ORIGINAL ARTICLE

Early Community and Hospital Contact of Undergraduate Medical Students; Innovating the MBBS Curriculum through DCH (Doctor, Community and Hospital) Module

Masood Anwar, Rehan Ahmed Khan

ABSTRACT

Background: Transition from traditional to integrated curriculum has been very slow in Pakistan. However in the last few years there has been tremendous increase in the number of medical schools. Early clinical and community exposure is one of the key factors in generating interest of medical students in learning the clinical aspect of the basic sciences. For this purpose 'DCH module' was incorporated in the first 3 years of the medical curriculum at Islamic International Medical College.

Objective:

- To develop and implement DCH module for early clinical exposure of MBBS students.
- To determine teachers' and students' perceptions of about its influence on the overall learning of medicine.

Study Design: Action Research.

Place and Duration of Study: Islamic International Medical College from Jan 2011 to Jan 2014.

Materials and Methods: Initially Wise man approach was used to develop the module. However modifications were brought into the module applying the United Nations approach of designing a curriculum. The module has been incorporated in the curriculum, aligning it with the last 2 years of intensive clerkship of a five year MBBS program.

Results: Significant improvement has been observed by the faculty, in students' approach about dealing with the clinical context of the basic sciences. It has also resulted in better communication skills and their reasoning approach in PBL sessions.

Conclusion: Early clinical exposure enhances the interest and understanding of medical students of the basic sciences. It lays the foundation of the students towards a professional and clinical approach in dealing with patients, which is in addition to better integration of basic sciences with clinical sciences.

Key Words: *Students' perceptions, Learning, Community exposure.*

Introduction

Ever since the publication of Flexner's report[1] a major paradigm shift has occurred in Medical Education. The emphasis has shifted from “teaching by teachers” to “learning by students”. This obviously could not be achieved without reforming the curricula from traditionally “teacher centered” to modern “student or learner centered”.[2] The process of shifting has been rapid in North America and Europe with almost 100% Medical Schools having implemented the shift. But unfortunately, developing countries have lagged miles behind. While there are no geographical boundaries between diseases and health care, there are marked differences in standards of health professional's education and health care standards. Lancet Commission was set up to study the problem recommended mobilization of knowledge for health professionals of all countries so that they are not only locally responsive but also globally connected with ultimate purpose of providing high quality health care to all.[3] Now the developing countries are faced with the uphill task of reforms in few years which was completed by developed countries in 100 years.The process is both human and material resource intensive, making it further difficult for developing countries. It is therefore imperative the each country shall accomplish this goal in its “local context”, making best use of available resources.[4] In Pakistan, process of reforming medical curriculum was initiated in 2009 when a selected cohort of Medical Schools, considered to be better equipped with required knowhow were allowed by Pakistan Medical and Dental Council to develop and implement new curricula.[5] Islamic International Medical College is one of these medical schools. Over the last five years, an integrated curriculum with emphasis on learning and is student centered has been developed and implemented. One of the key

Correspondence:
Prof. Masood Anwar
Professor of Hematology
Dean Faculty of Health & Medical Sciences
Principal Islamic International Medical College
Riphah International University, Islamabad
E-mail: masood.anwar@riphah.edu.pk

directional elements in its development was the postulate that early clinical and community exposure is one of the key factors in generating interest of medical students in learning the clinical aspect of the basic sciences.[6] The rationale of exposing the beginner to healthcare delivery system(s) at the start of their medical career is that this early exposure to patients and community will stimulate among students critical thinking of health issues in general and common diseases in particular leading to acquisition of multidisciplinary integrated knowledge of these issues and diseases. Learning in an urban, suburban or rural community designed to enable the student to gain an understanding of the relationship of the health and disease, multi sectorial engagement in community development, community health problems and their solution under a primary health care program will help the student to overcome his/her own feeling of hesitance from patients and hospital environment.[7] This adaptation will contribute to develop a strong desire in the students to solve the problems of the patients and to learn medicine. For this purpose 'Disease Community and Health (DCH) module' was incorporated in first three and a half years aligning first two spirals with last one year of intensive clerkship.

