Health informatics in medical education in Peru: are we ready for digital health?

Informática en salud en la educación médica en el Perú: ¿estamos preparados para la salud digital?

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Dear Editor,

Digital health applications have demonstrated benefits in several healthcare outcomes therefore it has become a serious alternative to getting Sustainable Development Goals 2030 related to health [1]. In recent years, Latin America is creating policies and strategies for digital health. Peru is one of the earliest countries in Latin America that establish policies for eHealth and digital health but its implementation in the real world is limited [2]. It is well known that some medical schools have courses related to informatics, Health Informatics (HI), or even medical informatics but there is no evidence about how many of peruvian medical schools teach HI within their curricula or what content or topics are provided.

We assess HI training in peruvian undergraduate medical curricula. A list of authorized universities by the National Superintendence of Higher Education (SUNEDU) was prepared. Then, the curricula of all the universities offering medical education were identified through their official websites. Relevant courses on informatics competencies and teaching approaches were identified in each medical curriculum using the search function to identify keywords (informatic*, technolog*, "electronic [health/medical/clinical] record", "eHealth" and "digital health") [3]. Additionally, one student from each school was contacted to collect or corroborate information of interest. The specific aspects of these courses were compared against recommendations of the International Medical Informatics Association (IMIA) on Biomedical and Health Informatics Education [4]. We considered learning outcomes in terms of levels of knowledge and skills for professionals in health care in their role as Information Technology users (introductory or intermediate level) but not as specialist (advanced level) [4]. The presence or absence of these recommended learning outcomes in each course on informatics or HI was verified.

We identified 32 authorized universities with medical schools (17 public universities). All 32 undergraduate medical curricula documents were reviewed, and less than half of medical schools offer courses related to information and communications technology (46.8%, 15/32) or specific courses in HI or medical informatics (9.3%, 3/32), all courses were not according to IMIA recommendations. The majority of courses were scheduled in the first three years of university (17/18) and they were mandatory (15/18).

These results suggest that undergraduate medical education in Peru neglects HI competencies set out by international standards and probably our findings are similar to other countries from Latin America. Currently, the use of information and communication technologies is a core

competency across all doctors and health professionals due to human resource digital readiness being a critical factor to scale and sustain digital health [3,5]. Therefore, the medical curricula of universities need to be urgently updated to prepare doctors to develop a critical digital health mindset with openness to innovation, and the capacity to assess health technologies beyond training in digital skills, and digital health's ethical and legal implications.

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