Perspective

A Vision of Future Healthcare Citizen and Potential Benefit Systems in Medicine

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DESCRIPTION

Advances in (bio) medicine and technical advancements have made it possible to aggregate high-dimensional, heterogeneous health data in order to better understand illness causes and make them useful for predictive, preventive and precision treatment. Although some features of systems medicine were viewed positively (for example, the use of smart technology, digitization, and networking in healthcare). The risk-benefit ratio for using risk-prediction models to anticipate illness occurrences and trajectories was shown to be quite negative. Unwanted data use, discrimination, and restrictions on fundamental rights raised ethical problems. To lessen negative feelings and attitudes toward systems medicine and to take use of its opportunities these concerns and needs of citizens and patients must be addressed in policy frameworks and health policy implementation mechanisms. The development of systems medicine has been debated as a groundbreaking approach to healthcare for several years. Systems medicine, in this view of the future, promises to give new impetus to participatory, proactive, and preventative healthcare.

There is currently no consensus understanding of systems medicine due to its complexity and the need to integrate disparate notions. This makes developing a shared vision and strategies for implementing systems medicine in healthcare more difficult Systems medicine is an interdisciplinary approach that brings together (bio) medical knowledge and digital tools for systems oriented thinking and action. It is not a medical situation discipline in the classic sense it evaluates complex biological linkages by combining vast molecular, biological, clinical, and demographic data as well as environmental factors. This systematic integration of disparate data sources aims to improve our understanding of disease causes early detection of disease origins more accurate forecasting of disease developments and application of tailored prevention and therapy approaches in medical care (precision medicine/personalized medicine).

Innovative key technologies are critical to systems medicine's success. High-throughput technologies, bioinformatics and medical informatics, Artificial Intelligence (AI) and big data analytics are just a few examples. The SARS-CoV-2 pandemic sparked a digitalization offensive in the healthcare industry with technologies being implemented considerably more quickly as a result of the epidemic's impact. In the SARS-CoV-2 epidemic, many countries have developed mobile software applications ("apps") as alert systems to allow for faster contact tracing and notification of potentially afflicted people. Furthermore the massive data collected on digital platforms is a huge source of fresh insights. Digital technology can potentially supplement or even boost the implementation of global health programs in particular circumstances. Through sophisticated data analysis, systems medicine approaches are already assisting in better understanding the dynamics of SARS-CoV-2 dissemination and disease development as well as identifying effective medications to treat SARS-CoV-2.

Implementation research's major goal is to uncover factors that influence the implementation process at various levels for example (individuals, group of professionals, the innovation itself). They are the ones who determine whether or not the implementation is successful. It explains how systems medicine will progress in the future. Future research will aim to capture the phenomena of the existing condition in order to derive and anticipate future developments. The findings are meant to aid in the development of new ideas. When a linear future projection of the existing situation is impossible and uncertainty a systematic use of foresight methodology might aid in eliciting new approach prospects and risks. It is critical to actively address both favorable and undesirable future trends. Impulses can be set on this basis particularly for political judgments. Studies on the public's or patients' views about digitalization, novel technology, and predictive tests.

The goal of this qualitative description study is to uncover the

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implementation issues from the perspective of the general public and patient groups in a future scenario of systems medicineoriented healthcare. It is a methodical and critical analysis of their perspectives on future trends rather than a list of individual participants' experiences.

On this foundation, potential facilitating and hindering factors are identified, and a more complete understanding of the aspects that may influence the future success of systems medicine implementation is presented. Hypotheses and arguments for a possible implementation of systems medicine from the perspective of citizens and patient.