Digital Transformation Efforts in Greece:
Evaluation of the E-Prescription System

Eirini GEORGOPOULOU\textsuperscript{a,1}, Joseph LIASKOS\textsuperscript{a}, Emmanouil ZOULIAS\textsuperscript{a} and John MANTAS\textsuperscript{a}

\textsuperscript{a}Health Informatics Laboratory, Faculty of Nursing, National and Kapodistrian University of Athens, Athens, Greece

Abstract. In recent years, Greece has made efforts towards digital transformation. The most significant was the installation and use of eHealth systems and applications by health professionals. The purpose of this study is to investigate the views of physicians on the usefulness, ease of use and user satisfaction of the eHealth applications and especially the e-prescription system. Data were collected by using a 5-point Likert-scale questionnaire. The study indicated that the usefulness, ease of use and user satisfaction of eHealth applications: a) are rated at moderate levels and b) are not affected by characteristics such as gender, age, education, years of practicing the medical profession, the type of medical practice and the use of different electronic applications.

Keywords. Digital transformation, eHealth, e-prescription, evaluation.

1. Introduction

In recent years, “digital transformation in healthcare is of increasing relevance” and is often expected to improve the quality of care [1]. Greece, following the developments, has sped up the digital transformation by implementing, evolving, and adopting information systems and eHealth applications. The evaluation of eHealth applications is necessary as it contributes to assessing their limitations and improvement, as well as their adoption by users. Physicians are an important category of users of these eHealth tools. Our study aims to evaluate the views of physicians in Greece on the usefulness, ease of use and satisfaction with eHealth applications. i.e. the Electronic Health Record (EHR), the Electronic Health Card (EHC), the paperless prescription, the e-appointment, the Telemedicine and especially the e-prescription system.

2. Methods

We studied a sample of 100 physicians working in the public or private health sector to evaluate the eHealth applications, especially the e-prescription system they use. Electronic questionnaires were sent to their personal e-mail or to the e-mail of Primary Health Care Centres of Athens through the 1st Health Authority of Attica database. Data was collected from May to July 2022. We used the “Usefulness, Satisfaction and..."
Ease of Use” questionnaire [2], which was translated and adopted in Greek. It had excellent reliability results for each of the three question categories: usefulness (α=.897), ease of use (α=.928) and user satisfaction (α=.862). Other data such as gender, age, level of education, computer skills, medical specialization, e-system used, were also recorded. For each of the three categories of the questionnaire we estimated a single score (mean value) averaging across the category answers of all respondents. Data was processed with SPSS v. 22.0.

3. Results

The study sample consisted of 100 physicians (52% men). Most of the participants were over 51 years old (57%), worked in a public healthcare organization (76%) and felt satisfied with their level of knowledge regarding the use of electronic systems (59%). The e-prescription system was used by 99% of the participants, the EHR by 23%, the e-appointment system by 45%, telemedicine by 9% and EHC by 2%. The respondents’ score per questionnaire category was rated at a moderate level, namely usefulness (mean: 3.66), ease of use (mean: 3.44) and user satisfaction (mean: 3.47). Men more than women (p = 0.051) found the system more satisfactory and so did doctors in younger age groups than those above 60 years old (p= 0.000). Women, on the other hand, found the system easier to use (p= 0.001). The degree of satisfaction of physicians, the usefulness, and the ease of use of eHealth applications are not affected by characteristics such as the gender, age, education, years of practicing the medical profession, the type of medical practice and the use of different electronic applications.

4. Discussion and Conclusions

The results of our study indicate that physicians are overall satisfied, and they find the systems useful and easy to use, like the results of [3]. As the e-Prescription system is used by almost every participant, it indicates that everyone is familiar with its use, as opposed to the recently implemented EHR or the not yet implemented EHC. The more computer literate the participants are, the less useful they find the electronic systems; this is probably justified since the level of dependency on these systems increases as users' knowledge of their use decreases. None of the participants had a computer driving license, perhaps because it was not included in their syllabus or due to the lack of time. A limitation of this study is the small sample of the study, and that the questionnaire was completed electronically. The results cannot be generalised for the Greek health system; however, they are encouraging for the adoption of eHealth systems and the establishment of digital transformation in Greece.

References