e-Health Pharmaceutical Services Challenges: linking patients, pharmacists and physicians - Lessons learned from ePharmacare Project

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Background The utilization of Information Systems and Technologies (IST) for the provision of healthcare services – e-Health – is a trend in health systems that will probably have an important impact on the definition of new roles for the community and hospital pharmacist.

Purpose The ePharmacare project was designed to explore the development of online pharmaceutical services. This project aimed to develop a prototype of a web-based patient management service, establishing its acceptability, feasibility, sustainability, and adaptability to future changes, involving end users in the development of the application.

Method Following a literature research, an online survey on the use of IST in Portuguese pharmacies and an observational study to study pharmacists’ workload were organized to address system design requirements. The web-platform was tested in two different settings: a) Three community pharmacies and; b) A community pharmacist using the platform and scheduled meetings outside the pharmacy setting. Patients recruited were aged between 64 and 75, with at least a chronic medicine prescription. Initial training was given to pharmacists and to patients. The final evaluation of the web-platform included an eye-tracking test and a survey to both end users focusing on usability and utility of the application.

Findings Overall, the use of the platform by pharmacists has shown no signs of impact on their workload. However, the re-organization of pharmacy work, with clear roles assigned to each professional, and the possibility of using IST to improve pharmacy and patient management, are critical steps in the way to e-Health pharmaceutical service implementation across pharmacies. The frequent communication between patient and professional allowed the early identification of possible adverse reactions and showed some signs of possible impact on health outcomes that need to be further explored. Moreover, with the development of the work done in ePharmacare, the need to integrate several health information systems from the different healthcare providers became evident. Besides supporting chronic patients this system’s integration should provide disease management stakeholders with mechanisms that assure accountability, credibility, and acceptability among other dimensions, which in turn would impact on factors such as communication, trust, professional recognition and needs assessment.

Conclusion This work highlights the potential value and challenges e-Health pharmaceutical services may bring to the profession not to mention patients. Future research should focus on the impact of an integrated primary-care e-Health pharmaceutical service on patients? health status, professionals? workload, patterns of pharmaceutical services provision and costs.