Research Data Management: Lessons learned in teaching a course on Research Integrity

Stephen Muhudhia Ombok

1Kabarak University, Kenya, Kabarak, Kenya

The Global Health Network

URL: https://tghncollections.pubpub.org/pub/ievsgw2i
License: Creative Commons Attribution 4.0 International License (CC-BY 4.0)
Data is at the heart of research and managing data responsibly is essential. Kleppner, D. et al (2009), stated that, “Data are the foundation on which scientific knowledge is built. The generation, analysis, communication, and preservation of data are in a period of profound change, and research is being similarly transformed”. Digital technology enables us to generate large amounts of data, store and process the data faster and more efficiently. However, the technology also increases the risk of research misconduct, questionable practices, and risks related to security of data.

Data management is an integral component of the research process. An RCR course at Moi Teaching and Referral Hospital, in Kenya, included Research Data Management. The RCR course was a three-day workshop. A total of 6 workshops were held over 3 years. Data management was covered in two 90-minute sessions. The participants were University academic staff, Researchers, Institutional Research Ethics Committee members, Research program administrators, and masters and doctorate graduate students. Each workshop had participants from a similar background.

The teaching of Data Management covered the following sections proposed by Boddy. J et al. (2012): Data selection, Data collection, Data handling, Data Analysis, Data ownership and sharing, Data reporting and publishing. An interactive participatory approach including discussion of a video on research data falsification was used in the teaching. Issues related to Research Misconduct; Research Integrity were identified. The underlying causes, ways of prevention and mitigation were discussed in small groups and collectively.

Lessons learned:

- Participants found data selection, data sharing and data ownership concepts more challenging to understood. They were more familiar with data collection, data storage and security, data analysis and dissemination

- An interactive participatory method is appropriate for teaching Research Data Management.

- Data management should be incorporated in Research methodology courses to improve data management plans during research protocol development.