Healthcare Providers' Perception Towards Utilization of Health Information Applications and Its Associated Factors in Healthcare Delivery in Health Facilities in Cape Coast Metropolis, Ghana

Authors : Richard Okyere Boadu, Godwin Adzakpah, Nathan Kumasenu Mensah, Kwame Adu Okyere Boadu, Jonathan Kissi, Christiana Dziyaba, Rosemary Bermaa Abrefa

Abstract : Information and communication technology (ICT) has significantly advanced global healthcare, with electronic health (e-Health) applications improving health records and delivery. These innovations, including electronic health records, strengthen healthcare systems. The study investigates healthcare professionals' perceptions of health information applications and their associated factors in the Cape Coast Metropolis of Ghana's health facilities. Methods: We used a descriptive cross-sectional study design to collect data from 632 healthcare professionals (HCPs), in the three purposively selected health facilities in the Cape Coast municipality of Ghana in July 2022. Shapiro-Wilk test was used to check the normality of dependent variables. Descriptive statistics were used to report means with corresponding standard deviations for continuous variables. Proportions were also reported for categorical variables. Bivariate regression analysis was conducted to determine the factors influencing the Benefits of Information Technology (BoIT); Barriers to Information Technology Use (BITU); and Motives of Information Technology Use (MoITU) in healthcare delivery. Stata SE version 15 was used for the analysis. A p-value of less than 0.05 served as the basis for considering a statistically significant accepting hypothesis. Results: Healthcare professionals (HCPs) generally perceived moderate benefits (Mean score (M)=5.67) from information technology (IT) in healthcare. However, they slightly agreed that barriers like insufficient computers (M=5.11), frequent system downtime (M=5.09), low system performance (M=5.04), and inadequate staff training (M=4.88) hindered IT utilization. Respondents slightly agreed that training (M=5.56), technical support (M=5.46), and changes in work procedures (M=5.10) motivated their IT use. Bivariate regression analysis revealed significant influences of education, working experience, healthcare profession, and IT training on attitudes towards IT utilization in healthcare delivery (BoIT, BITU, and MoITU). Additionally, the age of healthcare providers, education, and working experience significantly influenced BITU. Ultimately, age, education, working experience, healthcare profession, and IT training significantly influenced MoITU in healthcare delivery. Conclusions: Healthcare professionals acknowledge moderate benefits of IT in healthcare but encounter barriers like inadequate resources and training. Motives for IT use include staff training and support. Bivariate regression analysis shows education, working experience, profession, and IT training significantly influence attitudes toward IT adoption. Targeted interventions and policies can enhance IT utilization in the Cape Coast Metropolis, Ghana.

Keywords : health information application, utilization of information application, information technology use, healthcare

Conference Title : ICHI 2024 : International Conference on Healthcare and Informatics
Conference Location : Prague, Czechia
Conference Dates : July 04-05, 2024