

healthcare. Thirty-nine centrally funded Government institutions, including ten DGHS libraries and 28 ICMR libraries and All-India Institute of Medical Sciences library are its core members. The Ministry provides the funds required for the purchase of electronic journals under the NML-ERMED consortium project. The facility offers over a million articles in the open-access mode from over 1515 medical journals. When fully operational, articles can be searched using the choice of journals, publishers, subjects and keywords of the database. The Consortium is coordinated through its headquarters at NML, New Delhi. NML has earned the distinction of being one of the leading resources of medical information in Asia. NML also has a database of theses from different medical colleges in India.

In biomedical research, locating an article of interest is mostly an electronic search ever since PubMed (<http://www.ncbi.nlm.nih.gov/pubmed/>) became user-friendly with 'Boolean search' options. PubMed has over 6500 biomedical journals, which can be searched electronically. Most of the leading medical

journals provide free e-mail list of contents. Further, medical practitioners now rely on systematic reviews on a given topic to find evidence bases of treatment they provide. A systematic review is a literature review which tries to identify, appraise, select and synthesize all published research evidence. Usually it focuses on a single question. Systematic reviews are generally regarded as the highest level of evidence by evidence-based medicine professionals<sup>3</sup>. Supported by large publication houses, Chochrane Collaboration and JBI Collaboration are two major initiatives in the systematic review of medical literature. They have developed a search strategy to locate articles of interest world over. We recently adopted and modified their search strategy under a project funded by DST-NSTMIS, Government of India, to locate articles to conduct a systematic review in ayurveda. We emphasized more on locating literature in Indian institutions and databases. We found that the National Institute of Science Communication and Information Resources (<http://nopr.niscair.res.in/>) on-line periodical repository is under development and plans to

provide on-line access to full text articles from research journals. Therefore, if librarians of research institutions could develop a search strategy to locate journals and articles of interest to their institution, sharing scientific literature would be easier. Most of the Indian biomedical libraries and databases provide photocopies of available literature for personal use.

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3. Egger, M., Smith, G. D. and O'Rourke, K., In *Systematic Reviews in Health Care—Meta Analysis in Context* (eds Egger, M., Smith, G. D. and Altman, D. G.), BMJ Publishing Group, London, 2001, pp. 3–17.

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## Re-thinking on medical admission for science and healthcare

India's population now exceeds 100 crores and the big challenge before the Government is to provide basic healthcare to all segments of the society. In spite of the economic and technological developments and the huge investments made in the medical education sector, the doctor-patient ratio is extremely low in our country, compared to that in developed countries. We need professionally qualified and competent doctors to fill the gap. Therefore, it is the need of the hour to develop a comprehensive medical education policy binding to the whole country, and more investment is to be pumped into the medical education sector. But the current realities are quite dismal. Many students who pass out from the medical colleges are ill-equipped to treat patients. This scenario has emerged with the introduction of capitation fee for medical admission, which is now a deep-rooted malaise in medical admission all over the country. Students with no calibre,

aptitude or interest get into the medical profession either due to the funds they command or due to parental compulsion. Only a few with merit, talent and aptitude for the medical profession get a chance to enter the portals of the medical colleges. It is quite unfortunate that in some states, the minimum marks for the qualifying examination have been lowered, in spite of the IMC directives otherwise. Students who get into the medical profession in the merit category through the medical entrance examination are, no doubt, competent enough to get into the system and will come out as qualified professionals. Due to their interest in the profession, they take the risk of even undergoing rigorous coaching for one more year to fulfil their dreams. Another fact is that we cannot do away with the reservation quota due to our complex socio-economic realities.

However, it is time to have a rethink on the procedure for admission into our

medical colleges. There are two pertinent reasons for this. Now we mourn the declining quality of students who opt for conventional degree courses, and, as already mentioned, many opt for medical education because of parental pressure or due to some other reasons.