Materials and Methods

For the purposes of this module a community-based learning activity is defined as an activity that takes place within a community or in any of a variety of health service settings at the primary or secondary health care level, where community is observed and followed up over a period of time. Initially the wisemen approach was used to develop the module.[8] A group of 3 qualified Medical Educationists, under the guidance of Dean Faculty of Health and Medical Sciences, developed the draft of contents, learning methodology and implementation plan. The main emphasis was laid on student's early exposure to community and hospital patients and teaching communication skills. Using United Nations approach8, it was then presented to all heads of clinical departments to provide their in-put. They were advised that while suggesting modifications, they shall take into consideration the UNICEF document[9], Lancet Commission recommendations3 and competencies described in Tomorrow's Doctor[10] and Scottish Doctor.[11]The document was then discussed in Faculty Board. The module was then finalized by the same group of Medical Educationalist but this time they were assisted by senior faculty of Community Medicine Department. The content, learning outcomes, assessment methodology was decided in several meetings. The final draft was then presented to the curriculum committee and approved for implementation. The module has been incorporated in first three years of the curriculum, aligning it with the last 2 years of intensive clerkship of a five year MBBS program. The initial impact of module was assessed after one year.

Results

The Module

The DCH module developed has the following main features (competencies).

Knowledge

- Student will be able to know the structure of primary, secondary and tertiary health care systems.
- Student will be able to know the common complaints with which the patients present in various departments of the hospital.
- Students will be able to understand the basic components of history taking and examination and their importance diagnosing a clinical problem.
- Students will be able to understand environmental and behavioral aspects of common medical problems in the community.
- Students will be able to search for and implement measures to modify the population habits and environment responsible for common diseases in the community.

Skills

- Students will be able to take history in a proper sequence that is relevant to patients attending a specific clinical department.
- Students will be able to demonstrate steps in clinical examination of patients attending a specific clinical department.
- Students will be able to identify population behavior and environmental factors responsible for common diseases in the community.
- Students will be able implement preventive measures in the population to reduce the

burden of common diseases and record the outcome.

Attitude

- Students will be able to demonstrate communication skills while taking history from the patients.
- Students will be able to demonstrate bed side manners while examining patients.
- Student will be able to communicate with the population and persuade to implement proposed measures for decreasing the disease burden.

Module Implementation

Each entry in our Medical School comprises 100 students. The class was divided into 6 batches with equal number (16) of students in each batch. Initially each batch was rotated in each of the major clinical departments to acquire skills in history taking and basic clinical examination. Both skill lab and actual patients were utilized for this purpose. They were then rotated to community settings, basic health units (BHU) and Lady Health Worker's centers. The sessions are planned one full day in each fortnight. The batch 2013 has completed its first year. In second year, the students groups will be allotted a set of households in identified suburban and rural communities to study their health issues/habits, suggest and implement modifications. Towards the end of third year they will study the outcome of interventions and submit a written report.

Faculty's Observations

To assess the impact of this innovation of the curriculum, a focus group of clinical teachers were invited to discuss their observations regarding the module itself, its implementation and impact on student's learning. Summary is as under:

a. They were unanimous in expressing satisfaction about the contents and design of the module.
b. Majority suggested increasing the skill lab component and simulated patient introduction to improve communication and clinical skills.
c. They were unanimously satisfied in effective ness of the module.
d. Majority was of the opinion to increase the duration of the module.

Students' Perception

A questionnaire was distributed to the second year students (who have completed one year of this module) to know their perception of this module. The results are reported in table I.

