



MOBILE HEALTHCARE – FROM EDUCATIONAL CURRICULUM TO PRACTICAL CHALLENGES

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Abstract

Mobile health is a new and rapidly growing area that has the potential to play a role in the transformation of health services and raise its quality and efficiency. Mobile Health issues relates to medical practices and public health, with the assistance of mobile devices, devices for monitoring the health status of patients, digital and other wireless personal devices.

The right to health is an inalienable human right that requires each person to create the conditions to be as healthy as possible. Based on that, it is particularly important to introduce the mobile healthcare issues into educational curriculum of healthcare professionals.

Mobile healthcare is closely related to health information technologies, involving exchange of health information in an electronic environment, which improves the quality of health care, prevents medical errors, reduces health care costs, increases the administrative efficiencies and expands access to affordable health care.

Keywords: Healthcare services, information technologies, education.

INTRODUCTION

Mobile Health is a new and rapidly growing area that has the potential to play a role in the transformation of health services and raise its quality and efficiency. Mobile Health refers to issues related to medical practices and public health, with the assistance of mobile devices, devices for monitoring the health status of patients, digital and other wireless personal devices.

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Mobile health supports the provision of high-quality health care and allows the performance of more accurate diagnosis and treatment. It also contributes more effective treatment of patients by healthcare professionals, as mobile applications promote healthy lifestyles, resulting in a stronger personalization, including individual therapy. Mobile healthcare extends patients' participation in the treatment process, as patients can participate more actively in the management of their health, they become more self-sufficient in their own home environment due to the technical solutions, which allow self-assessment and remote observation. Monitoring of environmental factors such as air quality changes, which may result to affection of the condition of personal health, could be controlled via remote devices, which could support healthcare professionals in their everyday work.

DISCUSSION

Mobile health education supports the provision of high-quality healthcare and allows introduction of more accurate diagnostic and treatment methods, as at the same time it is especially important to point that mobile healthcare does not intended to replace healthcare professionals, who retain their primary role in providing healthcare services.

Mobile health technologies serve more as a tool to support healthcare management and delivery of services, as it has the potential to play a key role in improving people's lives. Based on that, it is of particular crucial to ensure the safety and security of patients when using technologies that provide access to mobile healthcare.

Health information technology (health IT) involves the exchange of health information in an electronic environment. Widespread use of health IT within the health care industry will improve the quality of health care, prevent medical errors, reduce health care costs, increase administrative efficiencies, decrease paperwork, and expand access to affordable health care. It is imperative that the privacy and security of electronic health information be ensured as this information is maintained and transmitted electronically.

The processing of personal data in relation to patients is protected as a fundamental right. When introducing mobile healthcare topics into educational curriculum, it is essential to focus on relation between mobile transmission of health information and the protection of personal data. The protection of personal data is a fundamental right enshrined in Article 8 of the Charter of Fundamental Rights of the European Union and in Article 16 (1) of the Treaty on the Functioning of the European Union (TFEU). Compliance with data protection rules, data security and the lawful processing of personal data, including health and medical data, results to trust in mobile healthcare solutions. There are guidelines and strict requirements towards mobile applications in regard to personal data protection. Bulgarian national legislation provides detailed requirements applying to institutions hosting of personal data. Administrators cannot begin collecting, hosting and processing personal data before being officially registered by the Commission for Personal Data Protection. The Commission controls Administrators' compliance of personal data protection requirements and can impose mandatory instructions on them. Many activities and spheres of public life, in need of introduction of information technologies, in order to be able to deal with challenges and accessory requirements of modern information society. A control system review can help measure discretion, accountability, transparency and enforcement.

Having in mind the sensitive nature of health data, technical solutions in the field of mobile healthcare should include dedicated, appropriate security mechanisms such as encryption of patient data and appropriate patient authentication mechanisms to reduce security risks. The security and access control areas can also offer a favourable environment for future research and innovation activities.

Data protection is comprised of many elements, including where the data resides, how it is used, and who has access to it. Risks could come from both inside and outside an organization – from



employees to third-party vendors and cyber criminals looking for financial gain or to intentionally or unintentionally inflict damage to an organization's reputation.

Mobile healthcare could contribute to a more efficient way of delivering care through better planning, reducing unnecessary consultations and better prepared professionals receiving guidance on treatment and medication, but it is also crucial to focus on guaranteeing the right to health in relation to compliance with the standards and principles of human rights – principles such as universality, fairness, equality, the right to participate in decision-making, non-discrimination, transparency, etc.

There are legitimate concerns about the security of individuals' health data when using mobile health technologies, as individual personal data could be accidentally exposed or easily leaked to unauthorised parties. That is the reason why educational curriculum on mobile healthcare issues, when introduced to healthcare professionals, should be sufficiently flexible in order to allow personal development of healthcare professionals and at the same time to comply with the distinguished needs of each individual patient. Training should include teaching skills for understanding specialty-based public health issues; introducing effectively communication skills with patients, their families and with professional collaborators; and enhancing the ability of committing to the health and well-being of individuals and society through ethical practice and high standards of personal behaviour.

Education of healthcare professionals can help understand the ways in which patients and carers can be involved as partners in healthcare. Educational performance requirements include: actively encourage patients and carers to share information; show empathy, honesty and respect for patients and carers; communicate effectively; obtain informed consent; show respect for each patient's differences; describe and understand the basic steps in an open disclosure process; apply patient engagement thinking in all clinical activities; and demonstrate ability to recognize the place of patient and carer engagement in good clinical management.

CONCLUSION

Promoting and protecting personal health is essential to human welfare and sustained economic and social development, as mobile technologies could ensure that everyone has immediate access to every intervention that may improve personal health or prolong peoples' lives. The ability of patients to have full access to information in the course of providing medical care could lead to guarantees for patients' autonomy.

Access to healthcare, introduction of technological progress and provision of patient choice could result to sustainability in the healthcare sector. The main focus has to be put on the fact that the improvement of patient safety process is directly related to information and education. Patients should be informed on the safety standards, the safety measures and the best practices. They should be aware of possible risks, available alternatives and safety measures when medical services are being provided.

Institutions and organizations providing education and training of medical and non-medical specialists, should introduce into their curriculum special courses on mobile healthcare in order to contribute to the improvement of patient safety and the quality of healthcare. All properly relevant activities, related to prevention and control, directly benefits the improvement of patient safety.

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