

Trustworthiness, sampling & ethics in Qualitative Research

Social Science and Global Health Website



Learning objectives

- At the end of the session students will be able to:
- Distinguish between the threats to validity and reliability in qualitative and participatory research
- Mention and justify at least three activities which enhance the trustworthiness of qualitative research
- Describe the main approaches to sampling in qualitative research and identify their advantages and disadvantages
- Describe major ethical issues and procedures in qualitative research

Structure of the session

- Concepts and terminologies for assessing quality in qualitative research
- Threats to trustworthiness/credibility in qualitative research
- Enhancing trustworthiness of qualitative and participatory research
- Sampling in qualitative research
- A brief look at ethics

Difference responses in a questionnaire and in-depth interview

Area	Questionnaire response	In-depth interviews
Contraceptive methods	Condoms	Condoms, withdraw, depends on the sexual interaction
Number of abortions	0	2
Work place of husband	Accra	Ho
Home help	Yes	No/sometimes



The terminologies used in qualitative research

- In the literature about validity and reliability in qualitative research a variety of terms are used. Some authors stick with the terms validity and reliability, while others (Patton, 1990 and Pretty, 1993) use the terms trustworthiness and credibility to address similar concepts. The choice of different terminology reflects the author's view that threats to validity and the way we try to ensure validity is different when using qualitative research than when using quantitative methods. To avoid confusion they suggest the use of a different terminology....

Overview

- Quantitative research is seen as having high external *validity/transferability*
- Qualitative research is seen as having high internal *validity/credibility*

The different terminologies

1. How can we be confident about the ‘truth of the findings’?

- ***Internal validity***

- **Credibility**

2. Can we apply these findings to other contexts or other groups of people?

- ***External validity***

- **Transferability**

The different terminologies

3. Would the findings be repeated if the inquiry were replicated with the same (or similar) subjects in the same or similar context?

- ***Reliability***

4. How can we be certain that the findings have been determined by the subjects and context of the inquiry, rather than the biases, motivations and perspectives of the investigators?

- ***Objectivity***

- ***Confirmability***

Adapted from Petty, J. (1993)

Quantitative research as more reliable and valid?

- There is a tendency for people to see qualitative research methodologies as soft, informal and more prone to researcher's bias than quantitative methods. But it is important to remember that quantitative tools and methods are also open to bias, subjective decisions and interpretations
- 'The ways in which measures are constructed in psychological tests, questionnaires, cost-benefit indicators, and routine management information systems are no less open to the intrusion of the evaluator's biases than making observations in the field or asking questions in interviews. *Numbers do not protect against bias; they merely disguise it.* An 'objective' statistic like the consumer price index is really made up of very subjective decisions about what consumer items to include in their index. Periodically government economists change the basis and definition of such indices.' (Patton, 1990:480)

Suicide as an area for debate and contention in methods amongst sociologists

- Durkheim's explanations held as truth until 1967
- Douglas 'The social meaning of suicide' – qualitative researcher questioned the validity of using official statistics in studying suicide
- Suicide statistics the result of negotiation within a particular social context
- Maxwell Anderson (1978) researched coroners' decisions on suicide statistics not wrong, but social facts – appropriate question for sociologists is how do they get recorded like that

Transferability (external validity) and Credibility (internal validity)

- transferability (*external validity*)- generally associated with quantitative research
- If research is externally valid it can be generalised from the sample to the whole population
- credibility (*internal validity*) – generally associated with qualitative research
- If research is internally valid it is deep and meaningful and expresses the perceptions and realities of the researched groups or individual (sample)

Transferability (external validity)

- *External validity* (transferability) refers to whether the conclusions of the study have any larger import. Are they transferable to other contexts? Do they fit?
- *External validity (transferability)* refers to the capacity to generalise findings and develop inferences from the sample to the study population. External validity answers the question of 'generalizability' (DePoy and Gitlin, 1994:98).

Credibility (internal validity)

- Miles and Huberman (1994) refer to internal validity (credibility) as the crunch question – truth value. Internal validity refers to the following:
- Do the findings of the study make sense?
- Are they credible to the people we study and to our readers?
- Do we have an authentic picture of what we are looking at?

