Enabling a culture of evidence through high quality research

Ximena Alvira
Clinical & Research Manager at Elsevier

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Throughout the past decade we have experienced a rapid growth of medical knowledge and it is clear that the ever-increasing shift towards a more digitalised healthcare industry has played a significant role in this expansion.

Clinical and scientific data is now produced at an unprecedented speed and the rate of dissemination is second to none, and this has only been exacerbated in response to COVID-19. The challenge then lies in ensuring that published evidence meets the standards of medical science.

Through the delivery of over 100 research-related masterclasses, webinars, and workshops worldwide over the last three years, I have come to realise the enthusiasm that exists for research-related guidance and recommendations.

People value direction on how to optimise their research efforts, how to improve their understanding of evidence, including how it is produced and created.

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The importance of health research

Research leads to innovation and improvements in processes, products and services which serve to better patient outcomes, and healthcare quality and efficiency. The underlying mechanics that enable research to improve healthcare outcomes include, improvements in healthcare knowledge, procedures and training, alongside the integration of internal and external sources of knowledge.

To demonstrate that research is a key determinant of health improvement, an econometric analysis was conducted with 189 Spanish public hospitals. A causal relationship was observed between research output (number of documents published), research impact (number of citations per document and average quality of journals) in both medical and surgical domains and a shorter length of stay.

Furthermore, an increase in one standard deviation in the number of published articles in medical and surgical specialties, would lead to direct saving around €123 million (€79.5 million) per year at national level. The implications of these findings are astounding when considering development or updating of policies, processes, and procedures.

A study conducted in the United Kingdom has also showcased the health economic value associated with medical research funding. Conducting research in diseases that significantly impact health, such as cardiovascular disease, cancer, and musculoskeletal conditions, has been shown to deliver direct health benefits to patients, as well as being hugely beneficial to the economy and society.

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It is crucial for hospitals to encourage and motivate a research culture among their healthcare professionals to deal with current and future healthcare local and global challenges.

Continuous improvement cycles improve quality of care

The Quality and Safety Journey, developed in collaboration with, and adopted by, the National Society for Quality of Care and Patient Safety in Brazil, incorporates continuous improvement as one of the key pillars to support the delivery of safe, high-quality, cost-effective care. Continuous improvement is the basis for a learning system aimed at identifying and applying the best possible evidence to the care of patients. In other words, for healthcare institutions to improve, and population health programs to thrive, it is imperative that every policy, process, and procedure is constantly being reviewed and assessed.

The most beneficial results are those that respond to the needs of each individual, under differing circumstances and take advantage of large quantities of scientific data. According to a study by Provost LP, from the Institute for Health Improvement, the key components of a scientific approach to quality improvement must include clear, measurable processes and outcome goals, iterative testing, and appropriate analytic methods.

This is one of the main reasons why it is crucial for hospitals to encourage and motivate a research culture among its healthcare professionals. It is only through research and the acquisition of evidence that the effectiveness and impact on overall healthcare of current practices, methods, processes, and techniques can be reviewed and updated to deal with current and future healthcare local and global challenges.

