Chapter 18
Web Healthcare Applications in Poland:
Trends, Standards, Barriers and Possibilities of Implementation and Usage of E-Health Systems

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ABSTRACT

This publication consists three main areas of interest: management of patient information in Polish health care system, novel ideas and recent trends on healthcare Web-based applications in Poland and healthcare information behavior of users of self-diagnosis and self-treatment systems in Poland. The methodology adopted includes a literature review for the utilization of Web-based healthcare applications in Poland as well as the trends of medical information systems and healthcare system in Poland. Furthermore the results of a survey research for the management of patient information in Poland are provided. Respondents have been asked about their interested and experiences on the new Polish information electronic health record system or others information systems dedicated to the management of the healthcare processes in Poland. Also another survey researches are presented. Respondents have been asked which internet tools they use for self-treatment and self-diagnosis and are also asked to rate their credibility.

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SUMMARY

The chapter presents the development and analysis of the use of ICT tools in e-health in the light of the results of studies conducted in the years 2013 - 2014. The authors described the trends and standards of medical information systems and healthcare system. In this chapter authors characterized the different kind of information system in health care, i.e. Electronic Verification of Beneficiary Entitlements (Polish original name of system is "Elektroniczna Weryfikacja Uprawnień Świadczeniobiorców", abbr. e-WUŚ), Integrated Patient System (Polish original name of system is "Zintegrowany Informator Pacjenta", abbr. ZIP), Health insurance card, Electronic European Health Insurance Card, and the system of electronic prescription e-Prescription. Based on literature review authors proposed the classification of ICT tools used in e-health. The results of a survey research for the management of patient information in Poland were also described in this chapter. Additionally the analysis of the factors determining the behavior of Internet users in the field of medical knowledge sharing via the Internet, communication tools used in e-health and medical diagnostics over the Internet were conducted and described. In the last part of this chapter authors proposed SWOT analyses "Web healthcare applications: Strengths, Weaknesses, Opportunities, and Threats" of determinants influencing the Internet user behavior in health care, taking into account the popularity and credibility of ICT tools in self-diagnosing and self-treatment. In the summary of this chapter authors concluded the e-health readiness in Polish information society.

INTRODUCTION

There is a Virgil quote which says: "The greatest wealth is health", indicating the importance of health to most if not all people. As a result most of us since the dawn of time look for information about healthy lifestyle, preventive healthcare and especially pieces of information connected with diseases and treatment. Nowadays, the majority of those interested in seeking information for healthcare is taking advantage of up-to-date technologies and hence are using the Internet. Although the available healthcare information has been radically increased over the years, the abundance of information impose additional difficulties when seeking trusty and reliable web-based resources as well as the information found in the internet should be evaluated since it could be dangerous. On the other hand, medical service providers see potential opportunities and try to apply modern technologies to enhance the healthcare services and reduce the associated costs. E-health for example provides interesting opportunities relating the modern information technologies with doctors' knowledge. E-health applications can include specialized medical portals, internet expert systems for disease diagnose based on symptoms, doctors' Internet advice, online (video) consultation with doctors, etc. (Furmankiewicz, Sołtysik-Piorunkiewicz, & Ziuziański, 2014; Ziuziański, Furmankiewicz, & Sołtysik-Piorunkiewicz, 2014). Multimedia and Web technologies can help in the specific healthcare applications to grow up the impact of their usability (Sołtysik-Piorunkiewicz, 2009, 2014a, 2014b, 2014c, 2015a, 2015b) and can change the favorable circumstances of user behavioral intention. The favorable circumstance is one of the dimensions of the Venkatesh unified user acceptance of information technology model (Venkatesh, Morris, Davis G., & Davis F.D, 2003). This model is presented in Figure 1. Unified theory of acceptance and use of technology (UTAUT) was proposed by American professor K. Viswanath (Venkatesh, Morris, Davis G., & Davis F.D, 2003) and his collaborators at University of Maryland. UTAUT is based on occurrence four factors influencing