**Table 1. List of articles on medical education system of India**

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| **Sl.**  **no.** | **Title of the article** | **Name of the Authors & Year of publication** | **Critical analysis/Suggestions** |
| 1 | Global Demand for Medical Professionals Drives Indians Abroad Despite Acute Domestic Health-Care Worker Shortages | Margaret Walton-Roberts and S. Irudaya Rajan[6], 2020 | Around 69,000 Indian-trained physicians worked in the US, UK, Canada, and Australia in 2017, equivalent to 6.6 percent of the number of doctors registered with the MCI.  Ministry of Health and Family Welfare decided in 2011 to stop issuing a ‘No Obligation to Return to India’ certificate.  25 percent of Indians receive medical treatment from unlicensed providers, especially in rural areas. |
| 2 | Competency-based medical education in India: Are we ready? | Basheer A.[7], 2020 | The competency-based curriculum gives no clear guidelines regarding the assessment. Another issue relates to ambiguity regarding the role in internal assessment in the new curriculum.  Many medical colleges still have a substantial backlog of faculty awaiting basic training. |
| 3 | Medical Education in India: Past, Present, and Future | Praveen Kulkarni, K. Pushpalatha, Deepa Bhat[8], 2019 | Need to move away from traditional, teacher‑centered, content‑oriented model of education to the student‑centered,  and outcome‑oriented medical education system.  Highlighted several challenges for the successful implementation of CBME. |
| 4 | A cross-sectional survey on medical education needs of general practitioners and family medicine: Delhi, Himachal Pradesh, and Tamil Nadu, India | Surjeet Bakshi, Linda Kaljee and [Dana Parke](https://www.ncbi.nlm.nih.gov/pubmed/?term=Parke%20D%5BAuthor%5D&cauthor=true&cauthor_uid=31803647)[9], 2019 | 84.2% and 85.4% of the respondents agreed/strongly agreed that family medicine would benefit specialists and decrease health disparities.  Challenges include a lack of information about family medicine and patients' use of specialists for primary healthcare needs. |
| 5 | Competency-based undergraduate curriculum: A critical view | Rashmi Sharma, Harsh Bakshi, Pradeep Kumar[10] (2019) | Highlighted lacunae in the curriculum like de-emphasis on time-based training, exclusion of the concept of family medicine  Suggested sensitization and training of stakeholders and faculty, increase in several faculty, more questions on competencies (knows how, show/perform how) than only on the cognitive domain, more weightage for formative evaluation, OSPEs/OSCEs. |
| 6 | The Tyranny of the Medical Council of India’s new (2019) MBBS curriculum: Abolition of the academic discipline of family physicians and general practitioners from the medical education system of India | Raman Kumar[11] (2019) | The new curriculum exposes a treacherous hierarchical monopoly of hospital-based specialists' doctors over generalist community based primary care physicians. |
| 7 | Medical Council of India's New competency-based curriculum for medical graduates: A critical appraisal | KS Jacob[12](2019) | Stated that the focus of the new MCI curriculum is on continued use of specialists.  Stressed the significance of empowerment of teachers in General and Family Medicine and Community Health, who run primary and secondary medical facilities. |
| 8 | Medical Research in Medical College in India: Current Scenario and Ways to Improve it | Kanjaksha Ghosh, Kinjalka Ghosh[13] (2019) | Six to ten medical colleges publish more than 60% of research papers in indexed journals out of existing 450 medical colleges in India.  Poor mentorship, severe patient load, lack of research interest, lack of funding, and lack of multicentric co-ordinates research activity, lack of incentive for research, are few reasons for poor quality research. |
| 9 | Quality medical research and publications in India: Time to introspect | Anil Kapoor[14], 2019 | Introduction of research cell/institutional research committee, regular conduction of workshops on research methodology and writing a research proposal for a grant, making it mandatory for all faculty and residents to undergo such training, provision of funds and resources, provision of protected time, and a conducive environment for promoting research in India. |
| 10 | Pressure to publish: Index Copernicus and predatory journals are helping (?) academicians | Himel Mondal, Shailat Mondal[15], 2019 | Critically analyzed poor quality research done by Indian researchers published in Index Copernicus. |
| 11 | National Medical Commission Bill, 2019- Good intent but unmet expectations | Santosh G Honavar[16], 2019 | National Medical Council bill does not address the ill of postgraduate education and is prone to the politicization of its governing structure. |
| 12 | Medical Students’ Opinion and Perception of the Education Environment in a Medical College of Delhi, India | Sandeep Sachdeva and Nidhi Dwivedi[17] (2018) | 75.2% of students opined that current administration is student supportive and 94.8% were in self-assessment state of "happiness". |
