INTRODUCTION

Research is any activity undertaken to increase our knowledge; it is the systematic investigation of a problem, issue or question. This may mean reviewing all the literature on a given topic and drawing new conclusions about the topic, manipulating certain variables to see what happens to other variables, or merely searching in an organized manner for relationships between characteristics or entities.

Two means of discovering and using knowledge are inductive and deductive reasoning:

Induction begins with the observation and measurement of phenomena and then develops ideas and general theories about the universe of interest. In other wards, in using inductive reasoning, one accepts or believes a finding about an individual and then applies that belief to all similar individuals, assuming that it will be true for all.

Deduction a theoretical or mental process of reasoning by which the investigator starts off with an idea, and develops a theory and hypothesis from it, then phenomena are assessed in order to determine whether the theory is consistent with the observations. In other wards, in using deductive reasoning, one accepts or believes a general principle, then applies that principle to an individual case.

Research has many problems, to mention some:

- Some clients may not want to participate,
- Numerous ethical issues need to be considered in doing research on human beings,
- Takes time and other resources, etc.

The basic types of research can be categorized in several ways. For example, research may be pure or applied, experimental or descriptive, clinical or laboratory.

A. Pure Abstract and general, concerned with generating new theory, and gaining new knowledge for the knowledge's sake.	**Applied** Designed to answer a practical question, to help people do their jobs better.
B. Experimental Manipulating one variable to see its effect on another variables, while controlling for as many other variables as possible and randomly assigning subjects to groups.	**Descriptive** Describing a group, a situation, or an individual to gain knowledge, which may be applied, to further groups or situations, as in case studies or trend analysis.
C. Clinical Performed in the "real world" where control over variables is quite difficult.	**Laboratory** Performed in "unreal" or laboratory surroundings that are tightly controlled.

It is useful to remember that research is a circular process. The researcher starts with a question in mind, goes through the investigative stages, and ends up with an answer to the question. More often than not, further questions arise during the analysis and interpretation of the data, leading to yet more research ideas, which is true in quantitative research. But it may happen the other way round in the case of qualitative research, "You are not putting together a puzzle, whose picture you already know. You are constructing a picture which takes shape as you collect and examine the parts".

Whatever the entry point, the steps required to complete a research project follow a logical sequence:

1. Identify a problem that needs to be solved or a question that needs to be answered.
2. Review the existing writing on that issue.
3. Formulate a question or hypothesis about the problem based on the reading.
4. Design a procedure that will address the question or hypothesis.

5. Carry out the procedure.
6. Collect and interpret the findings.
7. Publish the answer to the question so that others may benefit from the identified Knowledge.

Having followed the above research steps, to conduct a research one has to choose the method to be used. That means what design you will use to answer the questions you have posed. You must decide whether to use a qualitative or a quantitative research design. In order to make decision, you must understand the underpinnings of each type of research.

Qualitative research approach nowadays is growing and applied in many basic and applied researches. Many texts are produced on how to go about it. This module is prepared after referring those selected books listed at the reference section, by looking some journals, and by incorporating the short notes that were given by the co-producer. It needs further development and modifications by inserting examples on qualitative researches performed in Ethiopia, in particular at Gondar College of Medical Sciences.

LEARNING OBJECTIVES

At the end of this session the student /user is able to:

- Understand the scope, principles, and characteristics of qualitative research.
- List and understand the different methods for the application of qualitative research.
- Know the various steps to be followed and when to use qualitative research approaches.
- Develop skills in the practicalities of doing qualitative research.
- Understand and explore the approaches to the collection and analysis of qualitative data: Framework analysis and Grounded Theory.
- Assess/evaluate the quality of qualitative research.

- Be able to differentiate between qualitative and quantitative research approaches.
- Examine when to use combination of qualitative and quantitative research approaches.

PRE-TEST

1. What is “qualitative research”?
2. List the methods for the application of qualitative research?
3. List down the main differences between qualitative and quantitative research approaches?
4. Can we use both qualitative and quantitative research approaches and methods in a research?

   Yes_____ No_____
5. Which one of them aims to generate hypothesis and to describe rather than testing hypothesis and generalizing?

   Quantitative _____ Qualitative _____
6. Which favours counting rather than natural observation?

