Guide to Reading Research Articles

What is the purpose of the study? Does the purpose of the study relate to an important problem?

Oualitative

- Is the purpose translated into a clearly worded research question appropriate for a qualitative study?
- Does the research question offer insight into and ask questions about social, emotional and experiential phenomenon to determine the meaning of "X" or about the attitudes, beliefs or behavior of a group or individuals?
- Is the purpose inductive from the experience?
- How was theory considered?

Ouantitative

- Is the purpose translated into a clearly worded hypothesis or (guiding) research question(s) appropriate for a quantitative study?
- Does it describe or imply a relationship among phenomenon using systematic, objective and empirical methods?
- Is the purpose deducted from an adequate review of the literature?
- Is a theoretical perspective identified?
- What problem or gap in our knowledge is being addressed by this research study? Has the problem been clearly stated in the article?
- Is the problem important? Why? To Whom?

How was the purpose investigated? Was the question studied in a credible and rigorous manner? Qualitative

Was the sampling strategy appropriate to address the research question[s]?

- Purposeful selection?
- Flexibility in sampling process?
- Ethics procedure?
- Saturation of data?
- Was the paradigm/research strategy [ethnography, phenomenology, grounded theory, PAR, other] appropriate for the research question?
- Were the data collected in a way that addresses the research question[s]?
 - Is there a clear and complete description of site participants?
 - Is there a clear description of methods used [observation, interviews, focus groups, other]
 - Are the role of the researcher and relationship with participants clearly described?
 - Are the assumptions and biases of researcher identified?
 - Is the data representative of the "whole" picture?

Was the sampling strategy appropriate to address the hypothesis or research question[s]?

Quantitative

- Informed consent obtained?
- Inclusion and exclusion criteria identified?
- Bias minimized?
- Sample size and power?
- Was the research design appropriate for addressing the hypothesis or research questions?
 - Type of design?
 - Subject assignment to groups?
 - Randomization used?
 - Control group used?
 - Independent variable[s] identified?
 - Dependent variable[s] identified?
 - Variables operationally defined?
- Were data collection procedures designed to limit bias and address the stated hypothesis or research questions?
 - Instrumentation used identified?
 - Instrumentation described in detail for replication
 - Instrument validity and reliability documented?
 - Type of data collected identified [nominal, ordinal, ratio or interval?
 - Dependent variables are appropriate outcome measures
 - Internal and external validity

- Was the data analysis sufficiently rigorous
 - Is it clear how the categories/themes derived from the data?
 - Were decision trail developed & rules reported?
 - Have steps been taken to test the credibility of the findings [triangulation, member checking]?
 - Are you confident that all data were taken into account?
 - Can you follow what the authors did?

- Was the data analysis appropriate for the study design, question and type of data?
 - Statistical tests identified?
 - Alpha level identified?
 - Sufficient rigor?
- Do the results and findings relate the data to the purpose of the study and its hypothesis or research question?
 - Do results match methods?
 - Are findings statistical significant?
 - Are tables and figures appropriate and clear?
 - Hypothesis accepted or rejected?
 - Are alternative explanations provided?
 - Are results clinically important?
 - Are limitations discussed?

What are the findings and conclusions? Do the findings and conclusions relate the data to the purpose?

Qualitative Quantitative

- Is there a clear statement of the findings?
- Is there a sense of personally experiencing the event or phenomenon being studied?
- What were the main limitations of the study?
- Were the conclusions appropriate given the study findings?
- Do the findings contribute to theory development and future practice/ research?
- Were the conclusions appropriate given the study findings?
 - Were conclusions based on results?
 - Do the findings contribute to theory development and future practice/research?
 - Are there recommendations for additional study?

Are the findings of this study applicable to my practice?

Qualitative Does this study help me to understand the context of my practice? Does this study help me understand my relationships with my patients and their families, community, or health care system? Are the findings generalizable to my practice? Are the findings generalizable to the population?