| 13 | Globalization of Medical Education: Current Trends and Opportunities for Medical Students | Muhammad Rizwan, Nicole J. Rosson, Sean Tackett and Heitham T. Hassoun[18] (2018) | Studied the effect of privatization, globalization on medical education and development of physicians and proposed vigilance to ensure the quality and competency of physicians. |
| 14 | Medical education in India | Sethuraman K. Raman [19] (2018) | The current initiatives undertaken by the government and the regulatory agencies augur well for the betterment of medical education in the foreseeable future in India. |
| 15 | Letter to the Editor: Individual Researcher and Author Metrics: a Viewpoint from India | Durga Prasanna Misra, Anupam Wakhlu and Vikas Agarwal[20] (2018) | Proposed policy at the national level mandating universities and institutions to enable greater access to Scopus.  Need for greater awareness about such author and researcher level indices amongst academics.  Academics should be made aware of the need to accurately list the source of indices as the *h*-index listed on their CV.  Not only research publications but involvement in other scientific activities such as peer reviewing manuscripts should be valued. |
| 16 | Medical Council of India's amended qualifications for Indian medical teachers: Well intended, yet half-hearted. | Bandewar SV, Amita Aggarwal, Rajeev Kumar, Rakesh Aggarwal, Peush Sahni and Sanjay A. Pai[21] (2018) | MCI in (2017) amendment has not specified any particular index(es) for its requirements regarding research publications.  The amendment gives credit for a paper to only the first author and corresponding author.  Suggested three criteria: duration of service, number of research publications, and clinical/lab services & teaching for candidate eligibility for a position. |
| 17 | MCI Challenges to Manuscript Writing and Publishing | Mahesh Kumar Jain, Vijay Thawani, Sangita Totade[22](2018) | MCI should review the list of indices, should recommend only databases and not search engines, citation index should be included, all authors should be considered for credits.  MCI could focus on indexing quality e-journals. All specialties must-have the choice to publish in journals of their choice. |
| 18 | Indian government dissolves Medical Council of India | Sanjeet Bagcchi[23], 2018 | India’s government has discontinued the Medical Council of India and divested its functions to an appointed board of governors. |
| 19 | Medical Council of India Revised Criteria for Research Publications: A Dilemma | Vijay Kumar Barwal And Gopal Ashish Sharma[24], 2018 | Suggested that two/five/seven/ten of best papers should be considered for promotion in the academic ladder. Evaluation/ranking the best papers remain unanswered. Other forms of publications like editorials, commentaries, short articles, case series should also be considered. |
| 20 | The end of the Medical Council of India | Vivekanand Jha[25], 2018 | Several committees were formed to reform the MCI, but their recommendations were not implemented either cooperated with its directions.  Reasons like refusal to share information concerning the controversies in the process of assessing medical colleges, and its tardiness in managing admission processes led to its dissolution. |
| 21 | Controversies in Medical Education: National Medical Commission (A Draft Bill for Replacing Medical Council of India) | VR Minocha[26], 2017 | Criticizes various points of the draft NMC bill like infrastructural issues are considered ‘non-core areas’, relatively low status to basic degree (MBBS) holders in health system than the PG degrees. |
| 22 | Problems of medical education in India | Balbir Singh Deswal, Vijay K. Singhal[27] (2016) | Criticizes MCI as regard to doctor-patient ratio, quality of medical education, the exploding number of medical colleges, increasing capitation fees, shortage of faculty, etc. |
| 23 | The revised guidelines of the Medical Council of India for academic promotions: Need for a rethink | Rakesh Aggarwal, Nithya Gogtay, Rajeev Kumar, Peush Sahni[28] (2016) | Criticizes MCI's new guidelines for 'research publications' for promotion of teaching faculty for the authorship sequence rule, unclear national versus international journals, types of articles allowed, and suggested exclusion of Index Copernicus from the list. |
| 24 | Evolution of medical education in India: The impact of colonialism | Anshu and A. Supe[29] (2016) | Proposed that MCI needs to work out a national medical curriculum which caters to our country's needs with a  the symbiotic relationship between the indigenous and allopathic systems of medicine. |