   Quantitative _____ Qualitative _____

INTRODUCTION TO QUALITATIVE RESEARCH

1. SCOPE AND DEFINITIONS

Qualitative research is a method of naturalistic enquiry, which is usually less obtrusive than quantitative investigations and does not manipulate a research setting. It aims to study people in their natural social settings and to collect naturally occurring data. The focus is on the meanings the participants in the study setting attach to their social world. Its strength is the ability to study people in the '*field'*, i.e. in their natural settings.

Qualitative research describes in words rather than numbers the qualities of social phenomena through observation (direct and unobtrusive or participative and reactive), unstructured interviews (or 'exploratory', 'in-depth', 'free-style' interviews, usually tape recorded and then transcribed before analysis), diary methods, life histories (biography), group interviews and focus group techniques, analysis of historical and contemporary records, documents and cultural products (e.g. media, literature).

Demonstrable advantage of qualitative research over quantitative methods have been shown in situations in which there is little pre-existing knowledge, the issues are sensitive or complex and the maximum opportunity for exploration and inductive hypothesis generation is desired.

Qualitative research methods allow the researcher to work with the primary and secondary data (transcribed from interviews, observational notes, and documents), to explore the nature of the stories people tell or the way they behave to look at the different perspectives, understandings and interpretations that social beings bring to each social situation in which they participate. Thus the methods used by the researcher to collect and analyse qualitative data need to allow those data to be collected and worked with in their 'natural' form. The researcher's role is to listen, observe, theory test (in the case of interviews), and then interpret or make sense of what she/he sees and hears. As the extent and nature of the data cannot be known before they are collected, the process of collecting and analysing qualitative data often intermingle. The collection of some data from perhaps a small number of in-depth interviews may be followed by analysis, which then helps the researcher to identify further data that are needed to test out or develop his/her preliminary interpretations.

For example, if some research was being conducted into patients' experiences of waiting to see the doctors, initial interviews might suggest that people waiting by themselves have a different experience from those waiting with children.
The researcher is in close touch with the real situations of the data, close to the ground.

"Qualitative research is *multi-method* in focus, involving an *interpretive, naturalistic approach* to its subject matter" (Denzin and Lincoln, 1998:3)

The definition of qualitative research methods is that they are methods for collection, analysis, and interpretation of data on phenomena that are not easily reduced to numbers or that might be destroyed by an attempt to do so, e.g. 'love' is a phenomenon that is fundamentally qualitative. Health is another phenomenon, which could be said to be fundamentally qualitative in nature.

Characteristics of Qualitative Research

The eight characteristics of qualitative research, which are important to consider:

A. ***An exploratory and descriptive focus***

Research studies are qualitative and designed to discover what can be learned about some phenomenon of interest, particularly social phenomena where people are participant (or as traditionally referred to – subjects). Qualitative researchers develop a general 'focus of inquiry' that helps to guide the discovery of what is to be known about some social phenomenon. Researchers are interested in investigating and responding to exploratory and descriptive questions such as 'what is young children's conception of "mind"?' 'In what ways do people in this rural town build informal social networks?' 'How do people who work in this place think the physical environment could be improved?' The outcome of any of these studied is not the generalization of results, but a deep understanding of experience from the perspectives of the participants selected for study.

B. ***Emergent design***

Important leads are identified in the early phases of data analysis and pursued by asking new questions, observing new situations or previous situations with a slightly different lens, or examining previously unimportant documents. This broadening or narrowing of what is important to study (i.e., the focus of inquiry) and the

consequent sampling of new people and settings is anticipated and planned for, as best one can, in qualitative research designs.

C. ***A purposive sample***

In qualitative research, participants (or settings, such as schools or organizations) are carefully selected for inclusion, based on the possibility that each participant (or setting) will expand the variability of the sample. Purposive sampling increases the likelihood that variability common in any social phenomenon will be represented in the data, in contrast to random sampling which tries to achieve variation through the use of random selection and large sample size.

D. ***Data collection in the natural setting***

Qualitative researchers are interested in understanding people's experience in context. The natural setting is the place where the researcher is most likely to discover, or uncover, what is to be known about the phenomenon of interest. The characteristic of qualitative research again reflects the philosophic underpinnings of the alternate paradigm. Personal meaning is tied to context. To explore how parents go about informally teaching their children, one goes to the places where this might happen, such as family homes, shopping centres, social events, etc. Extended amounts of time with people in the places they inhabit is a critical feature of indwelling, fostering the development of both explicit and tacit knowledge.