In order to get around these situations, we need to think of revising the mode of admission to the medical course. In many developed countries, students opt for medical education after their pre-med or graduation, and the age of entry is usually 21 years. Here, immediately after their +2, at the age of 17 or 18 years, students choose the course without understanding the responsibilities and the commitments that are needed for the profession. If we decide to fix any degree in science, with biology as one of the subjects in +2, as the minimum qualification for admission to the medical course, it will serve two purposes. First, many good students will come for basic degree

courses in the colleges after their +2, and secondly, they will get enough time to think over and decide their career. This will be beneficial to the whole society as well as the students themselves. Moreover, there will be many good students for basic sciences, which is the fuel for developments in science and technology, and we will also get skilled and committed medical professionals in future. How-

ever, this is not an easy task. We have to overcome the vested interest of many who have investments in medical education.

But, the policy priorities should be in tune with the need of the society and the benefit of the people at large. Hence, we have to do away with the current pattern of medical admission and introduce a new procedure, i.e. make graduation the minimum qualification for medical ad-

mission, which will be beneficial to the student community and to the society in future.

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## Beneficial effects of shifting cultivation (*jhum*)

Shifting cultivation is an age-old practice believed to have evolved several thousand years ago. It is still being practised in the Northeastern Hill Region (Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland and Tripura) and other parts of the country (Orissa, Andhra Pradesh, Madhya Pradesh, etc.). In this system, crops are generally grown on a piece of land or an area by the cultivators (*jhumias*) only once. After crop harvest, the land is left fallow and the *jhumias* move to a new land. Thus, they move from one place to another and return to the former area after about 10 to 15 years or more. In the process a cycle is formed referred to as 'shifting cultivation'. Though this system of cultivation was considered good enough when it emerged, today increase in human population along with decrease in land: man ratio at an alarming rate have forced the *jhumias* to reduce the *jhum* (shifting) cycle leading to destruction of forest wealth, loss of soil cover, siltation of

reservoirs/rivers resulting in floods in the plains, etc. Thus this system of cultivation is now considered to be unscientific.

Why was this system considered good enough when it emerged? It is because shifting cultivation has its own merits in the sense that fallowing of land helps in conservation of soil moisture, enrichment of soil texture and soil structure, addition of potassium to the soil during the process of burning, increase in soil pH, increase in soil microbial biomass, restriction in outgrowth of particular pest(s)/and pathogen(s) for particular crop(s), least disturbance of top soil, development of a good crop canopy due to mixed cropping, no capital investment except labour and seeds which usually come from the household and above all, the outcome of organically economic produce – free from hazards of synthetic fertilizers/pesticides, herbicides. All operations, except cutting and burning of jungles are performed by women. Now suppose, there had been no increase in human

population, no decrease of land area, adequate time period of *jhum* cycle, etc., then this system of cultivation would have been widely accepted by us as a good scientific system. Then, it would have been possible to categorize this system of cultivation under 'all agricultural systems that promote the environmentally, socially and economically sound production of food and fibres', i.e. 'organic agriculture' or the system of natural farming proposed by Masanobu Fukuoka, i.e. 'one straw revolution'<sup>1</sup>?

1. Kesavan, P. C. and Swaminathan, M. S., *Curr. Sci.*, 2006, **91**, 145–146.

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## Looking East: familial support as a crucial predictor of treatment management in psychiatric illnesses?

Recently, an interesting study compared psychiatric practice among a group of 34 psychiatrists in Baltimore, Maryland, USA and an equal number from New Delhi, India<sup>1</sup>. Some of the major conclusions of this study were:

1. Delhi psychiatrists saw almost double the mean number of patients daily, but spent less than half the mean time on new evaluations when compared to the US psychiatrists.

2. Delhi psychiatrists were less likely to recommend psychotherapy along with the medications, though both groups had similar approaches to major disorders.

3. Delhi psychiatrists were more likely to utilize 'innovative/unique' intervention like secret administration of the drug in case of treatment refusal.

As the authors discuss in their article<sup>1</sup>, such a difference among the two groups of practising psychiatrists can partly be

attributed to the socio-economic and cultural differences of the patients, and the extent of involvement of the family and the community in treatment management. A remarkable point in this direction was that the mean percentage of patients informed of diagnosis (60 in Delhi vs 88.9 in the US) was lower in Delhi, but the mean percentage of families informed of diagnosis (81.8 in Delhi vs 66.3 in the US) was higher.