

Qualitative Research: The Importance of Conducting Research That Doesn't "Count"

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For health education and promotion specialists who want to contribute to evidence-based research and practice, using quantitative methods is important. However, when quantitative methods are used alone, or used to acquire more depth about a topic, they are not sufficient. To get the complete picture, it is important to understand and be able to conduct qualitative research—research that traditionally does not include numbers and statistical figures, or “count” data.

The purpose of this tool is to provide an overview of what health education and promotion specialists need to know—mainly, what qualitative health research is and how to conduct it. Competence in qualitative research is particularly important because much of what we do is grounded in the social and behavioral sciences—areas that benefit greatly from qualitative research insight. As we work to change not only lifestyles but also systems, built environments, and policies, the “deeper data” that we can tap into using qualitative methods become increasingly valuable.

Competent health education and promotion specialists must be knowledgeable about both quantitative and qualitative research approaches. While the debate continues about the relative value of each approach, the best option may be to understand both methods well, know the most appropriate conditions for using each method, and consider integrating them as a gold standard for rigorous health education and promotion research and practice.

The impetus for writing this tool stems from my teaching and mentoring experiences used to empower and educate health and social service professionals about the importance of using qualitative research to accomplish their project goals. This tool also presents information on how to initiate and follow through on rigorous health research that may include qualitative or mixed methods.

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► **DISTINGUISHING CHARACTERISTICS**

What Is Quantitative Research? (Creswell & Plano Clark, 2007; Miller & Fredericks, 2006; Morse, 2005; Teddlie & Tashakkori, 2009)

Conclusive
Efficient
Essential for advancing health knowledge

Use to

- Find if consensus exists on an issue
- Infer results to a larger population
- Identify evidence regarding cause–effect relationship
- Identify/describe attributes of relevant groups
- Test-specific hypotheses
- Examine specific relationships

Focus

- Exploring hypothetical relationships, testing theories

Questions answered

- “What?” and “How many?”

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Requirement

- Initial hypothesis
- Abstract

Goal

- Test hypotheses, quantify problem, assess prevalence, create statistical model, generalize results, basis for new statistical models

Process

- Deductive

Methods

- Surveys (online, phone, paper, face-to-face)
- Clickstreams (series of links clicked during web search)

Researcher

- Knows what he or she is looking for
- Objective
- Nonparticipant
- Noninfluencer
- Measures/analyzes exploratory/descriptive/explanatory factors

Data

- Classifiable countable features, numbers, statistics

Criteria for assessing rigor

- Validity
- Reliability
- Objectivity
- Generalizability

Limitations

- May “force” categorization of research participant responses into “poor fit” categories; may miss contextual detail

What Is Qualitative Research? (Banyard & Miller, 1998; Glaser & Strauss, 1967; Jeanfreau & Jack, 2010; Lincoln & Guba, 1985; Ulin, Robinson, & Tolley, 2005)

Exploratory

Design/questions emerge, improve, and evolve as study unfolds

Assumes behavior bound to social/cultural contexts

Reveals connections/relationships/subjective processes that result in health behaviors

Views social phenomena holistically

Methods interpretive/open-ended

Use to

- Get started when unsure of what to expect
- Develop initial understanding of issue/problem
- Look for range of ideas/feelings about something
- Understand different perspectives between groups/categories of people

- Uncover root motivations/factors influencing decision making/opinions
- Provide information needed to design a quantitative study
- Explain quantitative study findings

Focus

- In-depth understanding of context–phenomena relationship

Questions answered

- “Why?” “How?” and “Under what circumstances?”

Requirement

- No hypothesis needed

Goal

- Vivid, dense, full descriptions of phenomena from research participants’ perspective

Process

- Inductive

Methods

- Focus groups
- Triads/dyads
- In-depth interviews
- Uninterrupted observation
- Document review
- Ethnographic participation/observation

Researcher

- Participant, immersed in situation or natural setting, unsure what he or she looking for

Data

- Words/quotations
- Pictures
- Objects/artifacts
- Impressions
- Patterns

Criteria for assessing rigor

- Credibility
- Reliability
- Transferability
- Confirmability

Limitations

- Possible concentration on individuals’ responses
- Lose connections to/interpretations of larger context
- Collecting, analyzing data time-consuming
- Data may be overwhelming, challenging to analyze
- Information may be difficult to capture because of
 - Funding resources
 - Study setting
 - Knowledge/experience of project staff
 - Accessibility to study population
- Findings not generalizable to other populations
- Researcher bias challenging to address