E. ***Emphasis on 'human-as-instrument'***

The qualitative researcher has the added responsibility of being both the collector of relevant data – data whose relevance changes as the study proceeds – and the culler of meaning from the data, which most often is in the form of people's words and actions. It is possible to include other formal instruments, such as questionnaires or tests, in a qualitative study.

F. ***Qualitative methods of data collection***

The data of qualitative inquiry is most often people's words and actions, and thus requires methods that allow the researcher to capture language and behaviour. The most useful ways of gathering these forms of data are participant observation, in-depth interviews, group interviews, and the collection of relevant documents. The researcher in the form of field notes collects observation and interview data and audiotaped interviews, which are later transcribed for use in data analysis. There is also some qualitative research being done with photographs and videotaped observations as primary sources of data.

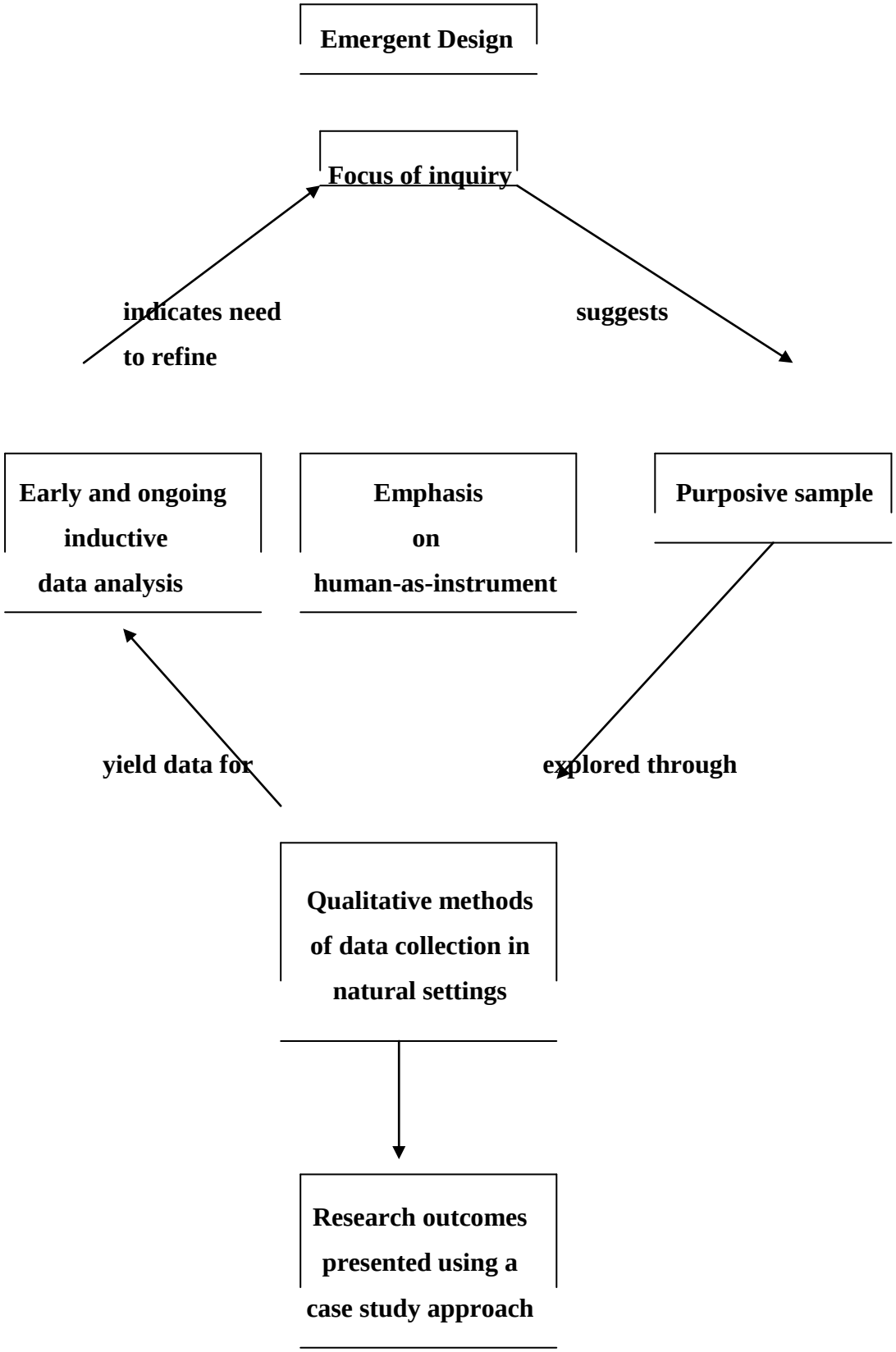
G. ***Early and ongoing inductive data analysis***

