Qualitative Research

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Overview of the presentation

- What is qualitative research?

- Uses of qualitative methods in health research

- Compare qualitative with quantitative approach

- Major qualitative data collection methods: interviews, focus groups, observations

- Overview of qualitative data analysis

Introduction

- What is research?

Systematic approach

General classification of types of research methods
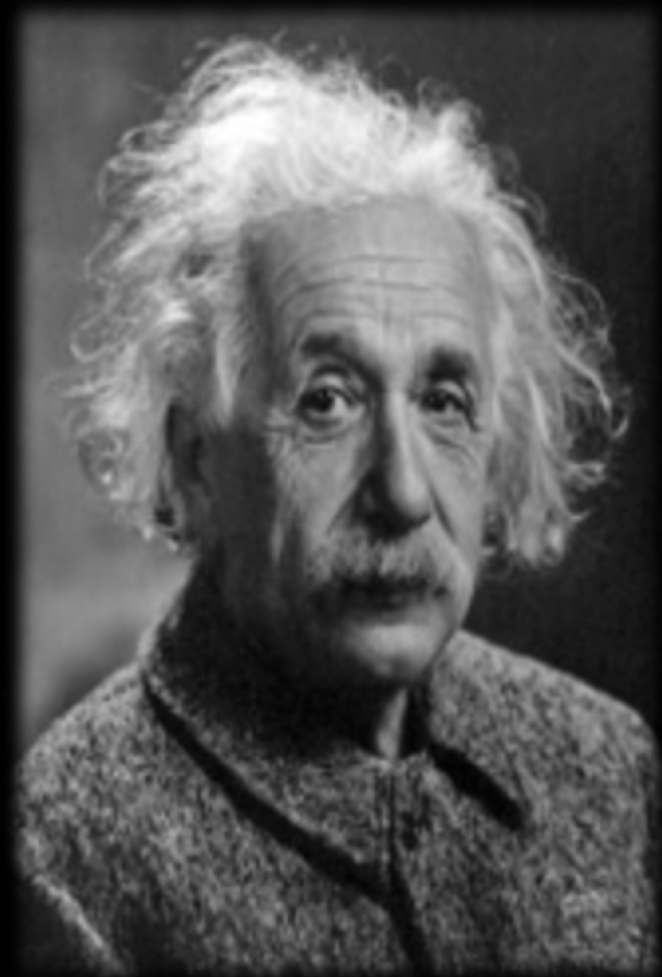
Quantitative research   Qualitative research

Newton's apple

Everything that can be counted does not necessarily count; everything that counts cannot necessarily be counted.

(Albert Einstein)

Example

- 81% of deaths in the hospitals are due to RTAs

- 20% of hospital beds are occupied by RTA victims

- Excessive speeding is the most common reported cause of RTAs

- The young and economically productive age groups are the most affected

- The reported gross loss due to accidents is between 2.2 - 9 %

The magnitude of the problem

SAHER system to reduce RTAs in KSA

- SAHER

- Recognize

How can I reduce RTAs ?

- Why do people speed?

- Why do people cross red lights?

Consider these questions

- <u>Why</u> do people smoke ?

- <u>Why</u> do people eat what they eat ?

- <u>Why</u> don't most people in our part of the world exercise ?

- <u>How</u> do people contract infection ?

- <u>How</u> is such information useful ?

Qualitative Research

What is qualitative research?

- A strategy for systematic collection, organization and interpretation of textual information.

- Answers how and why a certain phenomenon occurs.

- Uses inductive approach to generate novel insights into phenomena

Why qualitative?

- Focuses on lived experience

- Preserves chronological flow

- Makes sense of incongruent data

- Rich and holistic

- Compliments quantitative data

When to use qualitative research?

- Exploring a health problem or issue about which little is known

- Produce conceptual models

- Investigating the feasibility, acceptability and appropriateness of potential programmes.

- Identifying problems in on-going interventions and suggesting appropriate solutions to those problems

- Can help in identifying cultural and social factors that affect health care positively or negatively.

- Complementing quantitatively collected data by helping to interpret its results.

- Designing more valid survey instruments.