► POPULAR QUALITATIVE APPROACHES

Ethnography

- Immersing self in cultures
- To learn about individuals/phenomena of interest

Phenomenology

- Describing particular phenomenon
- To reveal lived experiences of involved individuals

Grounded theory

- Studying shared group experiences
- To generate new theory

► COMMON QUALITATIVE METHODS

Group interviews/focus groups

- Six to eight people discussing a particular phenomenon
- *Key advantage:* Group dynamics encourages thought/engagement
- *Key disadvantage:* Group majority influences/discourages some participants

Individual interviews

- Meeting with individuals to discuss a particular phenomenon
- Can be open-ended, unstructured, semistructured, structured
- *Key advantage:* Good for discussing sensitive topics
- *Key disadvantage:* May be difficult to engage some individuals

Participant observation

- Observing individuals in particular setting to study specific phenomenon
- *Key advantage:* Cost efficient
- *Key disadvantage:* Limited participant–researcher interactions, lack of clarification/insight

Document review

- Systematic document analysis
- Provides insight on contextual history/information on study group
- *Key advantage:* Time efficient, no scheduled meetings with study participants
- *Key disadvantage:* Missing data challenging, leaves holes in findings/interpretation

Selecting Research Method/Instruments

Depends on the following:

- Study approach
- Research questions
- Project funding
- Supplemental resources available
- Project team’s skill/experience
- Sensitivity of phenomenon being studied

► FOUR UNIQUE CHALLENGES

Data organization

- Multiple pages/types of qualitative data can be overwhelming
- Developing a system

Data management

- Deciding whether to use electronic or hard copy system
- Involving study team
- Weighing personal preferences

Coding

- Takes time/in-depth inquiry
- Tendency to rush/take coding lightly

Reporting

- Difficult to decide what to include in qualitative report
- Difficult to find preferred qualitative report style

► POPULAR DATA ANALYSIS PROGRAMS

Atlas.ti

Ethnograph

NVivo

Low-cost alternative:

Microsoft® Excel (Stockdale, 2002; Swallow, Newton, & Lottum, 2003)

- Useful to manage, organize, facilitate data analysis
- Readily available, avoids additional expense
- Resulting spreadsheet files easily shared by/transferred between researchers/collaborators
- Many Microsoft® Word skills transferable to Excel

► TEAM ANALYSIS OF QUALITATIVE DATA

Step 1: Revisit original research questions

- Remind project team of original intent of research/research questions

Step 2: Become “one” with the data

- Individually, read transcripts/documents thoroughly
- Make no notations during this step (no writing on the transcripts/documents!)
- Instead become familiar with study participants (think of them as characters in a story)
- Repeat two to three times or as needed

Step 3: Develop individual “open codes”

- Individually, reread transcripts/documents thoroughly
- Write preliminary codes in the margins of the transcripts/documents

- Develop phrases/main ideas to look for across transcripts/documents: “open coding”
- Use language similar to questionnaire subheadings
- One to six words only for each open code
- Identify blocks of text addressing these open codes
- Circle/underline important/interesting words/phrases/jargon/passages
- Include jottings/memos from the transcript margins

Step 4: Develop “focused codes”

- As a group, meet, review, and compare open-coding results
 - Identify emerging patterns
 - Create major code headings and subheadings
 - Create consensus list of open codes
- Draft operational definitions for each open code
 - Identify specific words, phrases, ideas to be classified into specific codes
- Compile definitions of open codes (best if done by one person)
- Negotiate group consensus
- During consensus building, work on focused codes
- Verify if open codes may stand as is or need more work to become “focused codes”
- Limit focused codes to one to four words
- Finalize “focused codes”
- Adjourn group meeting

Step 5: Apply “focused codes”

- Individually, reread transcripts and apply draft focused codes to transcripts
- Repeat as needed
- Use these focused codes to semifinalize study codebook (Best if done by one person)

Step 6: “Finalize codes”