The characteristics of qualitative research described so far point to two important characteristics of qualitative data analysis: a/. It is an going research activity, in contrast to an end stage, when the design is emergent; b/. It is primarily inductive. Analysis begins when one has accumulated a subset of the data, providing an opportunity for the salient aspects of the phenomenon under study to begin to emerge. Pursuing the relevant persons, settings, follows these initial leads or documents that will help illuminate the phenomenon of interest. In other words, there is a broadening or narrowing of the focus of inquiry as the data suggest it. *What is important is not predetermined by the researcher*. Within the broad boundaries of the researcher's focus of inquiry, the data studied for what is meaningful to the participants in the study or 'participant perspectives'. The outcomes of the research study evolve from the systematic building of homogeneous categories of meaning inductively derived from the data.

H. ***A case study approach to reporting research outcomes***

The results of a qualitative research study are most effectively presented with a rich narrative, sometimes referred to as a case study. The number of cases varies with each study, from one case to several. With book length reports, the researcher has an opportunity to provide many excerpts from the actual data that let the participants speak for themselves – in word or action – thereby giving the reader sufficient information for understanding the research outcomes. In article length reports, the researcher by necessity is briefer, using a modified case-study mode of reporting. A qualitative research report characterised by rich description should provide the reader with enough information to determine whether the findings of the study possibly apply to other people or settings.

Figure Showing Characteristics of Qualitative Research



(Adapted from 'Beginning Qualitative Research, A philosophic and Practical Guide'. Pamela M. and Richard M.).

2. PRICNCIPLES

The nature of qualitative Research

Qualitative research is the main method used by anthropologists in participant observations and/or qualitative interviewing of members of a culture (*ethnography*), and by social scientists whose approach is rooted in a phenomenological perspective.

- Originates in social anthropology.
- Concerned with developing explanations of the social world.
- Predicted upon the socially constructed nature of reality – ontology
- In opposition to positivist thinking which dominates quantitative research.
- Develops out of a naturalistic paradigm.

The two main paradigms in the social sciences

- **Positivism –**provides the theoretical basis for quantitative approaches
- **Naturalism –** provides the theoretical basis for qualitative approaches.

The main features of Positivism:

The method of investigation used depends on the investigator's assumptions about society. A considerable body of social science is directed by research methods drawn from the natural science. This approach is known as *positivism.*

Positivism aims to discover laws using quantitative methods and emphasises *positive facts.* Thus, positivism assumes that there is a single objective reality, which can be ascertained by the senses, and tested subject to the laws of the scientific method.

Positivism in social science assumes that human behaviour is a reaction to external stimuli and that is possible to observe and measure social phenomena, using the principles of the natural scientists, and the hypothetico-deductive method, and thereby to establish a reliable and valid body of knowledge about its operations based on *empiricism* (actual evidence gathered through use of senses, i.e. observed).

Deductive reasoning means that the investigator starts with general ideas and develops specific theories and hypothesis from them, which are then tested by collecting and analysing data.

Positivists are not concerned with measuring the meaning of situations to people because they cannot be measured in a scientific and objective manner.

- Belief in *objective nature of reality* that can be studied and understood.
- *Experimental design* is the model for social research.
- Emphasis on the *quantification of observations* using neutral/standardised language.
- Discounts subjective understandings and intentions of humans.
- *Theory testing.*

Main Features of Naturalism

- Social world should be studied in its *natural state.*
- World cannot be understood as a set of causal relationships because human actions are based on *meanings.*
- Getting close/ focus on the *micro* – about sharing life of those being studied to share people's interpretations of their world.
- *Theory generating/* emphasis on *induction.* Researcher does not describe the phenomena using pre-determined categories.
  Inductive reasoning begins with observations and builds up general statements and hypotheses from them for testing.
- A *holistic approach* – open to gathering any data that will shed light on the problem.

The natural scientist systematically observes and measures the behaviour of matter and the results of these investigations are regarded as 'facts'; these are believed to be undistorted by the value judgement of the scientist.

