RESEARCH DATA MANAGEMENT PRACTICES IN SELECTED HEALTH RESEARCH INSTITUTIONS IN UGANDA

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ABSTRACT

This study investigated research data management (RDM) practices in selected health research institutions in Uganda. The purpose of the study is to propose interventions to enhance research data management in health research institutions in Uganda. The objectives of the study were to: describe the characteristics of research data; examine the research data practices and the challenges experienced in the selected health research institutions in Uganda. Three models including DAF, DCCMF and CCMF were applied to contextualise a framework of RDM practices to implement the FAIR data principles. The rationale is to improve health research data access, sharing, and reuse to optimise the use of research resources, improve research productivity, and inform policy for sustainable development. A mixed methods approach involving a survey of 147 researchers and 18 interviews with key informants categorised as research support members was employed using a multi-case study research design in three (3) purposively selected health research institutions in Uganda. The quantitative data were analysed using statistical tools (Statistical Package for Social Scientists (SPSS) version 23.0) and the qualitative data was thematically analysed using ATLAS ti22 to extract meaningful insights. Findings revealed abundant datasets in print and electronic formats including observations, interviews, experiments, laboratory bio-tests and serialisation and surveys. RDM practices were intuitively implemented in funded projects. In addition, two approaches to RDM merged for the physical and electronic/digital data under the oversight of the Medical Records Officers/Archivists and the System Administrators/Data Managers respectively. The challenges include lack of a unifying legal framework, unskilled staff in RDM, absence of centralised storage facilities and limited funding. The collaborations, and a robust, and excellent technological infrastructure were contributing to researchers and institutional RDM practices though implementation of the FAIR data principles remains a challenge. The study therefore, recommends a nationwide policy framework for RDM with emphasis on Data Management Plans (DMPs) before ethical approvals, enhance digital data security, ensure RDM funding, staff competence training, establish RDM institutional coordinating units and a local centralised health research data repository to enhance data quality, integrity, interoperability and data reuse. This is envisaged to invigorate the scientific rigor, transparency, and impact which are crucial for addressing the national and global health challenges currently experienced.

Key word: Data, Research Data, Research Data Management, Health research, Researchers, Open Science, FAIR.