Effect of Human Computer Interaction in the Area of Psychiatric Healthcare System

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Abstract—Human Computer Interaction (HCI) concept focuses on improving the management of the psychiatric healthcare system. The problem of single psychiatrist universally acknowledged multiple patients in the clinic leads to the development of HCI platform. This paper aimed at developing an HCI platform that manages patients’ information and supports psychiatrists in running the psychiatric healthcare system.

Keywords—Human Computer Interaction, psychiatric healthcare system, patients, psychiatrists, platform.

I. INTRODUCTION

The computer technologies in solving complex problems based on defined theories and historical information offer a great opportunity for using existing experiences and theories in health sectors. They could have roles in supporting patients’ assessments, diagnosis and treatments in clinical settings. Human computer interaction in psychiatric health system makes electronic systems valuable to the psychiatrists in order to improve the quality of healthcare and time usage. The systems offer significant advantages to the psychiatry staff, directly from their use. However, the use of HCI platform in psychiatry clinic is not as widespread. This study intends to present and review the current state of the psychiatric treatment and methods used in psychiatric diagnostics. Human–computer interaction (HCI) involves the study, planning, design and use of the interaction between people (users) and computers (Adigun et al., 2012). It is often regarded as the intersection of computer science, behavioral sciences, design, media studies, and several other fields of study. The problem of single psychiatrist universally-acknowledged multiple patients in the clinic lead to the development of this platform. This paper develops an HCI platform that enables effective management of psychiatric patients.

II. METHODOLOGY

This paper employed waterfall model of software engineering technique as a method.

The waterfall model takes the fundamental process activities of specification, development, validation, and evolution and represents them as separate process phases such as requirements specification, software design, implementation, testing, and so on, as shown in Fig. 1. The Programming architecture used to implement the platform and the Database includes a high-level language by Microsoft used to detect and authenticate the diagnosis with prescription for data processing in the database.

Fig. 1 Waterfall model

Human computer interaction (HCI) model which was conceptualized on Input-Process-Output system, as seen in Fig. 2, where psychiatrist interface defines an activities, HCI diagnoses and prescription tables linked together as database processing, and the HCI platform is the output to measure the effectiveness of HCI in psychiatry clinic.
III. RESULTS

The HCI platform was tested: by presenting patients for examination, accessing them through diagnostic records, prescribing compatible drugs through database search, and updating them electronically. The ease of prescription and interaction was notified and quantified. The effectiveness or otherwise of HCI-concept on the psychiatric healthcare system throughput was observed.

IV. CONCLUSION

This research study has provided a Human Computer Interaction platform (HCI) platform that processes the interactions between psychiatrist and computer system. Clerking, diagnoses and drug prescription processes were merged to form a platform. The HCI platform reflects changes in the performance level of the psychiatry clinic.

REFERENCES