Qualitative approaches

- Phenomenology

- Grounded theory

- Ethnography

- Case study

Comparing Approaches (I)

Qualitative

- Understanding
- Interview/observation
- Discovering frameworks
- Text (words), images, objects
- Theory generating
- Quality of informant more important than sample size
- Subjective
- Embedded knowledge
- Models of analysis: fidelity to text or words of interviewees

Quantitative

- Prediction
- Survey/questionnaires
- Existing frameworks
- Numerical
- Theory testing (experimental)
- Sample size core issue in reliability of data
- Objective
- Public
- Model of analysis:parametric, non-parametric

Comparing Approaches (II)

Qualitative

- **Methods**
  - Focus Groups
  - Interviews
  - Surveys
  - Self-reports
  - Observations
  - Document analysis
  - **Sampling**: Purposive
- **Quality Assurance:**
  - **Trustworthiness**: Credibility, Confirmability, Dependability, Transferability

Quantitative

- **Methods**
  - Observational
  - Experimental
  - Mixed
  - **Sampling**: Random (simple, stratified, cluster, etc) or purposive

- **Quality Assurance**:
  - **Reliability:** Internal and External
  - **Validity**: Construct, Content, Face

Characteristics of Qualitative Research

- Purpose is understanding meanings people have constructed

- "Naturalistic"

- Uses subjective data

- Interpret results in contexts

- The researcher is the instrument

- The researcher's signature is apparent

- Deals with local conditions not controlled

Exercise

Area of investigation	Qualitative investigation	Quantitative investigation
GP Consultation		
Lung Cancer		

Examples of Qualitative Research Methods

- Focus group discussions

- Key informant interviews

- Ethnography

- Phenomenology

Qualitative Methodologies (Example)

- Ethnography
  - An ethnography is a description and interpretation of a cultural or social group or system. The research examines the group's observable and learned patterns of behaviour, customs, and ways of life

Qualitative Methodologies (Example)

- Phenomenology:

  - Phenomenology is the study of human experience and of the ways things present themselves to us in and through such experience (Sokolowski 2000, 2).

- Phenomenology is the study of structures of consciousness as experienced from the first-person point of view. (Smith 2008)

- The main difference between ethnography and phenomenology is that ethnography focuses on the collective experiences of a community whereas phenomenology focuses on the individual experiences of individuals.

Qualitative Research Techniques

- Participant observation (field notes)

- Interviews / Focus groups

- Video / Text and Image analysis (documents, media data)

Qualitative Research

Qualitative Research Techniques

- Interviews
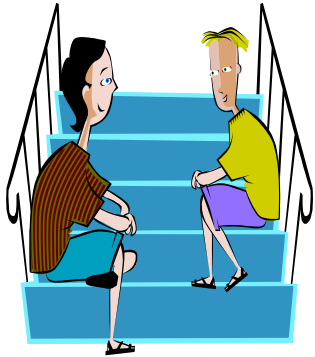
- Observation

⌗ Content analysis

Involves Skills of

- Observing

- Conversing

- Participating

- Interpreting

How might you collect data for a qualitative study

- Interviews

- Focus groups

- Observations

1- Qualitative interviews

- Structured

- Semi-structured

- Unstructured
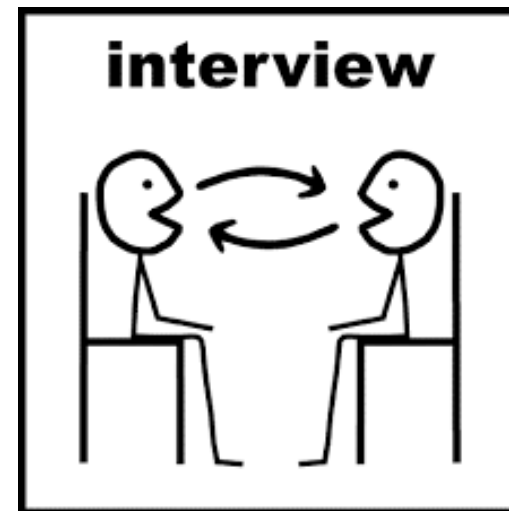
2- Focus groups

Why do a focus group?