Threats to trustworthiness/ credibility in qualitative research

- Competency of persons conducting fieldwork is insufficient:
- persons differ in skills to:
 - - establish rapport/trust
 - - use instruments effectively (good open and probing questions)
 - - personal points of view influence which questions are asked and what issues are pursued
- schedule is too intensive and causes fatigue
- persons differ in insight in technical, cultural and social context related to issues(s) studied
- language problem and use of translators hinder flow of conversation

Threats to trustworthiness/ credibility in qualitative research

- For trustworthy research we need to try to ensure that:
- The respondents feel comfortable and able to express themselves
- the interpretations/understandings of the researcher/match or tally with those of the researched.
- In qualitative inquiry the researcher is the instrument and therefore credibility/trustworthiness/validity depends to a greater extent on the skills, competence and rigor of the person doing the fieldwork than on the instrument used. As Patton (1990:476) argues, '[F]or better or worse, the trustworthiness of the data is tied directly to trustworthiness of the evaluator who collects and analyses the data'.

Threats to trustworthiness

(2)

- Inaccurate data recording
- Recording of data fails to give a complete, accurate presentation of what was said, produced or observed
- Translation is poor
- Notes are inadequate
- Recording is poor

Threats to trustworthiness

(3)

- . Hawthorne effect - participants state what they think the interviewer wants to hear, or behave in a way they think is acceptable due to:
- Insufficient rapport/ engagement
- Inappropriate 'positionality'
- Power relations between researchers and researched
- Perceptions of the researcher as having goods or services to offer
- Researchers 'lead' participants through lines of questioning
- 'Mutedness' (Ardener, 1975)

Threats to trustworthiness/ credibility in qualitative research (4)

- Limitation on the data provided
- Persons providing information are unable to give detailed information (i.e. the characteristics of the respondents giving information is insufficiently clarified; for example only inexperienced healers are providing information about what healers treat and how they treat certain problems).
- Persons providing information are withholding certain types of information (i.e. because a powerful/social person is present in the FGD)

Threats to trustworthiness/ credibility in qualitative research (5)

- **Analysis of data**

- Data is taken out of context and selectively presented in a framework which suits the researchers perspectives
- For example a researcher who wants to argue that femidoms enhance women's ability to protect themselves from STIs only chooses positive statements about femidoms to illustrate her/his argument
- Data is regarded as complete whilst it is incomplete
- 3 water sources filled in on a map are taken as the number of water sources used in the village. However, the 3 water sources actually represent 20, 3 was meant symbolically.
- Data is not analysed in a way that makes sense within the study design
- Findings from a small purposive study are analysed as percentage



Credibility in qualitative inquiry depends on three distinct but related inquiry elements

- rigorous techniques and methods for gathering high quality data that is carefully analysed, with attention to issues of validity, reliability and triangulation
- the credibility of the researcher, which is dependent on training, experience, track record, status, and presentation of self,
- philosophical belief in the phenomenological paradigm, that is, a fundamental appreciation of naturalistic inquiry, qualitative methods, inductive analysis and holistic thinking (Patton, 1990:461 – see chapter 9 for a full discussion of quality and credibility in qualitative analysis)

Example of threat 1: The competency of the persons conducting the fieldwork:

- **HIV/AIDS research addressing research, which aimed to investigate whether a population abstained more from sex after an education programme:**
- The validity or trustworthiness of the number of people who report that they abstained from sex depends on what abstaining from sex means to the people interviewed in relation to the researchers' definition. The meaning of abstaining may have different meaning than that assumed by the researcher.

Example of threat 1: The competency of the persons conducting the fieldwork:

- FOR EXAMPLE:
- Meaning to researcher:
 - Not engaged in sexual practice which involve being in touch with somebody else's genital organs
- Meaning to some respondents:
 - Not engaged in vaginal intercourse with a woman
- Other respondents:
 - Not having an ejaculation inside another person
- Others:
 - Not being in touch sexually with others or oneself
- **Result - the meaning given to abstaining differs so the results obtained do not represent what people actually do**

The trustworthiness/validity of a study on the concept of 'abstaining from sex' depends on:

- How comfortable the person being interviewed feels about talking about their sexual practices (i.e. gender, age, marital status, sexual orientation of the interviewer can all influence what the respondent feels comfortable about saying).
- How comfortable the interviewer feels about talking about sexual practices. Can the interviewer continue with the use of active listening and good open and probing questions or will feelings of shock/embarrassment alter the interview?