| 25 | Faculty promotions in medical institutions in India: Can we improve the criteria? | VK Dhunkhed, MS Kurdi, PV Dhunkhed[30] (2016) | MCI faculty appointment and promotion rule does not give due consideration and weightage for teaching, administrative and clinical achievements like true quality and the different types of publications, quality of teaching, ability to guide the student, student satisfaction, patient care, clinical expertise, educational innovation, innovations and patents, involvement in various academic activities, community programs and service to the college and university. |
| 26 | Faculty perception of medical council of India basic course workshop in medical education technologies as a faculty development programme | Arvind Yadav, Savita Chaudhary[31], 2016 | 83.33% of faculties showed a positive response to the compulsion of basic course workshops of MCI for all faculties. 93.33% accepted that this course was beneficial in acquiring new concepts or knowledge.  Basic course workshops must be an integral part of the faculty development programme at the institute level. |
| 27 | The mandatory regulations from the Medical Council of India: Facts, opinions, and prejudices | S Bala Bhaskar[32] (2016) | For faculty promotion purposes, MCI could permit at least 25% of the publications to be either a Brief Communication or a Case Report. |
| 28 | India's foreign medical graduates: an opportunity to correct India's physician shortage | Sharma Anjali, Zodpey Sanjay, Batra Bipin[33] (2016) | In 2013, 9,700 Foreign medical graduates (FMGs) were unable to pass the FMGE to enter practice in India.  Additional training and hands-on apprenticeships can be introduced to help FMGs build their skills.  They can participate as observers in the established programs, can work outside of clinical care, including in research, hospital administration and public health to enable them to clear FMGE. |
| 29 | Health activists join forces to bid to reform Medical Council of India | Dinsa Sachan[34], 2016 | Public health activists in India have launched a coalition to try to reform the Medical Council of India. |
| 30 | The functioning of the Medical Council of India analyzed by the Parliament Standing Committee of Health and Family Welfare | SNIK Pandya[35], 2016 | Parliamentary committee summarises: Due to massive failures of the MCI and lack of initiatives on the part of the Government in unleashing reforms, there is total system failure due to which the medical education system is so affected that it is beyond the incremental tweaking of the existing system or piecemeal approach can give the contemplated dividends. |
| 31 | A radical prescription for the Medical Council of India | S Nagral, A Jain, S Nundy[36] (2016) | In 2014, the BMJ launched a campaign against corruption that sparked global interest in the rampant practices of kickbacks for referrals, revenue targets in corporate hospitals, and capitation fees in private medical colleges in India. |
| 32 | What is Wrong with the MCI? | Barua, M P, Mishra V, Singla M[37] , 2016 | Research infrastructure and funding are not essential criteria for the establishment of medical colleges in India.  MCI must lay down specific research-related minimum guidelines. |
| 33 | Medical Education in India: Introspection, Challenges, and Reforms – A vision. Journal of Anatomical Society of India. | Ashok Sahai[38], 2016 | Critically reviews the medical education system of India and provided suggestions like articles 7, 8, 10, 42, 45, 48, 51. |
| 34 | ‘Predatory’ open access: a longitudinal study of article volumes and market characteristics. | Shen, C., Bjork, B[39], 2015 | Surveyed journals and predatory publishers across the world.  States that 35 % of the publishing authors are from India and 27% of publishers are located in India. |
| 35 | Reforming the medical council of India | SS Tiwari[40], 2015 | By making decision-making more transparent, changing the balance of interests in the MCI, and empowering citizens, some real progress can be made in reforming the MCI. |
| 36 | Problems and Challenges in Medical Education in India | Sribas Goswami, Manjari Sahai[41] (2015) | Medical education should be integrated, problem-based, and evidence-based teaching. |
| 37 | Medical education in India: Problems and solutions | Sita Naik[42] (2014) | This article discusses the background, the current issues and possible future course of Indian medical education like article 8, 10, 45, 48, 51 |
| 38 | Corruption ruins the doctor-patient relationship in India | D Berger[43], (2014) | If prompt reform is not forthcoming from within the country (India), the medical licensing authorities of the UK, US, Canada, Australia, and New Zealand could withdraw recognition from all suspect private Indian medical colleges. |
| 39 | The Medical Council of India: the need for a total overhaul | SK Pandya[44], (2014) | Members of the council must be composed of medical, legal, and lay experts of unimpeachable integrity, and its creation must be open to public scrutiny.  Politicians and bureaucrats must have no say in the composition and operation of the council.  The process of election must be abolished. The present council of 85 or so members must be trimmed severely.  All proceedings of the MCI must be open to public scrutiny. |