- Little is known about a topic

- At the early stages of a research project

- Mixed methods

3- Observation

- Researcher observes participants in natural environments

Sampling in Qualitative research

- Types of sampling e.g. purposive, snowballing…

- Collect data until data saturation

IMG 11: 47y/o Syrian female, 6 y experience in SA.

N: OK Dr. IMG11

IMG11:   OK.

N: Dr. Sonia is a 33 years old Indian physician who works in a PHCC in Riyadh for 3 years as a GP. In your opinion, what are the challenges that she might face living in Riyadh?

IMG11:   Ummm…for her the first challenge is language. People in Riyadh speak Arabic only. It is rare to find someone who speaks English. This could be a challenge in the first years however it can be solved quickly after couple of years. Customs and habits are, for sure, are different for a new comer.

N: What about customs and habits?

IMG11:   You know, Saudi Arabia is rich in tradition. Saudis usually link their traditions with their religion. A Muslim new comer may find some conflicts. They may be judged by others just because they do not follow a Saudi tradition that is though by Saudis to be part of Islam

N: Can you give me an example for that?

IMG11:   For example..ummm…most women here cover their faces. I do not even cover my head in Syria but here I have to cover even my face to avoid being judged by my patients if they see me in a supermarket or anywhere else. And yes, women do not drive and they say it is (Haram) [religiously forbidden], since when driving a car is Haram!? Providing a personal driver is costly and my husband is busy most of the times, he is a cardiac surgeon in X hospital, he is very busy. Sometimes I feel like if I am imprisoned and cannot do anything, you know, taxis are not safe.

N: I want to talk more about patients judging you if you do not try to look like them. How does that affect your work?

IMG11:   It may affect trust between my patients and I. People her are so much connected to their religion, which is good of course, so I know by looking d

Data Analysis Steps

- Organize and prepare the data for analysis
- Read all data, get a sense of the whole
- Begin detailed analysis with coding process
- Generate a description of the setting /people as well as categories or themes for analysis
- Represent themes (writing, visual, etc.)
- Interpret and make meaning out of data
- *iterative, non-linear process

Qualitative Research

Analyzing data
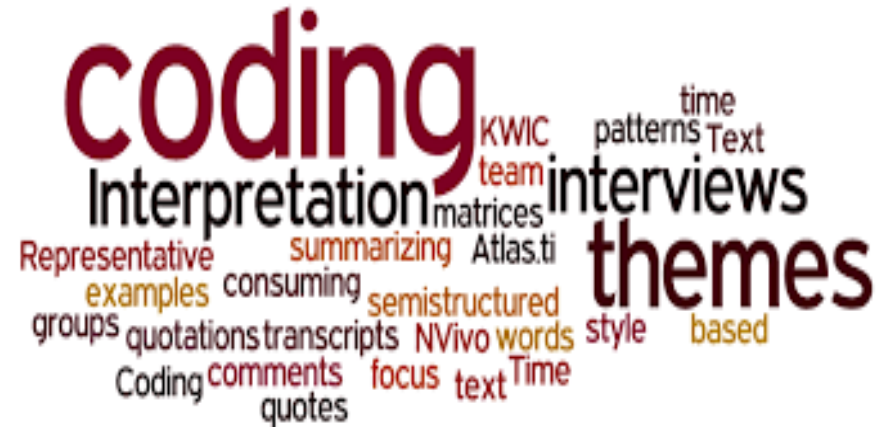
- Cut and past

- Software programmes, e.g. NVivo, ATLAS.ti, NUD*IST

☑ Navigation View   Dock All   ☐ Docked   Zoom   List View   Coding Stripes   Highlight   Annotations   See Also Links   Relationships   Node   Node Matrix   Framework Matrix   Classification   Report   Previous   Next   Color Scheme

☑ Find   Undock All   ☐ Bookmarks   Layout   Detail View

Quick Coding   Close All   Close

Workspace   Window   List View   Coding   Links   Detail View   Reference   Visualization

Look for: Search In ▾   Open Sourcing   Find Now   Clear   Advanced Find   X

Nodes

- Nodes
  - Auto Coded Sample Templ
  - Autocoding by Paragraph S
  - Costs
  - Instructional Techniques
  - Management
  - ModifiedEDelphiSurvey
  - Open Sourcing
  - Research, Big Data
  - Second Autocoding Run
  - Technologies
- Relationships
- Node Matrices