Exercise

- The validity/trustworthiness of the number and experience of episodes of diarrhoea presented by the data depends, amongst others, on what the name/definition of diarrhoea is used in the IDI/FGD: Names given to diarrhoea by one specific group:
 - related to germs
 - related to jealousy in the family
 - related to evil eye
 - related to sunken stomach
 - related to open breast
 - related to loose belly
- How can you ensure that you cover all these episodes of diarrhoea? Or all types of fevers that can be expressed when referring to malaria, or all types of weak lungs associated with TB.

Activities enhancing trustworthiness

Reasons for importance

CREDIBILITY

Long term and/or intense engagement

(Table adapted from Pretty, 1993)

- To build trust and rapport
- To learn the details of the context
- Researcher is exposed to multiple influences and can conduct observation from different perspectives and at different times
- Observation increases depth of understanding and the breadth of perspectives and realities encountered (reduce Hawthorne effect)

To build trust and rapport

- To learn the details of the context
 - Researcher is exposed to multiple influences
- Observation from different perspectives and at different times

Activities enhancing trustworthiness

**CREDIBILITY/
CONFIRMABILITY**
Participant checking during interviews/FGDs/PLA and through feedback of findings at the end of the study

Reasons for importance

To explore the data, interpretations and conclusions with members of the groups from whom the information was obtained. If the findings are recognised and confirmed by these groups then the credibility of the findings is enhanced



Participant checking' through drama by health workers (Keta District, Ghana, 2002)

- “The role-play came out with everything that was discussed with the researchers. I was amazed to see certain things that happen in our everyday lives” (men’s group, Blemazado, Keta).
- “It shows they really listened to us” (men’s group, Keri, Nkwanta)





Activities enhancing trustworthiness

Reasons for importance

CONFIRMABILITY

Keeping a log book/diary with information about impressions, reasons for methodological decisions

Helps the researcher to remember and justify reasons for methodological decisions and impressions

CREDIBILITY/DEPENDABILITY

Capturing the range and depth of responses from your study participants through reaching 'saturation point'

Helps to convince your audience that you have captured the range of perspectives, meanings, understandings etc. from your study group – 'Fair Dealing' (Pope & Mays, 1995) all view points represented

Activities enhancing trustworthiness

Reasons for importance

CREDIBILITY/DEPENDABILITY CONFIRMABILITY

Triangulation by:

(1) Comparing the results of a range of methods

(2) Comparing the same information from different sources

(3) Using teams of investigators with different professional and personal backgrounds

(1) Once information is confirmed by different sources or methods uncertainty is greatly reduced

(2) To cross check information and increase the range of people's input

(3) This increases the range of perspectives and biases imposed on the study

(4) Ensuring a comprehensive approach and reflexive analysis of data (Pope and Mays, 2000)

Activities enhancing trustworthiness

Reasons for importance

CREDIBILITY

Peer checking through periodical Meetings with peers not involved in the study

Helps to keep the investigator conscious of gaps, bias and errors, through exposure to searching questions and probing for meaning

CREDIBILITY

Involve different persons, both from the study group and outsiders in the analysis

Ensures that different interpretations and perspectives are incorporated in the analysis. There is no need to come to consensus – differences in perspectives and interpretations should be clearly expressed

Activities enhancing trustworthiness

Reasons for importance

TRANSFERABILITY/ CONFIRMABILITY

Clear exposition of methods of data collection and analysis

Open accountable discussion of the analysis process

Choice of methods, analysis and presentation all influence the enquiry so these should be written up as openly and accountably as possible

Reports with exact quotes, visualisations and descriptions of context

Reports the context, details of the groups involved and precise quotes on which statements are based

Activities enhancing trustworthiness

Reasons for importance

CREDIBILITY/DEPENDABILITY
Open and accountable discussion of the use of translators in the research process in the study write up

Trustworthiness in qualitative research is largely related to the relationship between the researcher and researched. The translator is another layer in this process and this needs to be discussed in a detailed and open way – see Smith et al 2008

REFLEXIVITY/CREDIBILITY
Be open about your role of researcher on the research process and outcomes

Talking about possible ways in which your gender, nationality, experience etc. has affected the research process and outcome enhances the credibility of the research

Moving on Sampling

Sampling for FGDs and interviews

- Probability sampling (quantitative) vs. non-probability sampling (qualitative)
- Non-probability sampling: “units are deliberately selected to reflect particular features of or groups within the sampled population” (Ritchie and Lewis, 2003: 78)

