VIEW POINT

pISSN 0976 3325 | eISSN 2229 6816
Open Access Article
www.njcmindia.org

# Teaching in Community Medicine amid COVID-19 Pandemic: Challenges and Way Ahead

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**Keywords:** Covid-19, Pandemic, Teaching, Community Medicine

The first case of COVID-19 was reported to the WHO Country Office in China on 31 December 2019 as an unknown cause of pneumonia. [1] Currently it has affected 216 countries, areas/ territories with 6,057,853 confirmed cases of COVID-19 worldwide as on 1st June 2020. [2] In India first case was reported on 30th January 2020 with 198706 cases as on date 2nd June 2020.[3] Initially our country responded by imposing strict lockdown since 25thMarch 2020 which was gradually relaxed in phased manner depending upon the state wise and country wide situation of COVID-19.

Current pandemic of COVID-19 has been disrupting economy, governance and academia of country and created global humanitarian crisis. Structured medical education with pre defined goals for future doctors has also not remained untouched. For the academic year 2019-20 there are total 542 Medical colleges in India with total seats of 79855.[4] Since the admission of current academic batch in August 2019, revised competency based undergraduate curriculum was implemented replacing the existing Regulations on Graduate Medical Education, 1997. This current curriculum is designed to achieve the objective of creating Indian Medical Graduate (IMG) with appropriate knowledge, skills, attitude and values towards the community.[5]

Competency Based Medical Education (CBME) recommends medical curriculum that focuses on desired and observable ability of IMG in real life situations. And to fulfill this goal, IMG should have obtained a set of competencies during the period of undergraduate medical teaching. The competency based curriculum has given subject wise list of competencies along with domains addressed and level of competency required based on Miller's pyramid i.e. K – Knows, KH - Knows How, S – Skill, SH - Shows How and P - Perform independently. [5]

CBME is the end product of rigorous brain storming of medical education experts and envisaged as paradigm shift in medical education from predominantly knowledge based to skill based education. CBME suggested small group teachings, self directed learning, alignment and integration between subjects with formative and summative assessment to achieve desired goal of IMG. Implementation of CBME had its challenges like shortage of faculties in medical colleges, de learning and capacity building of senior faculty members, extensive involvement of faculties in service delivery as well as national health programs, infrastructure to cater need of CBME, inadequate number of patients in newer medical colleges, students' preparedness for adaptation of CBME etc. To address these issues and find amicable solutions, MCI designed Curriculum Implementation Support Program (CISP) which is implemented in all medical colleges.

Just after implementation of CBME uniformly nationwide, challenge of pandemic of COVID19 emerged unexpectedly. Country experienced a historic lock down to control spread of COVID19 in community and to prepare health system to respond the worst possible scenario. Now it has been more than two months since teaching institutes have been closed across the country.

For medical colleges, there has been no uniform directive from center regarding teaching during pandemic. Guidelines pertaining to implementation of various national health programs related activities including field based ones have been issued well in advance before lockdown opens so that the health system becomes prepared to implement programs with primary prevention measures of COVID19. As country has reached from lock down to unlock phase, a guideline or

advisory from experts in medical education from Medical Council of India or Board of Governance regarding uniform schedule of teaching and evaluation, mode of teaching, methods of integration between various departments in online teaching, guidance for clinical as well as field level teaching with preventive measures against COVID 19 is the need of the hour. With increasing numbers of medical colleges in our country, every college is at different phase of development. Older colleges with immense experience of teaching and larger pool of faculties to newer colleges which have been recently permitted to start admission for undergraduate medical students, the range is varied and expectation is similar from every college in teaching CBME. This factor should also be considered while issuing standard advisory.

Though online teaching is being advocated and has been started by many institutes, it is still going on in patchy, non-uniform and individualistic manner. Rather than such individualistic approach, uniformity in teaching should be there across country which is the base of CBME.

Ambiguity regarding online teaching is more with CBME as to how exactly to teach competencies by using newer technology in absence of actual human interaction; and it needs appropriate directive. This guidelines or directives from center would help teachers to prepare themselves to impart CBME without compromising its core vision of IMG.

