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# Technology-Enhanced Healthcare Education: Transformative Learning for Patient-centric Health

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Emerald Publishing Limited Emerald Publishing, Floor 5, Northspring, 21-23 Wellington Street, Leeds LS1 4DL.

First edition 2024

Editorial matter and selection © 2024 Cristina Vaz de Almeida and Miltiadis D. Lytras. Individual chapters © 2024 the authors.

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### **British Library Cataloguing in Publication Data**

A catalogue record for this book is available from the British Library

ISBN: 978-1-83753-599-6 (Print) ISBN: 978-1-83753-598-9 (Online) ISBN: 978-1-83753-600-9 (Epub)



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# **Preface**

A new era of Digital Health has already emerged. Emerging and streamlined technologies challenge the entire lifecycle of health care. In this context, the classical agenda for the discussion of the phenomenon has been enriched with bold, delicate, and emerging topics.

Our book intends to communicate this transformation with an emphasis on health education and the capacity of technology to transform digitally the new generation of technology-enhanced healthcare education. Our basic ideas for the unique value proposition of our multidisciplinary edition are communicated in the next paragraphs.

From the beginning, we have to emphasize that in the centre of our approach and our analysis of the patient. We are very much interested in high-quality patient-centric health care with an emphasis on the utilization of health literacy and the composition of dynamic health and clinical services to move forward the vision of the digital transformation and value-based health care.

The arrival of technologies, such as artificial intelligence metaverse, cloud computing, and many others, strategists, policy-makers, physicians, health literacy experts, healthcare practitioners, computer scientists, psychologists, and social scientists provide a new sophisticated context for the design and implementation of socio-technical medical and clinical health services.

In parallel healthcare education institutions in their quest for a revised, updated, resilient, and robust strategy to reflect on these changes, need to deploy new methodological approaches, adopt innovative methods and vision, and the new generation of healthcare practitioners that will satisfy patients and all the other stakeholders.

In this volume, we bring forward various aspects of this resilient strategy for next-generation digital health and technology-enhanced healthcare delivery:

- Communication of lessons learned, case studies, and experiences from the implementation of digital health projects.
- Coverage of the digital transformation agenda for health education and health care.
- Designing of active and transformative learning strategies for healthcare education.
- Discussion of patient-centric challenges for healthcare education.
- Provision of a novel methodological approach to patient-centric health care.

- Strategizing the use of new technologies for enhanced quality of healthcare education.
- Utilization of health literacy for the delivery of high-quality health care and empowering health professionals, organizations, and communities.

Health research showed that satisfaction with patient centrality are golden rules that health and social organizations should have if they wish to qualitatively increase their services. In this context, the patient's experience means that the humanization of care must be always present and also enhanced with a technological component that utilizes tools and services enabled by artificial intelligence, augmented and virtual reality, and services, such as telemedicine and teleconsultation.

The strategies for the development of services in the areas of health and health education are constantly integrating digital solutions that provide biological, psychological, emotional, individual, and social added value.

The domain of Health Education and Training represents a progressive scientific domain with developments in both knowledge creation and applied practices. It is also related to an interactive connection of health specialists to patients. This is exactly the context of our scientific and methodological contribution through the applied approach we deploy. The development of a volume that captures the latest developments:

- On active and transformative learning for Health Education and Training.
- On Medical Technologies (MedTech) tools that are integrated into the medical practice.
- On instructional design and technology-enhanced learning as an enabler of enhanced quality in Medical Training and Education.
- On policy-making related to the integration of Innovative methodological approaches to patient-centric health training.

The new challenges in Healthcare Education at postgraduate and undergraduate levels require new methodological approaches and transparent integration of active and transformative technology-enhanced learning approaches. From this perspective, our book promotes the best practices and lessons learnt from the current pandemic period and also sets the priorities for the post-COVID-19 eras.

The purpose of the publication is to deliver an innovative edition for health specialists, health literacy specialists, educators, higher education medical experts as well students from medical, nursing, psychological schools, and health management professionals, and to update their knowledge and skills and capabilities with a patient-centric-oriented approach to Health Education.

The volume contributes:

- To the theory and the body of knowledge of the domain of Health Education and Training with novel theoretical approaches and methodological propositions.
- To the practice and the best practices of instructional design of Healthcare Training and Education.

- To the applied knowledge of the domain with key contributions to the integration of academia, industry, and research.
- The edition serves a diverse audience including health specialists and educators in a variety of health sciences.

This edition involves a multidisciplinary team that shares a set of synergies aimed at improving the patient's experience and their satisfaction within health organizations. Teamwork brings together professionals from the fields of engineering, communication sciences, biomedical, patient safety managers, doctors, and nurses.

The methods communicated in this book are based on quantitative and qualitative research, case study, participated and unattended observation, ethnographic studies, and methodologies that use techniques, such as qualitative content analysis, which aims to deepen the participants' feelings, their perceptions and vision of the world and the experiences experienced at the individual and group levels.

This volume also promotes this unique value proposition mix:

- Communication Competences
- Digital Health
- Digital Transformation in Health Education
- Gamification and Health Areas
- Health Education Strategies
- Health Services and Health System
- The Paradigm Shift from the Biomedical Model to a Biopsychosocial Model where emotions work with reason/rational
- The patient experience in the Health System

We thank all the authors who contributed to this book, as well as the EMER-ALD editors.

May this book open the door to research, to the debate of cases and good practices so that researchers and all those interested in these subjects can improve their performance and knowledge.

Cristina Vaz de Almeida & Miltiades Lytras