EDITORIAL: POST GRADUATE TEACHING AND EVALUATION IN COMMUNITY MEDICINE: CHALLENGES AHEAD

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The regulatory authority- ‘Medical Council of India (MCI)’ has defined the goals of postgraduate medical education in Community Medicine. Essential competencies to be acquired at the end of postgraduate (PG) education include managerial and epidemiological skills in health care delivery system and national health programmes, skills to identify community health needs, research methodology and abilities of training of medical and paramedicals personnel. In essence the postgraduates at the end of three years training should be stepping stones to occupy managerial positions at different levels of health care delivery system (community health centers, districts, states and national levels), become dedicated pool of researchers; to be able to become a good teacher/trainer with adequate paedagogic skills ¹. Teaching skills can be put to use in departments of community medicine, state level/district level trainings institutes, national health system resource centers, state institutes of health and family welfare centers and in the public health institutes of the country. Exhaustive syllabus in theory and practice of community medicine with guidelines on teaching programme and teaching schedule besides postings at different locale has been drawn up by university bodies along with evaluation design. However the models of PG teaching and training in the discipline of community medicine in the country are at variance. These models include, those developed by autonomous institutes like PGIMER, Chandigarh, JIPMER Puducherry, AIIMS New Delhi, AIH and PH Kolkata, Armed Forces Medical College Pune, DNB, IGNOU, NIHFW, university colleges at Delhi, Varanasi, Aligarh and Lucknow besides models by Universities of health sciences and by many other medical colleges ³-⁴. The issues involved and challenges ahead broadly are: how to implement the educational programmes, who are the good teachers or guides, where are the field practice areas/ community laboratories for training, how are the skills in research methodology, epidemiology and management, and teaching acquired in the present set up.

Responsibility:

Accepting a PG in the department is a heavy responsibility of community medicine department. PG training means preparation of future generation of professors in the discipline. The real challenge is how to produce good PGs and offer them adequate structured learning opportunities during the course of training of three years. The department faculty holds pivotal responsibility of monitoring the training programme for PGs and ensuring its implementation. They further certify that the specified skills are mastered by repeated practice in the community lab, with continuous formative assessment and feedback to PGs. All the activities done by PGs on day to day basis should be recorded in daily diaries and log book maintained duly certified by the guides/preceptors.

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Even the best of the departments of community medicine in the country cannot impart/inculcate all the required skills/competencies to PGs. Some of the skills are to be acquired by extra-mural teaching models by seconding the PGs to a specific institute or regular placement of students with national health programmes or exchange programme of faculties. The respective medical colleges and universities should identify such extramural situations and make use of these situations which are available nearby. Some example are cancer registry system, NIMHANS at Bangalore, NTI Bangalore, NCDC New Delhi, Vaccine institutes at Kasauli and Kanur, NIN Hyderabad, ICMR and its regional institutes, NIH and FW Delhi, State and district level organizations, training centres of paramedicals workers. Seconding PGs to institutes with good field practice area for one to two weeks is also desirable. A good UGs and internship training programme is another opportunity for PGs training programme in many ways particularly in microteaching and developing teaching pedagogy where the PGs become part of such training programmes.

Learning in Community

Community medicine must be learned in the community as the community is the “heart” of the system of health care. “Community” is essential laboratory for practice, teaching, training and research in the subject of community medicine. The postgraduate should heave a good look at the community and be resident for specified time in urban/rural or tribal community to learn community organization in terms of local self government (Panchayati Raj organizations) and leadership pattern; lifestyles and habits; cropping and land holding pattern; age and sex structure; excreta waste-water, refuse and garbage disposal. It also provides an opportunity to observe and understand life of economically weaker section, breastfeeding and feeding practice of most vulnerable, childbirth and child rearing practices, health care seeking behaviour, and reproduction behaviour. This gives an insight into the social determinants of health and moving away from myopic biomedical model. Assessing community health needs and community diagnosis should become the major exercise in the community. The challenge to provide learning opportunities to PGs lies with the teacher or preceptor who should be able to motivate the learner to develop skills of listening to people, observation on community, examination of community, tentative diagnosis, community therapy, and evaluation of community therapy by follow up of the community. The community medicine in its entirety can be best learned in the community settings.