- Reconvene group to revisit focused coding consensus progress
- Attempt to obtain consensus on outstanding issues/codes
- Recode, if necessary using more inclusive/descriptive words
- Reduce blocks of text to only sentences/sections related to the codebook: data reduction
- Use spreadsheets and/or tables to organize/reduce data
- Several phases of data reduction spreadsheets/tables = more condensed presentation of data (Repeat as necessary)

Step 7: Generate themes, report findings

- As a group, reconvene to discuss themes of data
- Repeat as needed
- Generate hypotheses based on findings
- Report findings

▶ GETTING QUALITATIVE DATA PUBLISHED

Growing interest in qualitative data

Widespread acknowledgement of contributions of qualitative research

Some editors allocate space in each journal volume and/or issue for such exploratory findings

Have greater chance of publication if conducted rigorously and report reflects rigor

Increasing Likelihood of Publication: Applying and Reporting Rigor (Banyard & Miller, 1998; Miles & Huberman, 1994; Ryan & Bernard, 2000; Ulin et al., 2005)

Demonstrate research rigor specific to qualitative research

Credibility
Dependability
Confirmability
Transferability

Validity versus credibility

- *Validity*: Extent to which quantitative measure diverges from/toward concept being measured
- *Credibility*: Corresponding criterion for qualitative research; focuses on confidence in truth of findings, including accurate understanding of context
- Questions to ensure credibility include the following:
 - Do findings show logical relationships to each other?
 - Are findings consistent in terms of explanations they support?
 - Are findings grounded in/substantiated by narrative data?
 - Are narrative data sufficiently rich to support specific findings?
 - Do findings indicate a need for more data?
 - Does original study population consider reports accurate? (Miles & Huberman, 1994)

Reliability versus dependability

- *Reliability*: Extent to which quantitative study findings can be replicated
- Virtually useless in qualitative research: Rarely can qualitative researchers replicate findings even with perfect replication of qualitative design
- *Dependability*: Alternative element of rigor for qualitative researchers, assesses whether research process is consistent/carried out with careful attention to rules/methodological conventions (Ulin et al., 2005)

- Questions used to ensure dependability include the following (Ulin et al., 2005):
 - Are research questions clear, logically connected to research purpose/design?
 - Are there parallels across data sources?
 - Do multiple fieldworkers have comparable data collection protocols?

Objectivity versus confirmability

- *Objectivity*: Extent to which quantitative data are not influenced by research
- *Confirmability*: Alternative element of rigor for qualitative researchers
- Confirmability implies
- Adequate amount of distance exists between observer and observed
- Possibility of data inquiry influenced by observer minimized
- Distinction maintained between researcher's and participants' values (Ulin et al., 2005)
- Reflexivity adds to confirmability of qualitative research results. It is applied when the researcher documents his or her own research role; acknowledges personal assumptions, biases, reactions possibly influencing data collection/interpretation (Ulin et al., 2005)

Generalizability versus transferability

- *Generalizability*: Extent to which quantitative results can be applied to larger populations
- *Transferability*: Alternative element of rigor for qualitative researchers, assesses the degree to which results applied to other contexts/settings under similar conditions
- Transferability implies the following:
- Researcher gives exact, thorough description of research context
- Researcher clarifies all assumptions made
- Practitioner judges wisdom of findings—transfer to new situation with similar context

Where to Publish

Many journals are beginning to publish more qualitative research

Others have a tradition of publishing qualitative health research

Examples

- *American Journal of Health Education*
- *Health Promotion Practice*
- *Journal of Mixed Methods Research*
- *Qualitative Health Research*
- *Qualitative Inquiry*
- *Qualitative Social Work*

► WHY A “MIXED-METHODS” RESEARCH APPROACH? (Creswell & Plano Clark, 2007; Miller & Fredericks, 2006; Morse, 2005; Teddlie & Tashakkori, 2009)

Sometimes no one method is sufficient
Integration of both is valuable to answering some research questions

Combination increasingly popular, called “mixed methods” research

Quantitative data added to qualitative data
Enhances interpretation of qualitative results
Highlights important subgroup differences

Qualitative data added to quantitative data
Allows for opportunity to go “in-depth”
Gives us the “words behind the numbers”

► CONCLUSION

Poor individual/community health outcomes persist—
situation requires in-depth approach

New/expanded theories warrant qualitative research methods

Broader/deeper/richer inquiry can expand usual boundaries of understanding

Qualitative research can gather valuable additional evidence

Must be pursued with rigor

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