

OPEN PEDAGOGY AND PRACTICES IN MEDICAL EDUCATION

Najmul Hasan*, Bilal Ahmad, Nazrul Hasan***, Nurul Hasan****, Subuhi Anwar*******

B.H.M.S, Department of Humanities & Social Sciences**,*

*Department of Anesthesiology***, Department of Pathology*****,*

Sophia Homeopathic Medical College, Gwalior, M.P., India-474002.*

*Integral University, Lucknow, U.P., India- 226026**.*

*Noor poly care & Research Centre*****

*Era's Lucknow Medical College and Hospital, Era University, Sarfarazganj, Lucknow, U.P., India-226003***,*****.*

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ABSTRACT

Practice in medical education via open pedagogy is very useful in improving the knowledge of physicians and as well as students. In medical education system (CME) Continuing Medical Education is the specified form of program which supports continuing education in a broad spectrum of medical field. (CME) helps to maintain the standard of learning and developing ideas of medical field. There are many activities which takes place under the (CME) like-online events, publications, online programs, audio programs, video programs and other E-learning media activities. There are many programs which are delivered by the faculty of clinical experts; the process is meaningfully resolved by the faculty members which are conjoined in their financially relationship. CMEs critics complains of their drugs and devices often manufactured by the use of financially support to credibility towards the marketing of their own products.

Address for correspondence

Dr. Najmul Hasan

B.H.M.S.

Sophia Homeopathic Medical College,
Gwalior, M.P., India-474002*.

Email: drnajmulhasan7861@gmail.com

Contact no: +91-7786811666

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INTRODUCTION

Pedagogy is the study based method of practicing and teaching in the field of Education also known as (OEP) Open Educational Practices The role of (OEP) is to support the learning prospectus by improving the departments of education system (Beetham, H., Falconer, I., et al ,2012).

Importance of open pedagogy in Medical Education

In UK there is a program of health education It has a significant impact in the field of pedagogy in medical areas in which medical education occurs including the syllabus of (U.G) and (P.G) students and continuing professional developments once becoming a doctor. During their education there are many selective units for students, and materials are sketch by (SSUs) student selective units which often used in the educational texts such as pedagogy. Academic research shows that there is a widespread area of pedagogy in the prospectus of medical education department which optimizes the future. Pedagogy plays different roles in field of medical educational areas like- Nursing, Pharmacist, Dentistry, and many more paramedics courses (Nehls.N, 1995), (Parker BC, Myrick F ,2009).

About (CMEs) Continuing Medical Education

(CMEs) Continuing Medical Education is the program which helps to maintaining the standard of learning and developing ideas in medical field. There are so many activities which takes place under the program of (CMEs) likes – online events, publications, audio and video programs and other E-learning media activities. There are many programs which are delivered by the faculty of clinical experts; the process is meaning fully resolved by the faculty members which are conjoined in their financially relationship (Tham TY, Tran TL, et al, 2018).

(CMEs) Effectiveness in the field of medical education

Physicians are getting involved making an effort on patients quality life, physicians are in a constant pressure to learn how to getting involved in taking a charge of the patients physician recognizes the familiar and vast variety of newly developed knowledge of lab investigations, medicinal knowledge and therapeutic information's. (Stevenson, 2017). There is an intense pressure on low middle class income countries (LMICs), Communicable diseases

in aging by 2050, 80% of the planet will be occupied by people. (Tham, Tran, et al, 2018). NAM (National academy of medicine) in USA has focus highly quality prioritization of these chronic health conditions widespread globally (Goldberg, Crocombe, 2017).

Remarkable challenges of 21st century are more critical and actively engaged for clinical practices in CME. Academic research of (CME) Continuing Medical Education assist between the clinical practices and academic research plays an important role in providing a vast amount of knowledge for clinicians (Board and Heart j, 2012).

CMEs Open online (MOOCs) courses in health and medications

Educational landscape is an compulsory part of the exclusive world which is a self-directed unit of (CMEs) Continuing Medical Education which organizes back-to-back meetings it is advised to make sure (CME) activities provide the most value possible (Wiecha, Heyden, et al, 2010). In higher education's on internet era which utilizing higher quality of internet resources may be the fastest teaching efficiency accomplishes the experience of study to improving the skills in dynamic era. (Liyaganawardena, Williams, 2014).

