

## ABSTRACT

**Introduction:** There are evidences in support of improvement of quality of healthcare by implementation of electronic health information system. On the other hand, shortcomings in designing, development and implementation strategies of health information system lowers it's potential to achieve the quality of healthcare. The main **objective of this study** was evaluation of an existing Health Information Management System at Teaching Hospital Peradeniya, Sri Lanka using the DeLone and McLean model for information system success.

**Methods:** A convergent mixed method design was used. Descriptive cross-sectional method was followed by in depth interviews of selected participants. Self-administered questionnaire was used for data collection and interviews were recorded by an electronic voice recorder. All health care workers using health information management system in Teaching Hospital Peradeniya were included for the study. Two hundred five (205) participants were recruited for the study and 81% response rate was observed. Information gathered from qualitative component was coded and described. Statistical Package for Social Sciences (SPSS) version 23.0 was used to analyze the quantitative data. Project was ethically cleared by the Ethics Review committee of Postgraduate Institute of Medicine, Colombo.

**Results:** Almost all study participants believe that HIMS increases the productivity as well as quality of patient care. More than 80% of the participants have perceived the user friendliness and the acceptability of the HIMS system. Response time, accessibility, reliability, completeness, accuracy, relevance and comprehension of content of information of HIMS were positively perceived. Participants have understood that HIMS has the potential of increasing quality of patient care services and it avoids duplication of data leading to reduction of the workload. Not updating timely information, giving priority to patients' care services at demanding times, deficiencies related to computer proficiency were identified as major barriers in system sustainability.

**Conclusions and Recommendations:** A significantly positive perception regarding HIMS was noted among system users, and potential of improvement in institutional productivity and quality of patient care due to HIMS was identified.

System quality and the acceptability of the HIMS are at a satisfactory level. Problems related to the system maintenance, inadequacy of available information in the system and problems related with skills were identified as the main challenges. Periodically upgrading of the system should be done by evidence-based interventions. Adequate attention should be paid regarding the system maintenance, computer proficiency and appropriate skills development of the users with the system infrastructure.

**Key words:** Health Information System, Evaluation, Tertiary care, Mixed Method Study.