³

We have successfully incorporated 3 weeks Yoga Practice half hour each day during the 1st clinical posting between 9 to 9:30 am .Many students have reported following benefits from this activity.

1. Better concentration during studies.
2. Improved attendance in class.
3. Relief from backache and headache .
4. Better control in emotions like anger and depression.
5. Better relationship with colleagues and friends.

6. Acts as a stress buster.

As Yoga is a scientifically validated and time - tested technique of health promotion and disease prevention therefore it is very pertinent that the students get the 'taste' of Yoga during the Community Medicine posting.

Community based projects (P.S.B.H)–

As a surgeon teaches a student how to do surgery, a physician teaches how to diagnose and treat patients, similarly a community medicine specialist should teach the students some specific skill. In our department we have adopted the Problem Solving for Better Health (PSBH) approach wherein all the students of 6th semester are required to do a community based project in the groups of 5 students each. During the project they follow all the basic steps of a community based research including review of literature and are guided by a PG guide and faculty guide in this effort. Students are free to choose any topic of their choice.

This activity has been going on in our institution for the last six years and now become an essential part of our training. The students response has been very positive. Besides giving the hands on experience of community based research this activity partly fulfils the MCI requirement (3.4.4.) "Demonstrate ability to search (including through electronic means) and critically evaluate the medical literature and apply information in the care of the patient."³

"Teaching methods which place the student in an active situation for learning are more likely to be effective than those which do not". -G.E. Miller

Internship Training – Let us not miss this opportunity

We have 2 months time to reinforce the ideas which were given to the students during under graduate teaching. The focus should be how can they practice the concepts of Preventive Medicine and Public Health along with Clinical Medicine.

To get them interested in the Internship training we have included following workshops (besides the rural/ urban postings) : IMNCI, RNTCP, Rational use of drugs, Routine Immunization, First Aid training. During the workshops the questions of PG entrance exams are also covered. We have very positive response from interns.

Further I would like to humbly suggest to this august gathering of public health experts that let us not limit our teaching to any particular textbook however good it may be, though we will have to use one as the main textbook. Whenever needed we can take the help from the excellent books written on various subtopics of our

subject like epidemiology, nutrition, health management, non communicable diseases etc.

Dear friends if we try some of these ideas (many of you must be already doing it) we may have a very high 'impact factor'- as I see it - how many lives of students we could influence in a positive way by improving their self esteem, communication skills, research skills and their life style practices. I personally feel that out of all medical subjects we can have the highest 'impact factor' on medical undergraduates.

Last but not the least I thank Almighty God who has given me such a wonderful experience throughout my teaching career to interact with so many aspiring doctors, while trying to teach them such a wonderful subject.

In the end I would like to thank the organizers of this conference to have given me this opportunity to share my thoughts and experiences about teaching Community Medicine.

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