MOOCs are the fundamental E-learning model in which online courses are easily available at free of cost or at a very low cost. At the University of Manitoba in 2008, Stephen Downes and George Siemens introduced the first MOOCs. (Hoedebecke, Mahmoud, et al, 2018). Alike, there are many types of E-learning gadgets are available in the market by which you can accessed MOOCs through computers, tabs and smart phones etc. (MOOCs) Massive open online courses are interactive too kept by the knowledge checks of viewers and attentive students by providing them an immediate guidance and un-understood concepts (Hoy MB, 2014).

MOOCs have been attached in a wide range of universities, colleges, businesses, teaching faculty and educators with in a very short period of time in fact that the number of educators and learners are also increases in all over the world (Liyaganawardena, Williams, 2014).

(MOOCs) Massive open online courses is successfully tuition like (NCAT) National center for academic transformation given a satisfactory result in the field of education If this approach is functioning in the board spectrum, enormous cost-savings are also guessed by the selecting courses, and significantly redesigning them (Ruth S, 2014).

Open online courses introduced results of a MOOC's Norwegian pilot programme to promote clinical commodities and designed the developmental structure for health professionals In several colleges of USA

department of pharmacy which branch out for the learning models transformation, innovation, and educational frame works (Maxwell, Fabel, Diaz, 2018).

Propose of Massive open online courses (MOOCs) in CMEs

There is no doubt that (CME) need to deliver the progress in growing of variable educational clinical benefits for the physicians which reform the specialty in medical organisations that are ideally situated to maintain the balance orientation of patients in centered educations (*Eur Heart J.* , Board ,2019). The requirement of learning is beneficial for upholding professional standards (Abrahamson, Baron, Elstein, et al, 1999). To the extent possible, CME content must change from its mostly face-to-face delivery style to take advantage of MOOCs' capabilities. To create a precise list of subjects by polling the CME stakeholders, an assessment is necessary. (Stevenson, Pozniak, 2017). Multi-media MOOCs access with cases base studies on active and interactive form of educations are set to replace other options as the most popular choice for CMEs that can provide long-term sustainability.

The learning management system, or (LMS), is a platform that hosts and tracks data for students related to massive open online courses (MOOCs). This data is related to learners' skills test, certification, content management, and other back-end services. However, MOOCs can also operate without an LMS if they do not involve student data tracking. Learning management systems (LMS) must be given through platforms that have been integrated into MOOCs (CMEs) in order to track and authorize data. This would require outside businesses to work with both profit and nonprofit organizations to ensure that their systems can give education to a very large group of students. Medical society websites designed absolutely free for direct learners and contents are available for learners which are applicable for independently hosted (LMS).

World-wide medical societies is to be recognized as the subject matter of experts and are ideologically leads to place in the field of developmental contents. It may be exceedingly cost-effective and efficient for those contents which may the national medical society should simply adopt which explains the role of possibility of providing (CME) (MOOCs) world-wide in the field of medical societies (Nielson B, 2015-19).

Availability of (MOOCs) Contents in English

Remnant English is the preferred language for the provision of MOOCs series Contents making are available for local languages has a board spectrum (Liyaganawardena, Williams, 2014).

(MOOCs) Limitations in CMEs

Un-appealing (MOOCs) Massive open online courses and insufficient course motivation makes the difficulty towards the learners so, the (MOOCs) are created the contents for free learners and the development cost is also low In consequences of many courses in (MOOCs) are merely electronic pages that fulfil the criteria for (CME) compliance credits. (Daniel J, 2016).

Solutions and Achievements of (MOOCs) in CMEs

MOOCs courses which is in a short duration of time attracting to the wide range of viewers (Daniel J, 2016). The good quality of media addition needs to be properly chosen so that all important areas are covered by audios, permanent images, animations, videos that makes an inspiring experiences towards the E-learners (In-Focus, 2014).

MOOCs are providing animations, images, videos gives an inspiring experiences, MOOCs have recently completed there 20 years in Harvard university and there is an social media awareness platforms that can spread awareness achievements rated five stars (Hoedebecke, et al, 2018).