Sampling for FGDs and interviews

- Types of non-probability sampling
- Criterion-based or purposive sampling
- Theoretical sampling - on basis of contribution to theoretical constructs (see Strauss and Corbin, 1998 and Bryman, 2001)
- Convenience sampling

Criterion-based or purposive sampling

- Deliberate selection of respondents on the basis of features or characteristics that will enable a detailed understanding of the topic - 'symbolic representation' (Ritchie and Lewis, 2003)
- E.g. socio-demographic characteristics, roles, experiences, behaviours
- 2 main aims:
- Key constituencies covered
- Some diversity included

Types of purposive sampling

- Homogeneous - sample for similarity within population
- Heterogeneous (maximum variation) - sample to reflect variety in population
- Extreme or deviant case - unusual/atypical
- Intensity sampling – strong representation of features of interest
- ‘Typical case’ - needs background data
- Opportunistic - flexible response to new opportunities offered in field

Considerations in choosing sample size

- Heterogeneity of population?
- Which characteristics/experiences are particularly relevant to the topic?
- ‘Nesting of criteria’ needed? E.g. do we need younger and older women, sub-division into married/unmarried?
- Types of method
- Budget/resources
- Flexibility - principle of ‘saturation’

Sampling frames/ approaches

- Existing lists - e.g. hospital registers
- Key informant knowledge - e.g. community leaders, social workers, community-based organisations
- Generated by research - e.g. survey data
- Snowballing or chain sampling

Example: perceptions and experiences of pre-term labour in Malawi

- FGDs with mothers, fathers, grandmothers - maximum variation on basis of gender, age, experience/roles
- In-depth interviews with women who had experienced pre-term labour - intensity sampling on basis of direct experience
- In-depth interviews with health workers of different types, traditional midwives/birth attendants, and traditional healers - maximum variation sampling on basis of roles

Move to ethics

Ethical principles in research

- Four principles of Council for International Organisations of Medical Sciences (CIOMS):
- Respect for persons – protecting self-determination and the vulnerable
- Beneficence: Maximising benefits and minimising harms (balancing risks against benefits)
- ‘Do no harm’ – prevent physical and psychological harm to individual study participants
- Justice – ensuring equal treatment and equitable benefit between participants in a study and researchers
- (Ringheim, 1995)

Good practice: basic principles of ethics in social science

- Justice and beneficence
- Avoiding raising false expectations/ obligation to ensure benefit to study population?
- Respecting persons
- Informed consent – including specific consideration of minors and cultural constructions of consent

Good practice: basic principles of ethics in social science

- Avoiding harm:
- Context and courtesy – the when and where of research
- Considering appropriateness of questions within cultural context and specific groups (e.g. adolescents)
- Non-judgemental phrasing of questions and responses by interviewers
- Possible need for counselling or support?
- Confidentiality

Assuring confidentiality

- Training all members of the research team in importance of confidentiality – e.g. keeping all individual information within the research team
- Assigning numbers rather than names to individual data such as transcripts
- Locking/ protecting access to files except amongst researchers
- Interviews/ discussions conducted in private
- Agreeing on confidentiality of proceedings in group discussions
- Reporting findings without names and changing or deleting any details that would enable individuals or groups to be identified

Informed consent

- Local language and understandable (in the case of illiteracy it can be read).
- Contents:
 - The nature of the study and why the participant has been asked to participate
 - The expected course of events, i.e. interview, how long, sort of topics covered
 - Potential risks and benefits to the participant and others
 - Confirmation that the information will be kept confidential (if not so who will have access)
 - Participation is voluntary and the participant may refuse to answer questions or withdraw from the study at any time with no negative consequences

Informed consent

- Normally statements contain the following information:
- ‘I have read the information above, or it has been read to me. I have had the opportunity to ask questions about the study and they have been answered to my satisfaction. I consent voluntarily to participate in the study and I understand I have the right to withdraw from the study at any time and refuse to answer nay questions without any negative repercussions’
- Signature, or verbal agreement?
- Incentives/inducements – what’s appropriate? Consensus = transport costs, soft drink, and a snack are okay

Ethical approval

- When planning any research study sufficient time needs to be given for the ethical approval process. This can take up a few months to have a proposal reviewed and not all ethical committees meet every month
- For example in Malawi Health Research undertaken through the College of Medicine should have ethical approval sought through COMREC