Physician-Reported Experience and Usability of the MyPal Platform: A Palliative Care Digital Health Intervention

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Abstract. There is a lack of research focusing on the physician-end, their experiences, and their perception of usability with an eHealth intervention. The aim of this study was to evaluate physician satisfaction, and perception of usability following the use of the MyPal platform, a digital health intervention to foster palliative care for hematological cancer patients. Participants were healthcare professionals active in the project's multinational randomized clinical trial evaluating the impact of the MyPal platform. A post-study electronic questionnaire was administered comprised of; 2 standardized questionnaires (PSSUQ, UEQ) and a feature satisfaction questionnaire, and an open ended question. All questionnaire scores were relatively high and the platform was more than marginally accepted by all participants.

Keywords. eHealth, palliative care, physician satisfaction, usability

1. Introduction and Background

There is a clear demand based on the literature for improvements in the designed digital health interventions for palliative cancer care on the basis of all stakeholder needs [1]. A recent review of digital health interventions across multiple diseases found that usability from the physicians side was assessed in only 33% of studies [2].

MyPal[2] is a collaborative H2020 research project aiming to use eHealth technologies in order to support palliative care for cancer patients and healthcare professionals (HCPs), via the adoption of the electronic Patient Reported Outcomes (ePRO) paradigm. The MyPal platform includes an HCP web application, with various modules to support the HCPs, where mainly ePRO data collected from patients are presented in an interactive dashboard via data-intensive visual analytics [3]. The presented study's primary objective was to evaluate HCPs perception of usability and satisfaction with the use of the HCP web app, and overall experience of using the system during the RCT in parallel

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with their routine obligations via standardized quantitative questionnaires after sustained use of a digital health intervention using this web application.

2. Methods and Results

The participants of this study were 14 HCPs that participated in the MyPal Randomized Clinical Trial (RCT). They used the MyPal HCP web platform for approximately a 12 month period, during which the HCPs had various obligatory and optional actions to perform via the MyPal HCP web platform[3]. After the whole MyPal study was completed, a study follow-up questionnaire was administered electronically (via the MyPal platform) to the HCPs. It consisted of: (a) the Post Study System Usability Questionnaire (PSSUQ) that scored 2.32 (sd: 1.15). The highest score was noted in the system usefulness subdomain (2.01, sd: 0.95). The platform was rated at 2.64 (sd: 1.17) in regard to interface quality and at 2.42 (sd: 1.17) for information quality. (b) The short version of the User Experience Questionnaire (UEQ) which scored 0.661 (sd: 1.25). The platform was rated at 0.679 (sd: 1.35) in the hedonic category which relates to the design, the aesthetical perceptions and 0.643 (sd: 1.15) in the pragmatic category. (c) A feature-specific satisfaction questionnaire to collect users' perceived satisfaction for each feature of the platform with scores ranging from 1 to 7, lower being better. The features means were calculated with relatively high scores and a mean across all features at 2.04 (sd: 1.27). And finally, an optional open-ended question was answered by 2 HCPs reporting on technical problems and the need for a better management system of the users' entries.

3. Discussion and Conclusions

This study offers insights into physician satisfaction, preferences, and perceptions of the MyPal HCP web platform. Based on the participants' feedback, the MyPal HCP web platform is accepted in terms of usability, and noticeably the system's usefulness is highlighted by all participants responses. The satisfaction levels of the individual features of the platform are also acceptable. Although in terms of usability the web application is relatively well accepted, it should be noted that big fixes were sometimes necessary, and this could significantly affect the user experience evaluation. Moreover, based on the answers provided to the open-ended questions some extra features would also be useful.

References

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