Features of Qualitative Research

In qualitative research methods the emphasis on an accurate or true reflection of social reality (telling it like it really) rather than on precision (saying how much it is like this or that). Thus to this effect numbers are not of the essences in determining the worthiness or otherwise of a piece of research. This is often taken to mean that numbers are of no consequences whatsoever in qualitative research, but this would overstate the case.

Thus in qualitative research the sample size cannot often be determined in advance, in the way that is often can be in quantitative research.

In many forms of qualitative research what limits the numbers required is the arrival at a point at which one seems to have "bottomed the problem", or where additional data collection seems to reveal no new information or insight. This moment is known as "saturation" and this is a matter of judgement. Sometimes the limitations on the sampling frame are one of feasibility or funding.

Another feature of qualitative research is the nature of the end product. Data in quantitative research are clearly *numeric*, and can usually be condensed by the use of mathematical tools, most notable those of statistics. The conclusion can usually also be stated in the concise form of theory or hypothesis with, ideally, some measurements of the precision of that conclusion, such as confidence interval or P value.

In qualitative research the data usually take the form of verbatim quotations from research participants, often referred to as respondents or informants. Often these quotations will be organized into a framework or template, which illustrates how they support each other in reaching the conclusions. The conclusions will sometimes be expressed as a theory or hypothesis, but more often as a social construction or model of how the world is with regard to the topic of the study. This clearly presents difficulties in communicating the research results within the traditional IMRAD (Introduction, Methods, Results, and Discussion) framework imposed by the most scientific journals.

The end product of qualitative research is also more likely to be a better or clearer description of how things are, rather than predictive of how things might be. That is to say that qualitative research is more *naturalistic* and *descriptive* than experimental. Qualitative research methods can be used to generate descriptions and hypothesis, and quantitative research methods can be used to test hypothesis. Thus anything concluded from a piece of qualitative research is likely to be probabilistic rather than deterministic, and is more contexts specific then generalizable.

- **Naturalism**

  Understanding health behaviour in its everyday context.

- **Interpretation**

- Investigating how patients and practitioners make sense of certain facts.
- Subjective meanings are crucial to an understanding of how treatment regimes integrate with everyday life.
- People don't define themselves as having asthma thought acute/ 'bad chest'.
- Strategies to avoid the onset of attacks – extreme? But not as bad as having to take daily medicine=> Stigma.

- **Process**

- Any interventions or changes need to be accommodated in person's biography.
- May have to manage drugs long term – asthma identity.
- People with epilepsy come off drugs to test themselves.

- **Interaction and relativism**

- Focus on the relationships between people and the fact there are multiple realities.
- For example, doctor and the patient may have different views of reality, e.g. research on difficult patients crossed off GP lists.
- Also research on medication for asthma patients shows it can decrease morbidity and mortality.
- Patients have negative views about medication. Worry about dependence on drugs and long- term effects.

Realities

"Regarding patients' views of reality as ignorant or misguided and attempting to persuade them of the value of the biomedical approach have limited value in increasing adherence, and the need to integrate patient' perspectives has been recognized recently". (Green and Britten, 1998:1231).

3. APPLICATION AND TECHNIQUES

Uses of Qualitative Research in Health Services Researches

Qualitative techniques have a wide range of applications in health care research. Qualitative research methods have been commonly used in research documenting the experience of chronic illness, and in the functioning of organizations, although they have been less frequently used in the assessment of outcomes of treatment. This is because the testing of causal hypothesis takes place in a context that subscribes to the traditional, positivist view of science, which requires adherence to the scientific method and uses experimental research designs and structured, standardized methods. While qualitative methods were not designed to test causal hypothesis, it is appropriate for the investigator to exercise curiosity and devise qualified hypothesis about cause and effect relationships in relation to the phenomenon observed (e.g. 'It is possible that…). The qualitative investigator has the advantage of getting close to the research material, and can obtain a grate deal of in-depth information that can be tested in subsequent quantitative studies if necessary and appropriate.

When is it appropriate to use in health services research?

- To open up a new field of study.
- To identify salient issues
- To explain unanticipated or inconclusive findings.
- To explain contradictory findings from quantitative studies.
- As a precursor to quantitative studies.
- In combination with quantitative studies (thicker understanding and triangulation).

Preparing for a Qualitative Research Study

You must identify the problem you wish to study and generate research questions concerning the problem. Review the literature to gain an understanding of the depth and parameters of your problem, as well as other people's views on the topic. You will need to formulate background material and decide on a theoretical base within which to design the study. Finally you will choose a research design encompassing data collection and analysis techniques.

