

INNOVATION IN HEALTH AND DENTISTRY

“Creativity is thinking up new things. Innovation is doing new things” Theodore Levitt



Orlando Monteiro da Silva, President of the National Association of Liberal Professionals. Former President of the Portuguese Dental Association.

What are we talking about with the concept of Innovation?

Innovation in health can be designated by the process of designing and implementing creative and advanced solutions to address challenges and improve people's health and well-being.

Innovation encompasses new ideas, clinical practices, technologies and approaches that generate value in improving the quality, efficiency, accessibility and effectiveness of health services.

The innovation is focused on simultaneously delivering better outcomes for patients, healthcare professionals and health systems as a whole.

Can you list some examples?

Yes, in general, innovation in healthcare can cover several areas:

- Medical devices
- Pharmaceuticals
- Treatment protocols
- Digital health technologies
- TeleHealth
- Electronic health records
- Artificial intelligence
- Genomics and precision medicine, among many other areas

Innovation also refers to the adoption of new models of learning, care delivery and new systems.

The objectives of innovation in the health area are:

- Drive improvements in health care access, prevention and delivery
- Enhance the patient experience
- Optimize resources
- Improve health outcomes for individuals and communities

Innovation in Health identifies four major areas*:

- Innovation arising from contexts of high need
- Innovation, predicting and risk
- User vs producer innovation e.g. Patient Innovation
- Implementation of innovation systems

Let's exemplify very briefly.

In the context of great need, the COVID-19 pandemic has had countless examples that many remember. Let's look at a picture that is worth more than many words:



Decathlon mask adapted for professional protection and patient ventilation.

The rapid emergence of vaccines was also in itself a remarkable innovation in terms of research and public health.

However, before an innovation solution proves capable of being adopted in practice, with benefit and value for society, many are tried without results for various reasons. There is a very great risk of innovation processes not being recognized and adopted.

That is why it is said that “innovation is = 1% inspiration (creativity) + 99% transpiration” (work).

The innovation that arises from users, usually dissatisfied, concerning certain products, techniques or services, is also of great relevance.

These approaches or attempts by users in the health area may have commercial objectives: to improve their own quality of life or to help other patients overcome limitations resulting from illness or accidents.

Take the case of a quadriplegic patient, Amit Goffer from Israel, who developed exoskeletons for paraplegics, and later a mobility device for quadriplegic patients. ^{**}



Amit Goffer, Israel | Tetraplegic after accident
“Once I realized there was not an alternative to the wheelchair, I couldn’t understand why!”

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Another example is that of Louis Braille. Blind in both eyes because of a childhood accident, Braille has developed a coding system that allows blind people to read and write quickly and efficiently.

As for systems innovation, there would also be a lot to say.

Value Based Health Care, i.e., the delivery of outcome-based health care, is an innovative system approach. In this case, it considers not the number of procedures performed, but the concrete results obtained by patients or consumers. The integrated or referenced care model that involves the collaboration and integration of healthcare providers to improve the services provided to patients is another example.

The interoperability of computer systems in the health area is undoubtedly a technological system innovation that is determinant for the sharing of data between health professionals, between institutions, for accelerating processes, improving diagnosis, improving the result by increasing the safety and quality of procedures and reducing costs.

Innovation can still be incremental or disruptive.

Incremental innovation refers to the gradual and continuous improvement of existing products, processes or services. The idea is to optimize rather than introduce radical changes.

Disruptive innovation entails the introduction of a new technology, product, service or business model that significantly disrupts existing and established markets. It offers new, simpler or more convenient, more affordable solutions, often at lower cost and targets not only traditional consumers but also wider recipients.

Some examples were streaming platforms, for example Netflix, which replaced the old video clubs and ATM banking, which replaced much of the banking at bank counters.

Dental implants are among the greatest examples of disruptive innovation in rehabilitation dentistry. Here symbolized innovation through a bridge, with the meaning that implantology has become a bridge to innovative solutions.



In short, innovation plays a key role in addressing health challenges, driving advances in research, promoting preventive care, and improving access to and delivery of health care.

At its core, innovation, in addition to creativity, is also very much a matter of investment, resource allocation, culture and organization.. ■

References: Filipa Breia da Fonseca, Pedro Pita Barros, António Bensabat Rendas. A Inovação em Saúde Vista por Dentro. Gazeta Médica 1; Vol. 9. Janeiro/Março 2022. [†]João Resende. Opinião: Gestão da Inovação 2013. ^{**}Pedro Oliveira. Gulbenkian Chair Professor, Nova SBE Professor MSO, Copenhagen Business School