Involvement of sponcer's and organizations in CME (MOOCs)

Commercial sponsors, such as producers of pharmaceuticals and medical equipment, provide the majority of the money for CME through unrestricted educational permits and other funding sources (Setia, Ryan, Nair, et al, 2018).

Universities that can pay for costs and possibly even make money from their MOOCs by offering students an inviting environment in which to pay for courses (Daniel J, 2016).

The need for an alliance model with funding from both commercial and nonprofit sponsors is still present (ESC Board and Heart j, 2012).

Establishing educational goals in collaboration with independent groups, broadening the material with evidence, receiving backing from reputable sources, and working with an impartial partner to coordinate the program's delivery can result in appropriate industry-funded CME (Eur Heart J., ESC Board, 2019).

According to the assessment by independent groups, expert content would ensure that CME programmes weren't used for commercial advertising (Rebuttal, 2007). Any organisation that funds, grows, and approves educational materials should use methods that have been shown to be impartial and fair as well as to transform information and practises with equity and transparency. NAM also promotes collaborative relationships among professionals and patient groups, Preventative health

modules for health risk behaviours and the use of structures to evaluate and assess any ensuing improvements in the health care criteria are identified by doctors, health care organisations, and universities as critical components to incorporate when establishing best care procedures (Goldberg, Crocombe, 2017).

CME challenges and requirements

License, requirement is compulsory for CME in different occasions, which is necessary for "check box" requirements – in all developed areas (Nelson, 2019). Although the providers are neither bind and not authorized to create the applicable contents which can forces the physicians are separate behind the educational activities(Nelson, 2019).

CME reviews the 26 modules which improved physician's behavior and patient outcomes examined the scope that examined least to more effective study techniques using by CME (Bloom BS, 2005).

Some exclusive techniques are quite more effective and better changes are seem in the patients. Instructive educations, presentation materials, on the contradictory, Illustrate are quite beneficial effect (Davis DA, Thomson MA, et al, 1995).

CME is instructional and still quite often, accompanying the large number conferences and meetings IN spite of that CME techniques are more effective and using these ineffective methods are prevail Unproductive use of CME continuing reduced the standard of patient care, but also to the adequate use of other helpful resources (Stevenson, Pozniak, 2017).

In spite of the fact that clinical practices are require physicians to take part in a predetermined number of CME hours. Physicians are required CME credits obtain in many countries like assessments, documentations, performances and improvements CME is more satisfying in the field of learning if they are designed for the individual preferences of learners . (Miller, Thompson, et al, 2008).

Unluckily, current practices are not based on CMEs principles in many activities CME recognizing the needs of counting hours for the achievement of knowledge in physicians, capability and performances (Amin Z, 2000).

(CMEs) Health care issues

Health care is the huge assortment access in the economic wealth, funding around the globe. Health care professionals are inconsistency of access to training and also tell us to contribute in the significant difference in mortality and morbidity from NCDs in Several challenges (*Eur Heart J.*, Board, 2019). faces (LMICs) with (CME), e.g., out-dated syllabus, incomplete

infrastructures, lesser well-trained educators, cultural barriers (Liyanagunawardena, Aboshady, 2018).

In fact that many physicians were do not know about the potential advantage of CME because many of them were not attend the sessions of CME (Ali SA, Fawwad, Ahmed G, et al, 2018).

Appealing of Online CME is effective due to an availability of anywhere anytime, delivery of low cost and its increased impact on motivation for translated knowledge CME offering the physician's specially in term of time and money saving are particularly benefited for those who lives in rural and remote areas CME was found to be useful to expend the significant improvements in the field of clinical practices, knowledge and the most of the studies reviewed satisfaction among the (GPs) (Thepwoonga I, Kirby C, et al, 2014).

Costs structure of CMEs

There are Billions of dollar turnover of CME Industries spend per year (Hawkes N, 2008). CME revenue is certified and authorized by the council of USA which implicit \$2 billion in 2010 and it costs around \$2500 per attender in per annum excluding hostels, travels and other expenses (Kempen PM, 2012).

This suggestion is profitable and good for this industry which supports physician obligatory lifelong commitment of learning This is highly financial development burden for the CME the other impact is due to carbon emissions on environment due to air travelers have also sparked and sustainable debate on this matter of CME in medical conference (Hemmer NM, 2014-15).

