

Factors Affecting the Effective Usage of Medical Equipment in Sri Lankan Hospitals

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Abstract

In Sri Lanka's public hospitals, a large portion of the medical equipment is nonfunctional, unusable, or poorly maintained. It is of paramount importance to limit the nation's resource wastage amid the current economic crisis where people's access to healthcare is compromised. Developing nations like Sri Lanka face several difficulties in striking a balance between limited resources and better-quality healthcare services. Therefore, it is important to take optimal usage of available resources in the healthcare system. There are many factors that have influenced the usage of the most recent technology in Sri Lankan Hospitals. In this study, 26 factors that influence the effective usage of medical equipment in Sri Lankan Hospitals were identified using the literature survey. A factor analysis was done to identify the main 4 factors with a higher influence on the effective usage of medical equipment. This study applied a cross-sectional study design, and 384 employees including nurses, biomedical engineers, medical officers, and doctors were selected by a convenient sampling method. Data were collected using structured self-administered questionnaires and analyzed using the SPSS at the level of significance of $p < 0.05$. Three reliability tests were performed namely Pearson correlation, Cronbach's alpha, and Cohen's kappa for the questions. This study shows that there is a positive influence of key factors financial resources, policy and regulatory framework, and training and education on effective usage of medical equipment. However, the main factor contributing to the effective usage of medical equipment is maintenance. A comprehensive analysis of the factors that influence the implementation of medical equipment management systems for Sri Lankan hospitals is presented in this research.

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