General Components of Qualitative Research

The Problem

Qualitative research begins with a problem or issue of interest that guides the entire project. It will dictate the style of the research design, the data collection techniques, and even the presentation of the findings.

Theory

No study, naturalistic or other wise can be conducted without an underlying theory or model. It may be a formal anthropological or psychosocial theory or a personal model about how things work, but theory is crucial in the definition of the problem and in deciding how to tackle it.

Theories need not be elaborate sets of constructs, assumptions, propositions, or generalizations. They can be personal theories about how the world, or some small part of it, works.

Research Questions

Although the qualitative researcher will have developed some research questions during the research design phase, any more questions will typically be generated during the initial survey phase of fieldwork.

Research questions are fluid in naturalistic research, unlike the fixed hypothesis mode of quantitative research. Some questions may be dropped as irrelevant; some may be modified as additional data are gathered; and new questions may be added as the study proceeds.

Participant Selection

Qualitative research can be characterized as an inquiry in which the investigator observes and questions participants in their own setting, to learn their perspective on things – a naturalistic inquiry. Therefore, researchers will use purposeful sampling to choose participants who can offer the fullest and most relevant information about the topic under study. In purposeful sampling, you must establish the criteria or conditions necessary to be included in the study, the purposefully, choose a case or cases that match these criteria. The participants who turn out to be the most reliable and informative become the key informants. Others may have useful information to add and will be seen as secondary informants.

There are several types of *purposeful sampling*, and they are chosen according to the researcher's needs for a particular study. Some of the most popular types are:

- ***Typical:*** A case is chosen because it is thought to be like the majority (i.e. typical). For example, a therapist might want to see how a typical person with hemiplegia proceeds through a particular rehabilitation program.
- ***Extreme or deviant:*** After the norm for a typical case is established, the researcher might want to explore extreme cases in order to make a comparison, for example, a person with hemiplegia who does not complete the rehabilitation program or a person who completes the program in an extremely short time.
- ***Comprehensive:*** A situation in which all the cases in a sample can be examined, fro example, all the people with hemiplegia completing rehabilitation program with a particular treatment regimen.
- ***Unique-case selection:*** Selection is based on unique or rare attributes, for example, a person with double lower extremity amputations who becomes an athlete.
- ***Reputational-case selection:*** A case is chosen on the recommendation of experienced experts, based on its reputation, for example, a highly successful caregiver support program for persons caring for a spouse with Alzheimer's disease. The program is recommended by an expert in caregiver support programs because of its excellent reputation.
- ***Comparable-case selection:*** Selecting cases on the same relevant characteristics over a period of time in order to compare results for replication, for example, selecting a person with hemiplegia who successfully completes a rehabilitation program, for each month, over a 6-month program.
- ***Critical case selection:*** The one case that makes the point dramatically, for example, a program succeeding in a particularly difficult location, a successful program with especially low overhead costs, or a rehabilitative program showing an extremely high success rate with severely disabled clients.
- ***Convenience sample:*** The case or cases that can be studied most easily, cheaply, or quickly, for example, persons with hemiplegia participating in the rehabilitation program run by the researcher.

Data Collection

Often, the only data collection "instruments" used during qualitative research are the investigators themselves. Qualitative researchers generally collect data via observation, interviewing, and tape recording in the field. Because they are the ones observing the events and asking the questions, they are considered the data collection "instruments". Some of the actual processes of collecting data include observation, interviewing, filming, photography, and record and artefact review.

Data Analysis

Qualitative data analysis is the process of systematically organizing the field notes, interview transcripts, and other accumulated materials until you understand them in such a way as to address the research questions and can present that understanding to others. Several techniques can be used to analyze qualitative data; the technique chosen depends on the goal of the study.

Report Writing

Naturalistic reports generally take the form of long narratives, sometimes interspersed with pictorial presentations. There are many formats to choose from. You will still need a beginning, middle, and an end.

The beginning:

The beginning portion of the report should include a general background to help readers understand the focus of your paper. The introduction often concludes with a description of the design of the rest of the paper. The description should include a discussion of the research methods and techniques used, the time and length of the study, the number of settings and subjects, the nature of the data, where and how the documents were located, researcher-subject relations, checks on data, and other information that might help the reader evaluate the soundness of your study.

