EDITORIAL
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Technological production and innovations within the health sector

Produção tecnológica e inovações na área da saúde

Producción tecnológica e innovaciones en el sector salud

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Scientific production on innovative technologies in the health area has been frequent over the last two decades in Brazil, especially in postgraduate studies. In the area of health, it has been developed primarily in the form of methodological studies. This type of study investigates, organizes and analyzes data in order to construct, test the validity of and evaluate technologies. In the field of health and also in education, the term technology should not only refer to materials and equipment[6]. This concept needs to be expanded, as it is still restricted even by the World Health Organization, which defines health technology as devices, medicines, vaccines, procedures and systems developed to solve a health problem and improve quality of life[4].

Although health is a constitutional right for all and a duty of the state, providing comprehensive care cannot mean supplying all the technologies available on the market to all people, as this would compromise the sustainability of the health system. It is therefore important, given the huge technological production in the health area, to assess the real benefits and safety of the technologies produced. It is also necessary to consider that the validity of an innovative technology is not absolute but must always be considered within a context and with a well-defined purpose and scope. Successfully exploring new ideas is no easy task. It requires exhaustive reading and knowledge of the products and processes available on the market and the paths taken to test their validity. Identifying a knowledge gap in the area of health technology and innovation requires study and adequate sources, with access to up-to-date, quality scientific literature.

In this sense, the classification of health technologies is a challenge, since it is distinguished into three types of technologies: 1) hard technologies (instruments, standards and technological equipment), 2) soft-hard technologies (structured knowledge - theories, models of care, nursing process) and 3) soft technologies (bonding and welcoming relationships), while Nietsche *et al.* (2005) maintain three types, but propose a different classification: i) Care Technologies (techniques, procedures and knowledge used in care), ii) Educational Technologies (grouping together means of helping to form an awareness of healthy living) and iii) Managerial Technologies (systematized and tested process for managing care). Other existing classifications are less commonly used in healthcare[2].

Today, in addition to the existing classifications and product or process innovations, a profitable type of innovation today is that of new business models and new organizational methods. Innovation (with a significant impact) should not be confused with the process of continuous improvement. The latter does not create a competitive advantage in the medium to long term, as it only keeps products competitive in terms of cost. Regarding the impact or repercussion of innovation, it can be incremental, with small advances in the benefits perceived by the consumer, or radical, when it represents a drastic change in the way the product or service is consumed and generally brings a new paradigm to the market segment, modifying the current business model. Innovation

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is essential to the sustainability of countries, and innovation is even more relevant in very competitive markets and when the products offered by the providers are almost equivalent. Innovations are relevant because they allow access to new markets, increase revenues, form new partnerships, acquire new knowledge and, where they exist, increase brand value[3-4].

In countries, innovations make it possible to increase employment and income, as well as allowing access to the globalized world. Nowadays, there is an increasingly strong trend towards the open innovation model, in which ideas and projects are sought outside their territories, helping countries to add competitive advantages. From there, municipalities/states/countries can define a futuristic vision of their ambitions. In Brazil, the National Agenda for Health Research Priorities has been published and Science and Technology Week has been held, both of which are being updated. North American countries have focused on developing software, educational programs and applications[4]. Along these lines, the Brazilian Coordination for the Improvement of Higher Education Personnel (CAPES) has drawn up a list of what it considers to be technical production: 1) Social technology; 2) Professional training course; 3) Software/Application; 4) Manual; 5) Experimental technological protocol/application or technological adaptation; 6) Map; 7) Technical-scientific database; 8) Communication product; 9) Products/Processes in Secrecy; 10) Taxonomies; 11) Non-patentable process/technology and product/material[1].

For all this technological framework, it is important to thoroughly describe its creation process and test the evidence of its validity, especially the validity of its internal structure (dimensionality and reliability), as well as its external validity, when tested in the contexts to which it is applied with demonstrated effect. Managing health technologies with their assessment and monitoring of their life cycle and technological horizon contributes to the functioning of services, with efficient, effective and effective institutional actions, which have repercussions on the maturity of the country's technological matrix. Thus, the incorporation of technologies into the health system requires constant Health Technology Assessment (HTA). This is an important task in academic work, which contributes to the consolidation of knowledge in all areas.

CONFLICT OF INTEREST

The authors declared that there is no conflict of interest.

REFERENCES

1. CAPES, Coordenação de Aperfeiçoamento de Pessoal de Ensino Superior. Produção Técnica. 2019. Available from: https://www.gov.br/capes/pt-br/centrais-de-conteudo/10062019-producao-tecnica-pdf.
2. Merhy EE. Saúde: cartografia do trabalho vivo em ato. 3ª ed. São Paulo: Hucitec; 2002.
3. Moreira TMM, Pinheiro JAM, Florêncio RS, Cestari VRF. Tecnologias para a promoção e o cuidado em Saúde. 1ª ed. Fortaleza: EdUECE; 2018.
4. Vergara CMAC, Sampaio HAC, Jorge MSB, Moreira TMM. Tecnologias e-health em gestão em saúde: fundamentos para seu desenvolvimento e avaliação. 1ª ed. Curitiba: CRV; 2021.
5. Nietsche EA, Backes VMS, Colomé CLM, Ceratti RN, Ferraz F. Tecnologias educativas, assistenciais e gerenciais: uma reflexão a partir da concepção dos docentes de enfermagem. Rev. Latino-Am. Enfermagem. 2005; 13(3): 344-53. Doi: https://doi.org/10.1590/S0104-11692005000300009.
6. Polit DF, Beck CT. Fundamentos da pesquisa em enfermagem: avaliação de evidências para a prática de enfermagem. 8ª ed. Porto Alegre: ArtMed; 2018.