| 40 | Privatization of medical education in India | S Davey, A Davey, A Srivastava[45] (2014) | Although privatization is a powerful tool to support the public health system to increase accessibility and affordability of the health care at low opportunity cost, at the same time, it should be monitored with the stringent implementation of the rules set by Medical Council of India so that health of the nation could not be compromised in the long run. |
| 41 | Medical education in India: Current Challenges and the way forward | Anjali Solanki & Surender Kashyap[46] (2014) | Discussed the flaws within the accreditation system. Presented various features of 'Vision 2015' – A seminal paper proposed by MCI |
| 42 | Medical Education in India: An Introspection | R. Kumar[47] (2014) | Inclusion of ethics in medical teaching and foundation course. Formulate the National Medical & Health education policy. Abolish Draconian laws haunting doctors and faculty. |
| 43 | Medical Education and Training: Implications for India | Akshay Anand and Sridhar Bammidi[48] (2013) | Critical analysis of topics like mobility between medical and research fields, human resource management, reorganization of medical education managers and encouragement of medical entrepreneurship |
| 44 | Improving the quality of medical education in India: The need to value and recognize academic scholarship | Thomas V Chacko[49], (2013) | The incremental increase in the number of poster presentations at the successive National Conferences on Medical Education in India demonstrates that faculty capacity and interest in engaging in educational research are already increasing in India.  Despite being engaged in educational research and other academic scholarly productive work, the faculties are frustrated by their work remaining unrecognized and unrewarded as well as being denied promotion by their institution by MCI. |
| 45 | Medical education in India at crossroads: Issues and solutions | P. Chandramohan[50] (2013) | The author critically analyzed several aspects of the medical education system of India like article 8, 10, 42, 45, 46, 51 |
| 46 | Medical education in India: Time to make some changes | T Jayakrishnan, M Honhar, GP Jolly[51] (2012) | The author critically analyzed several aspects of the medical education system of India like article 8, 10, 42, 45, 46, 48, 50 |
| 47 | Medical Council of India and Indian Medical Association: uneasy relations | G. Thomas[52], (2011) | Criticizes the functioning of Indian Medical Association |
| 48 | Ranking of Indian medical colleges for their research performance during 1999-2008. | G Prathap, BM Gupta[53], (2011) | During the period 1999-2008, the top 30 institutes (Karnataka, Delhi & Maharashtra) have published 32,393 papers which constitute 9.68 percent of the total cumulative research output from India during the same period. |
| 49 | Medical education in India: Is it still possible to reverse the downhill trend? | N. Ananth Krishnan[54] (2010) | The author critically analyzed several aspects of the medical education system of India like shortage of faculty, lack of quality research, an increasing number of colleges, etc. like article 8, 10, 42, 45, 48, 50, 51 |
| 50 | Medical Education – Present Scenario & Future | Mrityunjay, Dinesh Kumar, Seema Gupta[55] (2010) | They proposed the fusion of conventional-theoretical, experimental teaching with innovation aiming to develop undergraduates & postgraduates as community-teacher, true academicians/researchers. |
| 51 | Systems of medical education in India and abroad: A comparison | Anand Venkatraman, Sajan Jiv Singh Nagpal, Janus Patel[56] (2010) | Suggested practices like awarding degrees for rural doctors (BRMS), pre-medical coursework before entering a medical college, changing the structure of medical institutions and grading system, making residency must for all doctors, by offering dual degree programs like MD and Ph.D. simultaneously. |
| 52 | Medical education in India- Problems and Prospects | Rita Sood, BV Adkoli[57] (2010) | The authors discuss the issue of capitation fees and privatization of medical education in India similar to article 8, 10, 42, 45, 48, |
| 53 | Trouble at the Medical Council of India | Patralekha Chatterjee[58], (2010) | The article discusses the arrest of MCI president by CBI. The CBI website has invited the public to come forward with specific complaints about corrupt and unfair practices by MCI officials. A representation for patients ' organizations in MCI has been requested. |
| 54 | Gifts to doctors, scientific information and the credibility gap in the Medical Council of India | G Thomas, Joe Varghese[59] (2010) | MCI needs to do much more than adding another rule (like Ban on gifts to doctors) to set right the numerous infractions of its ethical code. The authors critically analyse the functioning of MCI similar to articles 8, 10, 42, 45, 48, 51. |

CBME: Competency-based medical education; MCI: Medical council of India; CBI: Central bureau of India