CONFERENCE ABSTRACT

Co-Designing an eHealth application to facilitate integrated care coordination between healthcare and social care providers: The PopUP! application

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Introduction

Within healthcare institutional settings, healthcare providers often rely heavily on the hospital's Electronic Medical Record (EMR) system to understand patients' medical history and to determine appropriate interventions. However, due to the lack of an IT system that allows for information integration and secure communication between healthcare and social care providers, fragmentation of patient information is commonplace. This adversely impacts the care coordination between care providers when providing continuity of care to patients in the community. In addition, with the rising numbers of cyberattacks on healthcare institutions, having a secured platform to facilitate integrated care coordination is urgently needed.

Aims Objectives Theory or Methods

This project utilizes co-designing methodology to co-create PopUP!, an eHealth digital application for seamless care coordination and secure sharing of patient records between healthcare and social care providers, to overcome the current system's gaps. Healthcare administrators(n=51), nurse clinicians(n=32), and allied health professionals(n=6) from five health ministries and social care sectors in Singapore were involved in five 2-5hours Design Thinking workshops over two weeks. This served to draft patient Journey Maps, assess needs and pain-points, ideate features, and co-create and co-refine PopUP!. Methods such as affinity clustering, Impact and Difficulty Matrix, and MoSCoW framework were utilized to select the final features.

Highlights or Results or Key Findings

The patient Journey Maps developed provided an overview of patient flow and helped identify key areas for intervention. Seven personas of potential end-users of PopUP! were identified from the needs and pain-points gathered, and guided the How, What, and Who PopUP! will benefit. Of the features shortlisted for the Minimally Viable Product (MVP) of PopUP!, three key features were included (i) an intuitive dashboard with an overview of patients' admission status, number of missed appointments, task lists and key figures of services undertaken, (ii) a medical record tab populated through a secure data integration from existing EMR to PopUP!, and allow seamless

sharing of data between authorized healthcare and social care providers, and (iii) One-Care Plan, a collaborative platform for communication and integration of shared plans for patient care across settings. The project is currently in the user-testing phase where potential end-users are involved to assess the usability of PopUP!

Conclusions

Inter-professional and cross-ministry collaboration should be leveraged upon to co-create an eHealth application that results in quality systems that benefits end-users. The PopUP! was developed to aggregate whole-of-person data for action and to be a viable, and effective solution to integrate patient care between healthcare and social care sectors.

Implications for applicability/transferability sustainability and limitations

The use of e-innovations coupled with co-designing and Design Thinking methodology and involving representative stakeholders ensures systemic acceptance and adoption of PopUP!. While the entire Design Thinking process was conducted virtually, the end-product was not compromised. Future improvements include involving patients in the co-creation process to enhance patient-centricity of PopUP!