People themselves are the biggest resource; community is live book of community medicine, and much more learning can come through consumers who are the real “masters/king” in service delivery system. Interaction with people and their organization in rural and urban settings offers a wonderful opportunity for learning from people. However this opportunity is quite often a “missed opportunity” as teachers and trainees spend most of their time in the class room settings or on computers and internet learning. Community participation in health and development activities including national health programmes can only be learned in community settings; one cannot find an easy substitute for this design. Therefore the challenge for the community medicine (or Social and Preventive Medicine/ Preventive and Social Medicine) departments is to take “full responsibility” of a defined community and develop a model rural/urban field practice area where PGs should become responsible for a small community for health and development activities. Experiences of innovations done by departments have yielded rich dividends in teaching and training of PGs where PGs take responsibility for a small community and undergo resident training mostly in community settings.

Having field practice areas merely as physical infrastructures with decoration of materials and equipment divorced from any functional responsibility for community and national health programmes is meaningless. The setting up and winding up of shops after MCI inspection is most unfortunate. Wherever such urban/rural training centers are set up by medical colleges/universities as mere compliance to MCI requirements, are only show pieces which result into duplication of health structures and, have much different manpower/ infrastructure norms from the national / state health care delivery model. Such
a system has no linkage with health care delivery system. This can be quite confusing in imparting teaching and training to undergraduates (UGs) and PGs. Indian Association of Preventive and Social Medicine (IAPSM) and Indian Public Health Association (IPHA) should strongly resist such and wrong models for teaching and training programmes.

Rural Health Training Centre/ Urban field practice areas adopted by medical college are not viable functional units. These tend to work in isolation. These have to be linked with district, block and PHC organizations. Since district has been recognized as unit for planning and resource allocation besides controlling, guiding and managing all public institutions. Support for all national health programmes (disease specific, RCH and NRHM) and training activities/ continuing education apart from supportive supervision to PHCs comes through district. Similarly for tackling problems of outbreaks and for holding mass campaigns district support becomes essential. To learn and teach all these essential elements in adopted PHCs as enumerated above in a vaccum become almost impossible task. Hence linkage with district organization is of paramount significance. The adopted PHC should be part of district organization/primary health care system.

Out of the 299 medical colleges in the country, 158 are in private sectors which want to be recognized with a seal of postgraduate institutes. Faculty positions in community medicine as well as in most other specialties are stage managed to achieve the compliance requirements of MCI. The postgraduates entering in such institutions are being guided by those teachers who have never guided a student in their life time. In such a scenario the only available method of learning is “self directed learning” through laptop and computers which have captured the mind of most postgraduates. Learning and teaching has become “computer centric” and most of the time students are glued to laptops and confined to rooms not making much attempt to learn in the “community settings” or field practice areas. Further most medical colleges have not developed or taken the responsibility of a geographical urban or rural community field practice area. Most states are reluctant to handover primary health centers as field practice areas to medical college and conversely most medical colleges shirk to take full responsibility to provide primary health care services to a defined geographical area (urban or rural or tribal). Practice of “community medicine” can only be learned in the community and there is no substitute or alternative to this model. Hence the challenge is that the medical college should take full responsibility of urban/rural/tribal area to develop best model of health care delivery system with innovations so as to guide the state health system for developing a better health system.

Family Studies

It is a common practice or ritual that UGs and PGs are given family studies in urban slums or rural area in the vicinity of medical college. The major purpose of family studies and clinico-social case review is to offer educational experiences with focus on “learning” natural history of disease, the levels of prevention, apart from assessing health needs of family and community. Institutions which keep changing field practice areas year after year have the disadvantage of not allowing UG and PG students the opportunity to track a family cohort over a continuous period and to make any impact through intervention. Most institutions have temptation and practice to introduce family folders containing variety of household maternal and child health cards, immunization cards, growth cards etc which one much different from the one’s being used under the national health programmes. In our experience use of some household survey format or register and cards which are being used in the programme of RCH/NRHM and ICDS is much more meaningful. This makes more sense as it gives an opportunity to update local records, identification of beneficiaries as also follow up services. The results can be cross matched with those of local health workers and gaps can be discovered for rectification. This mechanism reinforces the system and helps improve the quality of records and services. Family/household register which is updated once every year or on continuous basis forms the basis of formulation of village health action plan, sub center action plan; community health needs assessment, monitoring and evaluation of programmes, besides learning demography and best practices adopted by the family/household within the limited resources of income and literacy levels.
Public Health Laboratory

