Changes in the Cardiac Rehabilitation Workflow Process Needed for the Implementation of a Self-Management System

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Abstract and Objective

E-health interventions are of a growing importance for self-management of chronic conditions. This study aimed to describe the process adaptions that are needed in cardiac rehabilitation (CR) to implement a self-management system, called MyCARDSS. We created a generic workflow model based on interviews and observations at three CR clinics. Subsequently, a workflow model of the ideal situation after implementation of MyCARDSS was created. We found that the implementation will increase the complexity of existing working procedures because 1) not all patients will use MyCARDSS, 2) there is a transfer of tasks and responsibilities from professionals to patients, and 3) information in MyCARDSS needs to be synchronized with the EPR system for professionals.

Keywords: E-health; Cardiac rehabilitation; Self care; Workflow

Introduction

CR is a cost effective therapy provided by multidisciplinary care teams to support heart patients recovering from cardiac events and interventions. The Dutch Guidelines for CR state that professionals should conduct a needs assessment procedure where about 100 data items concerning the patient’s medical, physical, psychological, and social condition and lifestyle are gathered to compile an individualized rehabilitation programme [1]. To activate CR patients to self-management and to increase efficiency of clinical consultations, a web-based self-management system, called MyCARDSS, was developed in which patients can enter these data themselves. It complements an existing EPR system that is used by professionals [2].

The goal of this study was to investigate which adaptations to existing care processes are needed in order to implement this system.

Methods

Workflow models of existing care processes and envisioned care processes after implementation of MyCARDSS were created. To this end, three hospitals were visited in which current CR processes were analyzed and described in workflow models. These models were subsequently validated in interviews with care providers involved. From these clinic-specific workflow models, a generic model was derived, and this generic model was used as reference for construction of the ideal workflow model defining the envisioned CR process.

Results

It was found that implementation of the system will lead to an increase in process complexity unless all patients will use MyCARDSS, which is probably unrealistic. Patients who lack competencies to use MyCARDSS or do not have internet access at home should have the option to use paper questionnaires. The clinics have to offer two variants of the questionnaires, on paper and online by MyCARDSS. Then, patients who start using MyCARDSS will be activated in self-management for their disease, which asks of health care professionals to take on certain new responsibilities and tasks. Health care providers will be required to increase involvement of CR patients in care through teaching them to develop and articulate their personal goals and foster greater adherence to complex self-management regimes. Process complexity also increases because information entered in MyCARDSS needs frequent synchronization with the professional electronic patient record (EPR) system.

Conclusion

Implementation of self-management systems can increase the complexity of existing working procedures. We are currently conducting a pilot study with the system in clinical practice.

References


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