Quality Assurance of E- Learning in Health sciences:

Florence Githinji gives her insight on fostering competence and safety of future healthcare professionals in the context of the Digital Education Revolution.



Figure 1 : Simulation of managing PPH by Nursing students at Clarke International University

The Evolution of e-Learning in Health Sciences

The rapid expansion and integration of e-learning in health sciences has transformed education delivery, making it more accessible, flexible, and scalable. The increased reliance on digital education in health sciences has both opportunities and challenges. To ensure that future health care professionals are adequately prepared, it's essential to focus on fostering their competence and safety. Practical activities based on local institutional creativity and regional issues can reinvigorate the links between clinical practice and the health of people, through quality assurance and promotion. One form of a practical activity that can be identified is through the use of e-learning and technology. With the new generation of health professionals, some skills such as diagnosing and treating an array of diseases has become complex and challenging. These Health professionals also seem to portray other transferable skills which can be embedded with future curricular through the use of e-learning.

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E-learning encompasses a wide range of formats, including online courses, virtual simulations, online Project Based Learning (PBL) webinars, and digital resources. These tools have enabled the development of innovative pedagogical approaches, such as flipped classrooms, blended learning, and competency-based education, which have proven effective in enhancing learners' engagement and knowledge retention. Simulation videos are a popular form of media that allows individuals and organizations to create virtual environments and scenarios that mimic real-life situations. These videos are created using computer-generated graphics, animations, and visual effects to replicate various scenarios, ranging from scientific simulations to training exercises. They offer a unique and immersive way to convey information and simulate experiences that may be difficult or costly to achieve in real life.

Online Project Based Learning has a platform for learners to participate in real time problem solving and knowledge construction virtually. Ensuring the quality of e-learning programs has become a critical concern thus crucial to guarantee the competence and safety of future healthcare professionals. QA is an ongoing process that requires continuous monitoring, evaluation, and



Figure 2; Simulation of Cardiopulmonary Resuscitation (CPR) by student of Clinical medicine at Clarke International University

Challenges in e-Learning for Health Sciences

Despite the adoption and the advantages of e-learning, there are several challenges that need to be addressed to ensure its effectiveness in health sciences education; Digital divides with the disparity in internet access and digital literacy across different regions in Africa limits the reach of e-learning programs; the vast Western contexts, which may not align with the unique health challenges and cultural contexts of African countries. Also, maintaining learner engagement in an online environment can be difficult, the lack of face-to-face interaction and the potential for isolation can lead to lower retention rate. In addition, assessing the competencies of health science students in a virtual environment poses challenges, particularly in practical and clinical skills. Faculty Development is still a challenge to provide adequate support for faculty to transition to online teaching effectively. This is partly due to the absence of standardized QA frameworks for e-learning in health sciences, still a significant concern, which has also affected the credibility and recognition of qualifications.

Quality Assurance mechanisms in Fostering e-Learning for Health Sciences

Quality assurance in e-learning for health sciences involves a systematic process of evaluating and improving the quality of educational programs. Learners are able to access knowledge anywhere, anytime and virtually. In the context of health sciences education, we have witnessed that such curricula have changed, in order to meet the evolving demands of the healthcare system. Thus institutions offering e- learning in health sciences must demonstrate institutional commitment and governance by establishing clear policies, allocating resources, and ensuring the involvement of stakeholders in the QA process; as well as design curriculum to meet the specific needs of health sciences students, with a focus on relevant content, appropriate pedagogy, and alignment with professional standards. There is a need for continuous faculty development on online teaching methods, technical skills, and the use of digital tools. Providing Timely assessments and constructive feedback is also essential to support student learning; A reliable and scalable technology infrastructure is fundamental to the success of e-learning programs; A strengthened QA and M&E systems Institution for collecting and analyzing data on program performance, student outcomes, and stakeholder feedback to inform CQI initiatives. It university's responsibility to effectively prepare future health professionals to address health related issues with evolving changes within the healthcare landscapes through enhanced student involvement

Advocacy in Ensuring Quality in e-Learning for Health Sciences

Policy makers play a crucial role in the QA of e-learning in health sciences. This includes; Establishing clear QA guidelines for e-learning programs, including accreditation standards, program approval processes, and periodic reviews; Promoting collaboration among educational institutions, professional bodies, and industry partners to share best practices and resources for QA in e-learning; Investment in digital infrastructure, such as broadband internet access and e-learning platforms, is essential to support the expansion and quality of



A student learning online

e-learning programs; Ensuring Equity and Access to address the digital divide by implementing policies that promote equitable access to e-learning opportunities for all students, regardless of their geographical location or socio-economic status; and , ensuring continuous monitoring and evaluation of e-learning programs are necessary to ensure they meet the desired quality standards.

Conclusion;

E-learning in health sciences has the potential to transform healthcare education in Africa, but its success depends on the implementation of effective QA practices. By implementing these strategies and addressing the challenges, we can ensure that future healthcare professionals are equipped with the necessary competence and skills to provide safe and effective care in a digital age. The quality assurance of e-learning in health sciences is a critical issue that requires the attention and collaboration of all stakeholders, including policy makers, educators, and healthcare professionals. Therefore these key stakeholders must work together to ensure that e-learning programs are of the highest quality, meet the needs of learners, and contribute to the overall improvement of healthcare in Africa.

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E-Learning lights up Africa