Open Sourcing

Name	Sources	References	Created On	Created By	Modified On	Modified By
CommunityCollege	1	1	4/26/2013 11:17 AM	SHJ	10/24/2014 5:01 PM	NV
CosttoLearners	6	14	4/26/2013 11:07 AM	SHJ	10/24/2014 5:01 PM	NV
EmploymentOpportunitiesforLearners	6	12	4/25/2013 1:41 PM	SHJ	9/28/2014 4:04 PM	NV
GlobalAccess	43	161	4/25/2013 11:13 AM	SHJ	10/24/2014 5:01 PM	NV

Word Frequency Query Result   10.1007_978-3-642-03278-3_   DelphiMethodology ✕

Delphi protocol can be applied when a community of experts is required to deliver a consensual answer.

Reference 2 - 0.24% Coverage

an agreement among the experts about what the answer should be. This consensus reaching problem has been already considered in the lit- erature, though its automatisation remains as a challenge.

Reference 3 - 1.22% Coverage

The Delphi Process in general is not rigid and its structure depends on the
situation. Looking for guidelines, this paper follows the steps and guidelines stated in [5]. The Delphi approach has been applied for several areas for di⊐erent uses.For
instance, Roth [31] used the Delphi approach for acquiring knowledge from mul- tiple experts. Recently; Bryant [4] applied the Delphi method for estimating the risk factors of the terrestrial chemical spill; Hayes [13] did a Delphi study of the future of marketing of the higher education; Mir'o[21] applied the delphi method to reach consensus among professionals with interest in chronic pain among children and adolescents. The automatisation of Delphi is considered first as a set of computers and software assisting human experts in the process. In this line, literature mentions DEMOS[19], which is an on-line discussion system based on Delphi, and Turo⊐ [34], who presents a Delphi method with computer assistance.

<Internals\\DelphiResearch\\10.1007_978-3-642-16373-9_20> - § 1 reference coded [0.18% Coverage]

Reference 1 - 0.18% Coverage

Schema matching, the identification of data elements that have the same meaning, is a critical step to ensure the success of database integration.

<Internals\\DelphiResearch\\10.1007_978-3-7908-2352-3_14> - § 3 references coded [1.21% Coverage]

Reference 1 - 0.50% Coverage

The Delphi method is commonly used for future studies, and it utilizes experts, who are asked to evaluate different statements or hypotheses about the future.