Table I: Students' Perception

PERCEPTION	GOOD	ADEQUATE	POOR	DON'T KNOW
Community exposure	35%	33%	32%	0%
Patient exposure	25%	50%	20%	5%
Learning communication skills	20%	40%	40%	0%

Discussion

A curriculum, in fact, is systematic packaging of competencies that are to be acquired by a learner through organized learning activities.[9] These competencies may vary from place to place depending upon social, cultural, ethnic and economic status of the population. Ideally a curriculum should include what the society envisages as important for teaching and learning. This vision of the society is developed usually by professional bodies constituted for this purpose taking in consideration local requirements, available resources (including human resource) and health structure. These bodies could be local (Governments), Regional or Global e.g. WHO, UNESCO etc. is vision in the light of research, need analyses, available resources and gap analyses. Obviously these are going to differ from one to other society. In case of medical education, as there are neither geographical boundaries for health professionals to work nor for the disease to travel, there is also a requirement for curriculum to be holistic and global in its contents.[3,7] The DCH module of our curriculum was developed keeping above factors in mind. In Pakistan the curricular change is still in its infancy therefore there is not only dearth of trained and motivated faculty to implement the reforms but there is also a fair amount of resistance from senior faculty members and officials. This resulted in some gaps in module designing and implementation as evident from faculty select group review discussion. This is not unusual and has been subject of several expert reviews.[4] It only requires constant monitoring and modifications as suggested by experts.[12] Like any other developing country there are two extremes in health care delivery. On the one side are state of the art tertiary care hospitals which

are well equipped and have well educated and well trained faculty, while on the other side extremely basic health units often lacking in essential equipment, man power and finances. The irony of the fact is that only a very small number of patients benefit from hospitals, which are also teaching hospitals for medical schools while majority looms with basic health unit or private practitioners. Moreover the students do not get opportunity of seeing many patients and diseases in their actual environment.7 Introduction of this module has certainly stimulated students learning as expected and is evident from their critical responses. Student's perceptions were elicited only in three areas, considered to be the key elements of this module. These are community exposure, patient exposure and communication skills. In all 60-75% students have shown satisfaction (good or adequate). However there are 25-40% students who are not satisfied. This is primarily because for almost all non-faculty mentors involved it was the first experience. This difficulty is also recorded in literature.4 We expect that with some training and experience they will be able to make these exposures more fruitful learning activity for the students.

Conclusion

DCH module has been able to achieve its objectives but there is still room for its improvement in the light of faculty and student's comments. Non-faculty mentors involved in its implementation also require some training. True impact of the module can only be assessed on its completion.

REFERENCES

1. Flexner A. Medical Education in United States and Canada: A report to Carnegie Foundation for the Advancement of Teaching. Bulletin No. 4, 1972 (revised), The Carnegie Foundation for the Advancement of Education, New York 2010.
2. Gibbs T, Mclean M. Twelve tips to designing and implementing a learner centered curriculum: Prevention is better than cure. Medical Teacher. 2010; 32:225-30.
3. Frenk J, Chen L, Bhutta ZA, Cohen J, Crisp N, Evans T, et al. Health professionals for a new century: transforming education to strengthen health systems in an interdependent world. The Lancet 2010; 376 (9756):1923-58.
4. Dauphinee D. Forgetting lessons past: failure to consider context and resources in curricular change. Medical Education. 2009; 43:502-4.
5. Pakistan Medical & Dental Council. Personal communication.
6. Esphahani RJ, Yazdi MJ. Effect of early clinical Exposure on Learning Motivation of Medical Students. Future of Medical Education. 2012; 2(2):3-7.
7. Mennin S, Petroni-Mennin R. Community based Medical Education. The Clinical Teacher. 2006; 3: 90-6.
8. Harden RM. Ten questions to ask when planning a course or curriculum. Medical Education. 1986; 20:356-65.
9. http://www.unesco.org/new/en/education/themes/strengthening-education-systems/quality-framework/core-resources/curriculum/ accessed on 04-05-2014.
10. Tomorrow's Doctors (2009). General Medical Council, UK. http://www.gmc-uk.org/publications/undergraduate_education_publications.asp#1accessed on 04-05-2014.
11. http://www.scottishdoctor.org/accessed on 04-05-2014.
12. Van der Vleuten C, Schuwirth LWT. Assessing professional competence: from methods to programs. Med Educ. 2005; 39:309-17.