It is almost a ritual to establish public health laboratory to meet the requirements of MCI. These laboratories are put into use only on the day of terminal examination or some days before the examination and these seldom function on sustainable basis. Public health laboratory should be linked with microbiological laboratory; water samples from field practice area should routinely be sent to this lab for coliform count. The national programme effort for microscopic examination of malaria parasite, microfilaria and acid fast bacilli for tuberculosis, parasites in stool samples, testing of salt samples for iodine, pregnancy test, Elisa test and other routine tests like Hb and urine examination besides rapid diagnosis kits for malaria and filarial can be learned in this laboratory. PGs should be able to perform simple tests for food adulteration in the field. Prime laboratory of practice of community medicine/public health is “community”, hence relevant public health laboratory tests should be done in the community in primary health care delivery system. Central laboratory for PGs of all streams as per requirement of MCI should be established in the institutions to support learning and for the thesis work of PGs.

Best Teachers

The best teachers in community medicine/epidemiology are the ones who are the practitioners of community medicine/public health. Many of these teachers are available at village, sub centre, PHC, CHC district facility and state level organization. Best epidemiologists are Anganwadi workers (AWWs), health workers and dedicated medical officers who are responsible to promote health of people. Each of the above levels holds responsibility for a defined community to ensure health development and better quality of life. Involving district/state health programme managers in teaching/training programmes in community medicine, giving them status of honorary teachers/professors, regular interaction with them can enrich the learning of public health/community medicine in the area of health management functions and epidemiology. Learning epidemiology and health interventions from health volunteers and health workers (health teams) is a powerful and meaningful method/tool to acquire most competencies in health management and epidemiology. MIS system at an anganwadi and sub-centre level provides the starting point to learn descriptive and analytical epidemiological skills.

Opportunity provided under National Rural Health Mission should be maximally used to enrich teaching and training programmes. One such opportunity was preparation of district health action plan (DHAP) for every district of the country. Same of the professors of community medicine were used as mentors to support formulation of DHAP through assessment of health needs of the district, using household and facility surveys, situation analysis, block level consultations etc. It required settings objectives, identification of core strategies, activities/work plan around strategies, costing of activities, defining responsibility and time-line for completing the activities, monitoring and evaluation indicators and replanning of programmes. NRHM is open to involve the expertise of medical colleges in the area of capacity building and research endeavors in health system. It proved to be an excellent exercise for learning of applied epidemiology and health management in its totality. Similarly involvement of medical colleges in national health programmes like ICDS consultants, IPPI, IMNCI, IDSP, HIV/AIDS, Sentinel Surveillance, Data triangulation, Mapping of nutritional status, community based coverage evaluation surveys and district health surveys have enriched the learning of PGs in management of national health programmes. Linkages between medical colleges and district state health organization is advantageous. It certainly facilitates learning of community medicine. How these linkages can be strengthened and institutionalized is a challenging job. There are many formal and informal ways to achieve these linkages provided there are sincere efforts and positive attitude to do this. Participation of departments of community medicine in monthly meetings of civil surgeon and ICDS programme, becoming part of continuing education and training programmes of the district teams, helping them in mass campaigns and containment of outbreak, involving district health programme officers in training programme of UGs and PGs can be quite rewarding experience.
Thesis

