EDITORIAL

OPEN ACCESS

The Digital Divide: Addressing Computer Literacy Among Medical Professionals in Pakistan

Gulfreen Waheed, MBBS, FCPS, MHPE, PhD Scholar (HPE), Principal & Director DME, HOD Obstetrics & Gynaecology/ Editor in Chief, Avicenna Journal of Health Sciences, Avicenna Medical & Dental College, Lahore

Correspondence: gfwaheed@avicennamch.com

In Pakistan, the coordination of computerized advances in medical care conveyance faces a huge obstacle: the advanced hole among clinical experts. This hole, portrayed by an absence of computer proficiency, comes from different financial, instructive, and social variables. Restricted admittance to innovation during adolescence, generational variations in innovation reception, and deficient preparation open doors add to this test. Also, social standards and institutional practices inside the medical services area might frustrate the hug of advanced developments. Thus, clinical experts might battle to use computerized apparatuses actually, hindering the modernization of Pakistan's medical care framework. This is because there are variations in the computer literacy knowledge among medical professionals.[1]

Tending to this gap is significant when it comes to medical care and subsequently on the results. This is important in the context of Pakistan. As the medical care scene progressively get modernised, for example, with electronic records and telemedicine, spanning this gap is curcial. By enabling clinical experts with the essential computer education abilities and encouraging a culture of development and flexibility, Pakistan can guarantee that its medical services framework stays receptive to the advancing necessities of its populace. In this way, purposeful endeavors are expected to give far-reaching preparation programs, tailor instructive assets, and sanction steady strategies that empower clinical experts to flourish in a computerized medical services climate.

Admittance to computers during youth altogether influences computer proficiency levels sometime down the road. In Pakistan, variations in admittance to innovation persevere, with country regions and financially burdened networks confronting more prominent difficulties in getting computers and web availability. More seasoned clinical experts frequently miss the mark on the same degree of commonality and solace with computers contrasted with their more youthful partners. This divide results in a deficiency in digital literacy skills necessary for effectively utilizing digital health technologies, such as navigating digital platforms, interpreting online health information, and utilizing telemedicine services. Consequently, staying current with the latest healthcare innovations becomes challenging.[3] Thus, this generational hole in innovation reception can obstruct the reconciliation of advanced apparatuses and ruin cooperation and correspondence inside medical care settings.

Clinical training and expert advancement programs in Pakistan may not focus on or sufficiently address the significance of computer proficiency. The healthcare system there lacks the necessary infrastructure and connectivity to support widespread digital technology adoption, further exacerbating the issue.[2] Subsequently, numerous clinical experts miss the mark on fundamental abilities to use advanced innovations actually in their training. Protection from change inside the medical care calling can introduce a huge obstruction to improving computer proficiency and taking on computerized innovations. A few clinical experts might be reluctant to embrace innovations because of worries about protection, security, work process interruption, or see dangers to proficient independence. Beating protection from change requires viable correspondence, partner commitment, and initiative help to advance a culture of development and persistent learning. The shortfall of extensive government approaches, guidelines, and interest in advanced foundation and schooling can obstruct endeavors to connect the computerized hole among clin-ical experts. An absence of key preparation, financing, and coordination at the public level might bring about divided or impromptu drives that neglect to address foundational obstructions to computer education and innovation reception in medical care.

Differences in admittance to quality clinical training and preparing amazing open doors can propagate the computerized hole among medical services experts in Pakistan. Clinical schools and preparing establishments might need assets, skills, or motivating forces to integrate advanced proficiency training into their educational plans. Accordingly, graduates might enter the labor force poorly ready to explore the undeniably innovation-driven scene of present-day medical services practice. The absence of computer education among clinical experts obstructs the

reception of computerized well-being developments, for example, electronic well-being records (EHRs), telemedicine, and well-being data frameworks and it poses a barrier to implementing national health information systems, crucial for effective healthcare planning and resource allocation.[4]These advances can smooth out medical services conveyance, work on understanding results, and upgrade correspondence among medical care suppliers. Notwithstanding, without adequate computer proficiency, clinical experts might battle to use these instruments.

Wasteful utilization of innovation because of low computer education can bring about deferrals, blunders, and shortcomings in medical services conveyance. For instance, clinical experts might battle to precisely include patient information in electronic records or speak with associates utilizing computerized stages. These difficulties are a challenge to the nature of care. Clinical experts with restricted computer education face obstructions in accessing these doors, further worsening the medical care labor force.

Executing appropriate computer programs for clinical experts at all vocation stages is fundamental. These projects ought to cover essential computer abilities, like programming and exploring electronic record frameworks. These should also include new innovations in computer technology and information security. Medical schools need to incorporate computer proficiency training into their educational programs to guarantee that these future medical professionals will be ready to explore the modern healthcare landscape.