To address different levels of competencies online lecture has its own limitations. Knowledge domain can be well addressed by online teaching methods and to some extent demonstration of skill component but to achieve that skill along with domains such as attitude and communication, exposure to field and community becomes crucial.

The first academic batch sets the base for teaching for subsequent batches. The pandemic is expanding all across the world and currently it is being accepted that covid-19 will be a part of our lives. Hence medical teachers across various subjects need to come together for a teaching plan (considering alignment and integration) that can actually be materialized without jeopardizing health of either of the two stakeholders i.e. students as well as teachers. Competencies need to be identified and segregated based on revised teaching learning methods.

Implementation of CBME amid COVID19 pandemic has numerous challenges but to address or enlist them all is out of scope of this article. The objective of this article is to sensitize teachers regarding those challenges by giving examples of it in teaching of Community Medicine subject. Teaching of Community Medicine is delivered from 1st professional to 3rd Professional 1st Phase. Under CBME, Community Medicine is dealing with 20 topics and 107 outcomes which include integration, alignment with other subjects. 52 hrs, 60 hrs and 105 hours of theoretical teaching is recommended in 1st Professional, 2nd Professional and 3rd Professional phase I respectively. Clinical posting of 10 weeks divided in to 2nd professional and 3rd Prof Phase I is also recommended. Here few of the challenges envisaged by authors.

1. Newer curriculum emphasizes that didactic lectures should not exceed one third of total teaching and two third of the schedule should comprise of interactive teaching, group discussion, practical sessions, community health care related activities etc. [6] Therefore one third of the portion can be taken online without coming in direct contact with students. Taking lecture of on an average a hundred students in single lecture hall is not recommendable; therefore feasibility and safety weighs in favor of online lectures.

   This method of online teaching is new for medical teachers for which capacity building needs to be done at institute level. Standard methods of online teaching can be formulated and applied at institute level as per the feasibility. Infrastructure in the form of proper working internet and computer system are essential. To implement CBME in true sense, Innovative approaches to engage students using different technological methods should be applied to improve retention of knowledge by students. Evaluation methods like short answer questions quiz at the end of lectures followed by teacher's feedback can be used to increase attention of students during virtual classroom. Students' feedback mechanism should also be taken on regular basis.

2. For the two third portion of interactive sessions or community posting is a challenge for any institute. Making arrangement for transportation for students' field visits, while maintaining social distancing for different batches of students posted in Community Medicine, would require cooperation from college authorities as well as coordination between other subjects along with social institutes. Wherever feasible, social institutes can give virtual tour to the students for time being. This planning will depend upon the level of competencies to be achieved through such community visits.

   Current learner centric outcome driven curriculum emphasizes on achieving essential skills than just acquiring theoretical knowledge. Hence exposure of students to community with exposure to COVID-19 would be a problem solving exercise for us public health experts. Routinely

going in the field to visit social institutes or conducting family study exercise need not be stopped as first hand community experience can never be replaced entirely with online videos and theory. Students need to inculcate all measures of prevention in their routine lifestyle.

3. Core competencies for which community exposure is a must, needs teaching learning method that entails minimum exposure to COVID-19 but at the same time imparts skill necessary to achieve that competency e.g. to identify severe acute malnutrition at community level, student can be taught theoretical aspects of severe acute malnutrition along with video demonstration through online class before taking them to the anganwadi center visit where student can learn actual community process involving identification of severe acute malnutrition at field level. This will reduce their exposure time to COVID-19 in field.

4. Family study is an integral part of community teaching that addresses domains of knowledge, skills, attitude and communication. To conduct family study, area in community with less numbers of cases can be identified. Proper advocacy to community would be a pre requisite and has to be done on regular basis by the faculties along with field level paramedical staff to remove fear of COVID-19 and instill correct knowledge of prevention.

Adopting simulated environment for teaching Attitude, Ethics and Communication (AETCOM) competencies can be useful during current times wherever feasible.

CBME is the revolutionary concept that has succeeded decades old medical curriculum. The pandemic has hindered its implementation pace within just few months of its initiation. With proper strategic planning through uniform guiding principal across the nation for all medical colleges would ensure its execution in seamless manner.

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