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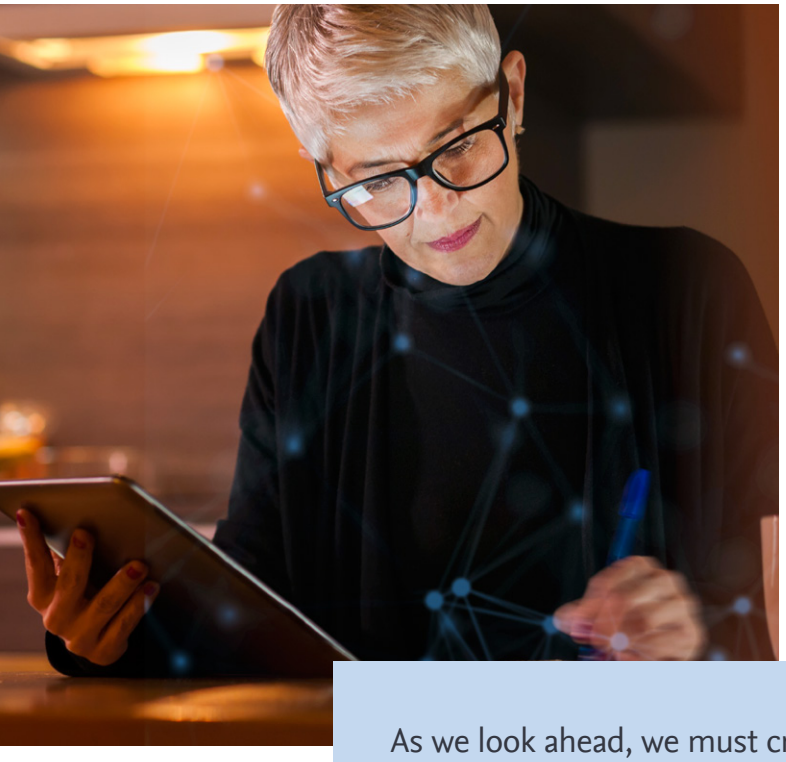
Increasing innovations to accelerate clinical research globally

It is important to consider the impact that SARS-CoV-2 infection would have had on us without a worldwide initiative to understand, prevent and treat the virus. The current pandemic provided a unique opportunity to mobilise the research community to align and accelerate research activities across the globe.

Interestingly, some regulators and funders of research are now calling for us to go one step further. When considering the research efforts conducted in response to the pandemic, there are many key takeaways and learnings that we must carry forward. Over the past year, we have recognised the need for the rapid mobilisation of research to respond to the global threat. We must continue to streamline regulations and approvals of clinical trials when considering other major threats to worldwide health.



Creating a culture that encourages and ensures high quality research

But none of this is possible without a culture that encourages and ensures high quality, reliable research.

It is worth acknowledging that despite the rapid growth in research output, the advances that benefit healthcare do not necessarily grow at the same rate. On the contrary, the steady increase in research has brought with it disturbing trends which can affect the validity and accuracy of findings. Research has shown that these problems are often driven by an unhealthy culture in which it can be more important to publish a result than publish clinically and scientifically valuable data.

As we look ahead, we must create a research culture based on good practices, quality, transparency, and ethics, with decision makers leveraging proven, evidence-driven research methodologies.

- As part of the Health Research Development Program, we, at Elsevier, work with healthcare organisations to advise on adoption of good practices and global standards to help improve the quality and efficiency of processes related to health research, from creating a research culture to improving chances of success when it comes to publication of results.
- Elsevier provides access to sources of curated content and authoritative resources such as ClinicalKey suite, STATdx, ExpertPath, Clinical Skills, and ClinicalPath. These are examples of sites where reliable, updated clinical information can be accessed, helping reduce the unmanageable data burden on the clinician, supporting the decision-making process, and facilitating standardisation and adherence to principles of good health research practices.

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In summary

Health research is crucial to ensuring a safe, high-quality, cost-effective care through its iterative mechanism of reviewing and improving. Our aim is to provide health researchers with knowledge and authoritative resources to support the research process in every step of the way, enhancing standardization and transparency of health research.

To improve care, we must all work together to positively impact care at every stage in the patient journey.

Learn more about Elsevier's Health Research Development Program and services available to your organisation. Visit our website to find out more.

Dr Ximena Alvira, Clinical and Research Manager, Elsevier

An enthusiastic and passionate medical and neuroscience doctor with broad experience in clinical practice, research, and dissemination of knowledge. Ximena's passion is to support clinicians, researchers and scientists in creating a culture of evidence based on ethical and transparent research processes. Ximena engages with providers worldwide to demonstrate the value of clinical decision support solutions in helping them to achieve their goals and improve outcomes.

[1]García-Romero, A., Escribano, Á. and Tribó, J., 2017. The impact of health research on length of stay in Spanish public hospitals. Research Policy, 46(3), pp.591-604.

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