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A Comparative Study on Medical Student's and Faculties Perspectives on the Incorporation of Virtual Reality in AETCOM Training in Medical Curriculum in India

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Abstract: *In order to enhance the cognitive, ethical, and attitudinal perceptions of the profession, the National Medical Council (NMC) has introduced the AETCOM (Attitude, Ethics, and Communication) module. Teaching methodologies include Case-Based Learning (CBL), Small Group Teaching/Discussion (SGT/SGD), Self-Directed Learning (SDL), and Symposiums. The implementation of the module across the country, however, faces many challenges, the most significant of which are the orientation of undergraduate students towards AETCom and delivery challenges. By administering a self-administered, anonymous questionnaire, the study will assess the knowledge, attitudes, and practices of medical faculty members and students regarding the use of Virtual Reality (VR) technologies in AETcom teaching and learning. The validated questionnaire will be disseminated via electronic media (Google forms) to the Medical Education Units (MEUs) of the various medical colleges in India after approval from their Institutional Ethics Committees. A self-designed, standardized questionnaire will be used to analyze the results. There is a lack of knowledge among faculties about the utility of VR technologies in medical education, especially the AETCom modules. The Indian medical curriculum will then be on par with the western countries' and, as a result, a better Indian medical graduate will be produced.*

Keywords: National Medical Council (NMC), AETCOM (Attitude, Ethics and Communication), Case-Based Learning (CBL), Small Group Teaching, Small Group Discussion (SGT/SGD), Self-Directed Learning (SDL), Virtual Reality (VR), Medical Education Units (MEUs).

REFERENCES

[1]. Jacob KS. Medical Council of India's New Competency-Based Curriculum for Medical Graduates: A Critical Appraisal. Indian J Psychol Med. 2019;41(3):203-209. doi:10.4103/IJPSYM.IJPSYM_166_19
[2]. Eckles, Rachael E.; Meslin, Eric M. PhD; Gaffney, Margaret MD; Helft, Paul R. MD Medical Ethics Education: Where Are We? Where Should We Be Going? A Review, Academic Medicine: December 2005 - Volume 80 - Issue 12 - p 1143-1152
[3]. Jivram T, Kavia S, Poulton E, Hernandez AS, Woodham LA, Poulton T. The Development of a Virtual World Problem-Based Learning Tutorial and Comparison With Interactive Text-Based Tutorials. Front Digit Health. 2021;3:611813. Published 2021 Apr 20. doi:10.3389/fdgth.2021.611813
[4]. Poulton T, Ellaway RH, Round J, Jivram T, Kavia S, Hilton S. Exploring the efficacy of replacing linear paper-based patient cases in problem-based learning with dynamic Web-based virtual patients: randomized controlled trial. J Med Internet Res. 2014;16(11):e240. Published 2014 Nov 5. doi:10.2196/jmir.3748
[5]. Zweifach SM, Triola MM. Extended Reality in Medical Education: Driving Adoption through Provider-Centered Design. Digit Biomark. 2019;3(1):14-21. Published 2019 Apr 10. doi:10.1159/000498923
[6]. Vozenilek J, Huff JS, Reznek M, Gordon JA. See one, do one, teach one: advanced technology in medical education. Acad Emerg Med. 2004;11(11):1149-1154. doi:10.1197/j.aem.2004.08.003

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[7]. Tadatsugu, Morimoto & Kobayashi, Takaomi & Hirata, Hirohito & Otani, Koji & Sugimoto, Maki & Tsukamoto, Masatsugu & Yoshihara, Tomohito & Ueno, Masaya & Mawatari, Masaaki. (2022). XR (Extended Reality: Virtual Reality, Augmented Reality, Mixed Reality) Technology in Spine Medicine: Status Quo and Quo Vadis. Journal of Clinical Medicine. 11. 470. 10.3390/jcm11020470.

[8]. Antoniou PE, Arfaras G, Pandria N, et al. Biosensor Real-Time Affective Analytics in Virtual and Mixed Reality Medical Education Serious Games: Cohort Study. JMIR Serious Games. 2020;8(3):e17823. Published 2020 Sep 2. doi:10.2196/17823

[9]. Riva G, Wiederhold BK, Mantovani F. Neuroscience of Virtual Reality: From Virtual Exposure to Embodied Medicine. Cyberpsychol Behav Soc Netw. 2019 Jan;22(1):82-96. doi: 10.1089/cyber.2017.29099.gri. Epub 2018 Sep 5. PMID: 30183347; PMCID: PMC6354552.

[10]. Ghosh, Arindam & Bir, Aritri. (2021). Role of written examination in the assessment of attitude ethics and communication in medical students: Perceptions of medical faculties. Journal of Education and Health Promotion. 10. 23. 10.4103/jehp.jehp_424_20.

[11]. Pottle J. Virtual reality and the transformation of medical education. Future Healthc J. 2019;6(3):181-185. doi:10.7861/fhj.2019-0036

[12]. Virtual reality: A medical training revolution during COVID-19 - Med-Tech Innovation [Internet]. Available from: https://www.med-technews.com/medtech-insights/vr-in-healthcare-insights/virtual-reality-a-medical-training-revolution-during-covid-1

[13]. Woodham LA, Ellaway RH, Round J, Vaughan S, Poulton T, Zary N. Medical Student and Tutor Perceptions of Video Versus Text in an Interactive Online Virtual Patient for Problem-Based Learning: A Pilot Study. J Med Internet Res. 2015;17(6):e151. Published 2015 Jun 18. doi:10.2196/jmir.3922

[14]. Rosner B. 6th ed. Publisher: Duxbury Press; 2005. Fundamentals of Biostatistics; p. 332