Module 7: Quality Control and Assurance

After completing this module, you will be able to articulate the importance of quality control and assurance in social and behavioral research studies. You will be able to identify potential bias and implement strategies geared toward upholding data integrity.

Importance Of Quality

Data quality and control is everyone's responsibility.

Besides recording study outcome data, it is important to note information about how the data were collected, especially if there was something different about the collection or recording process. What is your study team's process for recording and reporting anomalies?

How does your team systematically check the quality of your data? If you don't have any methods in place, what strategies can you suggest?

Bias

Bias in research studies may influence raw data or the interpretation of data. Whether in the study design, data collection, or analysis phase, bias can lead to errors, which makes it harder to evaluate the true association between an intervention and study outcomes.

Make note of an instance of bias you have experienced. How could you address something like this in the future to avoid bias?

Strategies

Throughout the course of a study, make note of lessons learned and how you should do things differently. Take advantage of those who have gone before you!

Pick one of the Quality Control and Assurance strategies highlighted in this module and outline how you could implement it in a study you are involved with now.

- Create structured procedure manuals
- Develop a data management plan
- Develop standard rules for recording data
- Check your work
- Sign your work
- Audit data collectors
- Audit participant files
- Make decisions
- Communicate as a team

What resources are available to you if you have questions? Think about which colleagues you can approach and any institutional support that might be available.

Other Notes

Resources

Measurement Error and Reliability Testing: Application to Rehabilitation
http://www.magonlinelibrary.com/doi/abs/10.12968/ijtr.2008.15.10.31210

NIH Plans to Enhance Reproducibility
http://www.ncbi.nlm.nih.gov/pubmed/24482835

NIH Principles and Guidelines for Reporting Research
https://www.nih.gov/research-training/rigor-reproducibility/principles-guidelines-reporting-preclinical-research

Office of Research Integrity Data Management
http://ori.hhs.gov/data-management-0

Office of Research Integrity Guidelines for Responsible Data Management in Scientific Research
https://ori.hhs.gov/education/products/clinicaltools/data.pdf