

EXECUTIVE SUMMARY

Background: Health information systems (HIS) are highly recommended for improving healthcare services, efficiency, and administration. In Sri Lanka, the Hospital Health Information Management System (HHIMS) has been implemented in government hospitals to improve patient care, documentation, and administrative decision-making. However, limited scientific evidence available regarding the level of HHIMS utilization among healthcare workers and the factors influencing its utilization.

Objectives: To assess the level of HHIMS utilization, its associated influencing factors and perceived outcomes among healthcare workers in selected government hospitals in Trincomalee district.

Methodology: This is a hospital based descriptive cross-sectional study conducted among (n= 219) healthcare workers who were using HHIMS more than 3 months in a hospital, including Medical Officers and Dental Surgeons (n=101), Dispensers and Pharmacists (n=45), Nursing Officers (n=34), and Registration Officers (n=39). Data were collected using a pre-tested structured self-administered questionnaire (SAQ) assessing HHIMS utilization, organizational, technical, human, financial, legal, and change management factors, and selected perceived outcomes. Statistical analysis included descriptive statistics, independent t-tests, ANOVA, Pearson and Spearman correlation analyses. Key Informant Interviews (KII) were conducted with Key Informant Interview Guide (KIIG), and thematic analysis was performed to explore the associations between HHIMS utilization and selected outcomes.

Results: The level of HHIMS utilization of Nursing Officers (4.97 ± 0.619) 82% and Registration Officers (4.90 ± 0.737) 81% demonstrated the highest level, followed by Dispensers and Pharmacists (4.62 ± 0.716) 77%, while Medical Officers and Dental Surgeons showed comparatively low-level utilization (4.14 ± 0.898) 69%. These mean scores represent the extend of HHIMS utilization. Human factors were invariably associated with HHIMS utilization across all the populations. Gender was not significantly associated with HHIMS utilization. Quantitative analysis showed a positive correlation between HHIMS utilization and perceived outcomes among Registration Officers ($r = 0.646$, $p < 0.001$) and a moderate correlation among Dispensers and Pharmacists ($r = 0.479$, $p = 0.001$). Thematic analysis identified improvements in medication safety, prescription clarity, communication and coordination, queue management, and administrative decision-making.

Conclusions: The current level of utilization of HHIMS in this study is high in all four study populations. This is almost equal to the similar studies conducted in Sri Lanka in different study settings. The level of use varies according to the professional role and work responsibilities. The system helps to improve patient safety, communication among staff, and administrative work.

Recommendations: To improve the utilization of HHIMS, Infrastructure facilities should be strengthened. Role-specific training programs should be initiated. Interoperability between different health information systems should be established. In addition, measurable outcome indicators should be developed to evaluate the impact of HHIMS in government hospital.

Keywords: Hospital, Health information System, Healthcare workers, Utilization, Trincomalee district.