Advantages of CMEs

CME Objectives is to help in proceeding the diagnosis of the patients care, to adopt them and train them in an effective manner (Bloom BS, 2005).

CMEs reviews confirmed that physicians are improving in their performance and also improving in the patient's outcome Synergistic activities are multiple involvements and focus submission of patient's outcome that leads to more positive results (Ravyn D, et al, 2014), (Cervero, et al, 2015).

CONCLUSION

In developed countries there is a program of health education which plays a significant role in the field of pedagogy in medical areas in which medical education occurs including the syllabus of U.G and P.G students and continuing professional developments once becoming a doctor. MOOCs based on the profitable performance with reachable contents which are flexible for the health care consumers, educators, organizations and medical societies. It play a

significant role in the development of the nation Concerned of production is more appealing in MOOCs in a synergistic way of intensive resource, teaching in advanced technologies for the treatment of disease elimination and prevention for further spread, which were deployed by the developing countries The popularity health is consequently related with MOOCs in the developed nations.

Continuing medical education (CME) Needs to base the attempts on acceptable contents for educational field to improve the balanced credibility in health care results. Even in developed nations, CMEs cost many billions of dollars annually, and only little more than half of this money is provided by the students themselves. Commercial sponsors, such as those that provide drugs and medical equipment, provide the majority of the money for CME through unrestricted educational permits and other funding sources. Approximately 75% of all CME provisions are made up of this in several European nations. Industries will continue to play a beneficial role in aiding organizations like medical societies produce fresh and inventive for E-learning educations, despite certain social concerns about commercialization in CMEs being voiced.

REFERENCES

1. Abrahamson S, Baron J, Elstein AS, et al. Continuing medical education for life: eight principles. *Acad. Med.* 1999; 74(12): 1288-1294.
2. Ahmed K, Wang TT, Ashrafian H, et al. The effectiveness of continuing medical education for specialist recertification. *Can Urol Assoc J.* 2013; 7(7-8): 266.
3. Ali SA, Ul Fawwad SH, Ahmed G, et al. Continuing medical education: a cross sectional study on a developing country's perspective. *Sci Eng Ethics.* 2018; 24(1): 251-260.
4. Amin Z. Theory and practice in continuing medical education. *Ann Acad Med Singapore.* 2000; 29(4): 498-502.
5. Beetham H., Falconer I., McGill L. et al. Open practices: briefing paper. *JISC.* 2012.
6. Bloom BS. Effects of continuing medical education on improving physician clinical care and patient health: a review of systematic reviews. *Int J Technol Assess Health Care.* 2005; 21(3): 380-385.
7. Cervero RM, Gaines JK. The impact of CME on physician performance and patient health outcomes: an updated synthesis of systematic reviews. *J Continuing Edu Health Prof.* 2015;

