Basic Qualitative and Quantitative Study Design Checklist

<table>
<tr><th colspan="2">Simplified Quantitative Study Design</th><th>Open Coding Qualitative Study Design</th></tr>
<tr><td>Steps for prospective study structure</td><td>Steps for retrospective study structure</td><td rowspan="2">1. □ Determine qualitative methodology to be used
2. □ Develop survey or focus group questions
3. □ Select participants
4. □ Determine additional investigators for data triangulation
5. □ Conduct and audiorecord focus group conversations
6. □ Transcribe data
7. □ Independent analysis of transcribed data for themes by investigators
8. □ Meet to triangulate data and determine consensus theme list
9. □ Develop framework from results</td></tr>
<tr><td>1. □ Select participants
2. □ Measure baseline variables
3. □ Randomize (if indicated)
4. □ Blind the intervention (if indicated)
5. □ Collect data
6. □ Measure outcome
7. □ Analyze data</td><td>1. □ Determine study population
2. □ Locate dataset to be analyzed
3. □ Abstract necessary data
4. □ Analyze data</td></tr>
<tr><th colspan="3">Formalize a written protocol that includes the following</th></tr>
<tr><td colspan="2">□ Research question with study hypothesis
□ Definitions of the independent and dependent variables
□ Potential confounding variables
□ Sampling techniques and plan
□ Randomization technique if applicable
□ Sample size calculations if applicable (Includes decisions as to the appropriate alpha (usually .05), beta (usually .10-.20), expected outcome event rate, and amount of difference to be detected.)
□ Inclusion and exclusion criteria (appropriate inclusion criteria are crucial to selecting the appropriate sample. Exclusion criteria can then be used to eliminate confounding variables, and prevent foreseeable issues)
□ Study measurements (measurement types, instruments, timing, validity, and reliability)
□ Plan for data management (where will data be stored? How will it be protected?)
□ Consent documents as required by the study design</td><td>□ Overall research question
□ Proposed questions for focus groups
□ Inclusion and exclusion criteria (appropriate inclusion criteria are crucial to selecting the appropriate participants in the focus groups. Exclusion criteria can then be used to tighten the study population)
□ Plan for data analysis (include transcription, triangulation, and consensus theme generation)
□ Plan for data management (where will audio and written data be stored? How will it be protected?)
□ Consent documents as required by the study design</td></tr>
<tr><th colspan="3">Mitigate Threats to Study Validity</th></tr>
<tr><td colspan="2">□ Minimize additional outside educational exposures that participants may experience
□ Maximize Kirkpatrick Level of collected outcomes data (avoid Level 1 evidence)
□ Consider avoiding repetition of identical test items between assessments (get at the same material in a different way)
□ Consider participant inclusion/exclusion criteria carefully to avoid selection bias
□ Use an appropriately matched control group.
□ Minimize loss of participants</td><td>□ Triangulate research methods
□ Triangulate data sources
□ Triangulate data analysts
□ Triangulate by interpretative theory and/or cognitive framework</td></tr>
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For additional relevant literature, please see Calhoun et al. Empowering the Inexperienced Researcher: A Summary Report and Expert Recommendations; available on the Society for Simulation in Healthcare Research Portal (www.ssih.org).