The purpose of writing thesis is to learn skills of research methodology and develop scientific temper. PGs should be able to identify a relevant research question, conduct critical review of literature, formulate hypothesis, set the objectives for the study, determine most suitable study design, prepare a study plan/protocol, collect, compile, analyze and interpret research data and draw valid conclusions. Ultimately they should be able to write and publish a research paper and use it for policy advocacy. The selection of relevant subject is a challenging task for the guides who are inexperienced; even at times experienced guide can be casual. The teachers/faculty-guides should be well versed and have sufficient experience on the chosen subject of students thesis in order to provide effective guidance to the students. The faculty of the department should select relevant research topics well in advance, in the area of health system research covering national health programmes, health care delivery system, health management and local health problem as identified by the district or state. It should be relevant to pressing priority needs of the country/ state/ district. Major instrument which are handy to search relevant research questions are, sustained interaction with district programme officers, district level household survey data, national family health survey data, routing health management information system reports of national health programmes, district health action plan data, village and sub centre action plans and other survey reports such as risk factors of life style diseases apart from IDSP data. Research priorities should be determined by in consultation with the district and state health authorities and these can be listed well in advance as data bank for topics. This challenge must be met with honour as thesis protocol is a life time achievement and prime possession of PG student. Further the results of the thesis should be shared and communicated to all stakeholders/ programme managers and the community whose lives are involved. More often than not theses are ornamental and kept in safe custody of library or departments. These are seldom shared with the programme managers of health system of community. Invariably the research attainments of the departments of community medicine happen to be only thesis work undertaken by the PGs. Departments must reach out to get research projects/research grants to gain sufficient experience in collaborative and multicentric research endeavours.

Evaluation

The internal evaluation of PGs has to be a continuous unbiased objective process by the department faculty. It should cover cognitive, affective and psychomotor domain. The formative or continuous assessment can be made much more objective by standard log book of day to day activities/skills acquired and duly certified by the faculty members periodically.

Summative (final) assessment is terminal external evaluation. As a matter of fact the external evaluation by external examiners in essence is assessment of the whole faculty of community medicine department which pin points how well have they trained their PGs and what learning opportunities were provided to the candidate. Most often the responsibility of training of PG is entrusted to one teacher who is the guide or supervisor for thesis work and other faculty members provide passive support or least support. Training of PGs is the responsibility of the whole department of community medicine and ideally that of whole institution.

Practical examination concentrates on a ritual vague exercises on family study, one or two short cases in the hospital or in the community, routine statistical exercises/epidemiological exercise having little relevance with the national health programmes. Regular management exercises by solving a management problem; micro-teaching by developing of lesson plan of teaching, training and evaluation of UGs, and paramedical; health economics by costing of episode of illness; health promotion by assessing communication needs or evaluating communication material, communication methods are conspicuous by their absence in terminal or formative assessment. Evaluation tends to be highly subjective, patchy and assesses only the cognitive domain most often. Log books by PGs are seldom maintained or give a poor account of skills
acquired and are not presented to external examiners. These are a key instrument for self evaluation as to what competencies/skills have been learned and by which method/exposure.

In conclusion evaluation should focus on skill pyramid of PGs and assess if they are able to "think epidemiologically and act socially".

Teacher’s Training

Teacher’s training in research methodology, pedagogy and management is critical input into PG training programme. Medical education units established in medical colleges can partially fill this gap of teachers training. Teachers themselves should keep on learning and seek opportunities for such training periodically. Some noteworthy opportunities include participation in investigation of outbreaks census operations, special screening campaigns for diseases/immunization, crash training and conditioning education programmes. Such opportunities should be increasingly used by the guide/teachers of PG Students. Live situations/experience can be brought into the class room 6-7.

PGs to PGs training

Interaction between PGs of the same department and PGs of other medical colleges situated in the same city or nearby medical college of the state can be quite rewarding. Interaction could be speedy and faster with the help of information technology, teleconferences, satellite teaching and training and contact programmes. National level/state level/ regional level conferences could be another forum for continuing medical education programme for PGs and young faculty members. IAPSM and IPHA hold equal responsibility for organization of continuing education programmes as part of annual conferences, wherein PGs and young faculty members are encouraged to acquire special skills on research methodology, meta analysis and many other areas.

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