Spring 7-1-2022

DESIGN A PROTOTYPE AND TEST A WEB-BASED ONLINE REQUEST SYSTEM FOR APPOINTMENT AND SCHEDULING FOR RADIOLOGY SERVICES IN A TERTIARY CARE HOSPITAL

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MANIPAL
ACADEMY *of* HIGHER EDUCATION
(Institution of Eminence Deemed to be University)

A dissertation submitted in partial fulfilment of the award of

MSc. Health Information Management

Degree to

MANIPAL ACADEMY OF HIGHER EDUCATION

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JULY 2022

ABSTRACT

Background

It is a known fact that generally in most public hospitals, long patient waiting times for radiological investigations is a commonly observed scenario and has a negative influence on patient satisfaction. If patients can register and request appointments for various radiological investigations through an online appointment request system, the problem of long patient waiting time can be addressed to a certain level. The traditional registration procedure had excessive wait times and put clinic workers under a lot of stress. The newly developed online appointment request system for Radiology services in tertiary care hospitals will help the radiology department in scheduling appointments effectively considering the patient's needs. This can decrease patient waiting time and increase the patient satisfaction.

Objectives

To design and test a prototype of web-based online request system for appointment and scheduling system for radiology services in Kasturba hospital, Manipal that could be integrated with the existing system and to assess the user acceptance of the web-based online request application for appointment and scheduling system.

Methodology

This is a cross-sectional study carried out in two phases to develop a web-based radiology appointment request system. In development phase, the existing radiology appointment system of Kasturba Hospital was studied, a new radiology request system designed, and the prototype was developed using Html coding in Visual Studio app. After developing the prototype, in the second phase, the prototype was tested using dummy data. The selected patients who access radiology services were given a brief summary about the study, and provided with a validated questionnaire to assess the usability and acceptance of newly developed system.

Results

The prototype was successfully developed using Html coding in Visual Studio app. The results show that, 87% of patients were strongly agreed that the new web-based appointment system is usable and acceptable.

Conclusion

A prototype for a new appointment request system was developed after studying the merits and demerits of existing radiology system. The newly developed prototype included features like, the patient's instructions to follow before undergoing an examination, details of previous appointments and access to previous reports and timer indicating the upcoming appointments. Usability and acceptability of the newly developed appointment request system was found high among the users.