In addition to this, offering studios, classes, and online courses custom-made to the particular requirements and difficulties faced by medical services experts in Pakistan should be implemented. Coordinated efforts between government organizations and the medical services associations can work together. This will turn the events and execute the compelling methodologies and improve computer literacy of clinicans. Public-private organizations can use assets and aptitude from various areas to exhaustively resolve this diverse issue.

Perceiving the one-of-a-kind necessities and difficulties faced by more established clinical experts, fitted help projects ought to be created to assist them with further developing their computer education abilities. These projects could remember one-for-one training, peer coaching, or designated studios intended to oblige different learning styles and inclinations. Given the far-reaching utilization of cell phones in Pakistan, utilizing portable innovation can be a powerful method for upgrading computer education among clinical experts, particularly in remote or underserved regions. Versatile applications and online assets can give available and intelligent learning open doors, permitting medical services laborers to assemble their abilities at their speed and accommodation.

Empowering a culture of deep-rooted advancing inside the clinical local area is fundamental for guaranteeing continuous expert turn of events and variation to developing innovations. Clinical affiliations, proficient social orders, and scholastic organizations can play a significant part in advancing consistent learning valuable open doors, and encouraging a mentality of interest and development among medical care experts. Further developing admittance to solid web availability and putting resources into the important framework to help computerized advances is key for defeating obstructions to computer education in Pakistan. Government drives, confidential area ventures, and worldwide associations can assist with extending broadband inclusion and give fundamental equipment and programming assets to medical care offices the nation over.

Leading exploration and assessment studies to evaluate the adequacy of mediations pointed toward upgrading computer education among clinical experts is fundamental for illuminating future techniques and distinguishing regions for development. By gathering information on results like information obtaining, abilities advancement, and innovation reception rates, policymakers, and partners can refine their methodologies and apportion assets all the more successfully. Bringing issues to light about the significance of computer education in medical services settings is pivotal for earning backing and cooperation from partners at all levels. Backing efforts can feature the advantages of computerized advancements in working on persistent consideration, improving productivity, and diminishing medical care differences. By connecting with policymakers, medical services pioneers, and the general population, these missions can activate assets and drive energy for drives pointed toward spanning the computerized partition.

However, by executing a thorough arrangement of procedures — including schooling and preparing programs, framework improvement, promotion

endeavors, cooperation with innovation accomplices, and impetuses for expertise advancement — Pakistan can connect this gap and open the maximum capacity of computerized well-being arrangements. Enabling clinical experts with essential computer education abilities won't just upgrade their capacity to explore the intricacies of present-day medical care but also cultivate a culture of development, joint effort, and nonstop improvement inside the medical services labor force.

Addressing this issue in Pakistan, where the doctor-to-patient ratio is close to 0.83 physicians per 1000 individuals in the population, requires a comprehensive strategy involving stakeholders at all healthcare system levels[5]. At all levels, stakeholders need to sit together to ensure medical curricula is updated to include comprehensive training in computer skills and digital health technologies. This should focus on theoretical knowledge and practical skills, ensuring that medical graduates are well-equipped to navigate the digital aspects of modern healthcare.[5]

Eventually, by focusing on interest in computerized proficiency and embracing innovation-driven ways to deal with medical care conveyance, Pakistan can accomplish its objectives of further developing well-being results, decreasing variations, and propelling the general prosperity of its populace. Through purposeful endeavors and aggregate activity, Pakistan can situate itself as a forerunner in utilizing computerized development to address the medical services difficulties of today and tomorrow.

REFERENCES

1. Ashfaq A, Memon SF, Zehra A, Barry S, Jawed H, AkhtarM, Kirmani W, Malik F, Khawaja AW, Barry H, Saiyid H. Knowledge and attitude regarding telemedicine among doctors in Karachi. Cureus. 2020 Feb 9;12(2).
2. Hassan MM, Aamir S, Malik N, Naeem N, Avais MA, Shaikh GM. Use of the Computer and Internet by Teachers in Medical Education: A Study at Medical Colleges of Pakistan. Pakistan Journal of Medical & Health Sciences. 2022;16(11):617.
3. Tunio MN, Arain NR, Tunio SP. Assessment of computer literacy at secondary education level in rural areas of Sindh (Pakistan). International Journal of Emerging Science and Engineering (IJESE) ISSN. 2013:2319-6378.
4. Malik M, Kazi AF, Hussain A. Adoption of health technologies for effective health information system: Need of the hour for Pakistan. Plos one. 2021 Oct 7;16(10):e0258081.
5. Kazi AM, Qazi SA, Ahsan N, Khawaja S, Sameen F, SaqibM, Khan Mughal MA, Wajidali Z, Ali S, Ahmed RM, Kalimuddin H. Current challenges of digital health interventions in Pakistan: mixed methods analysis. Journal of medical Internet research. 2020 Sep 3;22(9):e21691.