Sources
Nodes
Classifications
Collections
Queries
Reports
Models
Folders

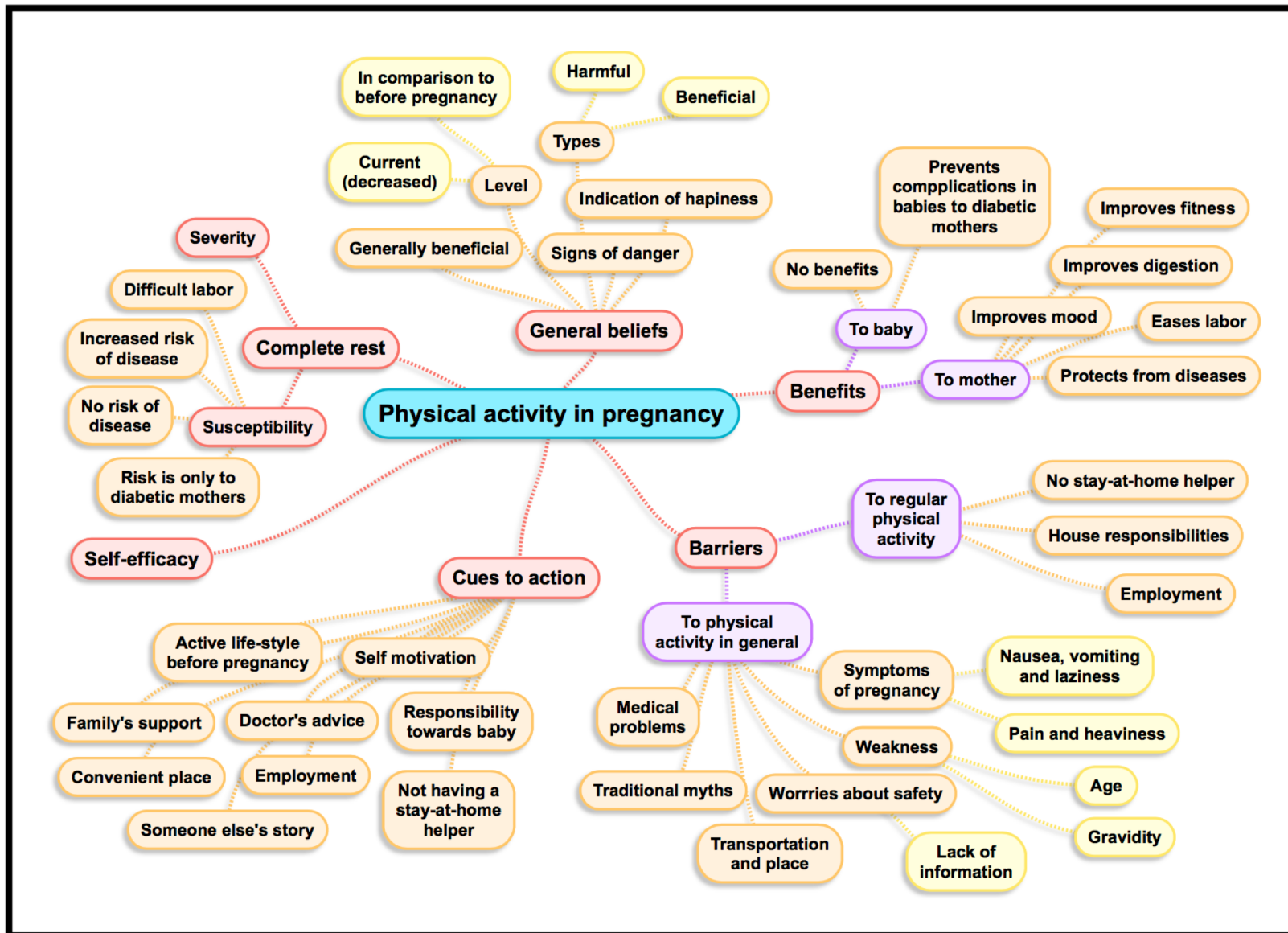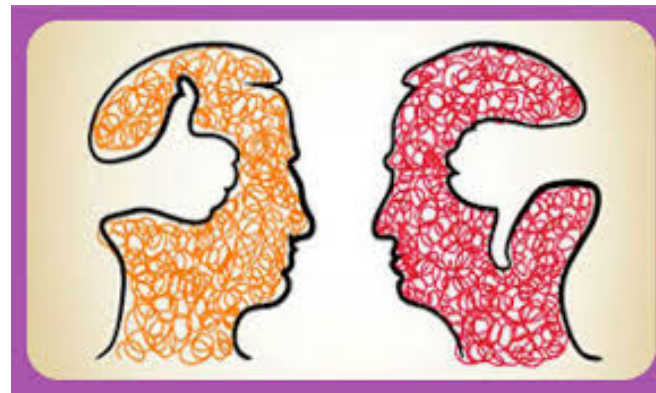In   Nodes   ...   Code At   ...   X

SHJ   10 Items

Figure 3.1: Thematic network.

How can I reduce subjectivity in qualitative research

- Reflectivity

- Probing

- Triangulation

- Often, the person most changed by the research is the researcher

Concluding remarks

- Qualitative research identify what really matters for patients and care providers

- Qualitative methods can provide unique contributions to health services and clinical research

- There are widely accepted procedures for study design, sampling, data collection, and data analysis in qualitative research

Useful further readings

- Bryman, A. (2016). *Social research methods*. Oxford university press.

- Creswell, JW. (2003). *Research Design: Qualitative and Quantitative and Mixed- Method Approaches*, Thousand Oaks, CA: Sage Publications.

- Mays, N., & Pope, C. (2000). Assessing quality in qualitative research. *Bmj, 320*(7226), 50-52.

- Pope, C., & Mays, N. (1995). Qualitative research: reaching the parts other methods cannot reach: an introduction to qualitative methods in health and health services research. *Bmj, 311*(6996), 42-45.

Thank you