- 35(2): 131-138.
8. Collier R. Addressing bias in industry-funded CME. *Can Med Assoc.* 2014; 186(18): 1352.
 9. Daniel J. Massive open online courses: what will be their legacy? *FEMS Microbiol Lett.* 2016; 363(8): 20.
 10. Davis DA, Thomson MA, Oxman AD, et al. Changing physician performance: a systematic review of the effect of continuing medical education strategies. *JAMA.* 1995; 274(9): 700-705.
 11. ESC Board. Relations between professional medical associations and the health-care industry, concerning scientific communication and continuing medical education: a Policy Statement from the European Society of Cardiology. *Eur Heart J.* 2012; 33(5): 666-674.
 12. ESC Board. The future of continuing medical education: the roles of medical professional societies and the health care industry. *Eur Heart J.* 2019; 40(21):1720-1727.
 13. Goldberg LR, Crocombe LA. Advances in medical education and practice: role of massive open online courses. *Adv Med Edu Pract.* 2017; 8: 603-609.
 14. Hawkes N. What price education?. *BMJ.* 2008; 337: a2333.
 15. Hemmer NM. Flying for CME—a big carbon footprint. *Wilderness Environ Med.* 2014-15; 26(1): 107-108.
 16. Hoedebecke K, Mahmoud M, Yakubu K, et al. Collaborative global health E-learning: a massive open online course experience of young family doctors. *J Family Med Prim Care.* 2018; 7(5):884.
 17. Hoy MB. MOOCs 101: an introduction to massive open online courses. *Med Ref Serv Q.* 2014; 33(1): 85-91.
 18. In-Focus. Accessed in 2019: Lessons from MOOCs for Corporate Learning. Available from: <https://towardsmaturity.org/2014/05/12/in-focus-lessons-from-moocs-for-corporate-learning-2014>.
 19. Kempen PM. Maintenance of Certification (MOC), Maintenance of Licensure (MOL), and Continuing Medical Education (CME): the regulatory capture of medicine. *J Am Phys Surg.* 2012; 17: P72-P75.
 20. Liyanagunawardena TR, Aboshady OA. Massive open online courses: a resource for health education in developing countries. *Glob Health Promot.* 2018; 25(3): 74-76.
 21. Liyanagunawardena TR, Williams SA. Massive open online courses on health and medicine 2014. *J Med Internet Res.* 2014; 16(8): 55-58.
 22. Lunde L, Moen A, Rosvold EO. Learning clinical assessment and interdisciplinary team collaboration in primary care. MOOC for healthcare practitioners and students. *Stud Health Technol Inform.* 2018; 250: 68.
 23. Maxwell WD, Fabel PH, Diaz V, et al. Massive open online courses in US healthcare education: practical considerations and lessons learned from implementation. *Curr Pharm Teach Learn.* 2018; 10(6): 736-743.
 24. Marlow B. Rebuttal. Is CME a drug-promotion tool?: NO. *Can Family Physician.* 2007; 53(11): 1877.
 25. Morris L, Taitsman JK. The agenda for continuing medical education—limiting industry's influence. *N Engl J Med.* 2009; 361(25): 2478.
 26. Miller SH, Thompson JN, Mazmanian PE, et al. Continuing medical education, professional development, and requirements for medical licensure: a white paper of the conjoint committee on continuing medical education. *J Continuing Edu Health Prof.* 2008; 28(2): 95-98.
 27. Nehls N. Narrative pedagogy: Rethinking nursing education. *Journal of Nursing Education* 1995; 34(5): 204-2101.
 28. Stevenson R, Pozniak E. European CME needs the European specialist societies. *J Eur CME.* 2017; 6(1): 1319728.
 29. Nelson BA. Creating effective and efficient pediatric-specific CME content: more than just checking a box. *J Contin Educ Health Prof.* 2019; 39(1): 64-68.
 30. Nielson B. What's the difference between a MOOC and an LMS?. *CapitalWave Inc.* 2020; 11: 16-18.
 31. Parker BC, Myrick F. A critical examination of high-fidelity human patient stimulation with in the context of nursing pedagogy. *Nurse Education Today.* 2009; 29(3): 322-329.
 32. Ravyn D, Ravyn V, Lowney R, et al. Estimating health care cost savings from an educational intervention to prevent bleeding-related complications: the outcomes impact analysis model. *J Continuing Edu Health Prof.* 2014; 34(S1): S41-S46.
 33. Ruth S. Can MOOCs help reduce college tuition?: MOOCs and technology to advance learning and learning research (Ubiquity

- symposium). Ubiquity. 2014; 3: 1530-2180.
34. Setia S, Ryan NJ, Nair PS, et al. Evolving role of pharmaceutical physicians in medical evidence and education. Adv Med. Edu. Pract. 2018; 9: 777.
 35. Sissine M, Segan R, Taylor M, et al. Cost comparison model: blended eLearning versus traditional training of community health workers. Online J Public Health Inform. 2014; 6(3): 34-37.
 36. Shang F, Liu C-Y. Blended learning in medical physiology improves nursing students' study efficiency. Adv Physiol Educ. 2018; 42(4): 711-717.



Orcid ID:

Najmul Hasan - <https://orcid.org/0000-0003-3647-9116>

Bilal Ahmad - <https://orcid.org/0000-0002-3297-2758>

Nazrul Hasan - <https://orcid.org/0000-0003-0093-1991>

Nurul Hasan - <https://orcid.org/0000-0003-2126-127X>

Subuhi Anwar - <https://orcid.org/0000-0002-0505-1494>

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