The middle:

The middle of the paper makes up the bulk of the work. This where you argue your thesis, present your theme, and illuminate your topic. Everything in the core of the paper should relate to the focus specified in the introduction. The material comes from the data analysis and can be patterns, themes, and relationships that arose from coding

and categorizing the data. Use the most salient quotations you can find judiciously to illustrate the main points of the thesis.

The end:

The end section should be written as a conclusion. Often the focus is decisively restated, the arguments reviewed, and the implications elaborated.

Exercise 1 and 2

Instruction

Read the two articles on Annex IV-A and Annex IV-B (on pages 50 and 58), and try to address the following questions.

- **Annex IV-A. 'Disability and Parenting'**

  What makes the research qualitative? Is the research qualitative?

  Exploration in pairs about whether the research outlined in the 'Disability and Parenting' proposal is qualitative.

  Questions to consider

  - Does the research allow respondents to shape the research agenda (questions) and interview content (responses), e.g. how structured is the schedule?
  - What kinds of questions are asked? e.g. are some questions more qualitative?
  - Consider whether there is probing, e.g. drawing out of the explanations?
  - Is there a set order to the questions?
  - Are the interviews transcribed? How long are the interviews?
  - How is the analysis conducted, e.g. what is done with the responses/ text?
  - What is the theoretical position of the researchers?

- **Anne IV-B. 'Barriers to referral in patients with angina: qualitative study'**

  Reviewing the quality of a qualitative study

  Examination of a published qualitative study in the British Medical Journal (BMJ), 'Barriers to referral in patients with angina: a qualitative study', by Katy Gardner and Alison Chapple.

Read this article and make notes about its quality, Address the following issues in your investigation:

- In what way is the study qualitative?
- Is the sampling frame adequate?
- Are the results valid?
- Are the results generalizable?

4. QUALITATIVE RESEARCH METHODS

Choosing a method depends on:

- Subject under investigation
- Researcher's preferences
- Time and money available
- Funders and/or audience

Qualitative methods in applied research, what questions can they investigate?

- **Contextual:** identifying the form and nature of what exists
  - What are the dimensions of attitudes/ perceptions that are held?
  - What is the nature of people's experiences?
  - What needs does the population of the study have?
- **Diagnostic:** examining the reasons for, or causes of, what exists?
  - What factors underlie particular attitudes or perceptions?
  - Why are decisions or actions taken, or not taken?
  - Why do particular needs arise?
  - Why are services or programmes not being used?
- **Evaluative:** appraising the effectiveness of what exists
  - How are objectives achieved?
  - What affects the successful delivery of programmes or services?
  - How do experiences affect subsequent behaviours?
  - What barriers exist to systems operating?
- **Strategic:** identifying new theories, policies, plans and actions
  - What types of services are required to meet needs?
  - What actions are needed to make services more effective?

- How can systems be improved?
- What strategies are required to overcome identified problems?

The qualitative methods are:

A. OBSERVATION

Observation of behaviours, actions, activities and interactions is a tool for understanding *more* than what people say about (complex) situations, and can help to understand these complex situations more fully.

It can be participative or non-participative, structured and quantitative (with a checklist, categories to check, rating scales) or unstructured and qualitative (direct recording of events and stories as they occur). It can be acknowledged and overt or concealed.

In social science, the definition of observation is not limited to 'watching' but extended to the *direct* gathering of information by the investigator using the senses, generally both sight and hearing. Observation is a research method in which the investigator systematically watches, listens to and records the phenomenon of interest.

Observation does not depend on people being willing to be interviewed or the existence of accurate and complete documents. It does not depend on the memory of knowledge of interviewees, or their reporting of attitudes and behaviour – all of which can be the subject of bias.

Observation has other limitations, however, such as observer bias, the reactive effects of the observer's presence and the impossibility of observing a large random sample of people, organizations or other units of study.

As the settings for the investigator usually deliberatively chooses the observations, the sampling technique is purposive. The settings are usually natural, but they can be laboratory settings, as in psychological research.

Qualitative observations are frequently referred to as ethnography. Ethnography is derived from anthropology and adheres to the philosophy of phenomenology. It is based on the need of the investigator to understand the 'symbolic world' of the group of interest (the meanings of people develop about their experiences) and the study of behaviour in natural, as opposed to the experimental, laboratory settings of, e.g. psychologists. It involves a triangulated approach to research: for example,

using a combination of unstructured interviews and record research to supplement and validate the observations.

Participant Observation

It is a qualitative observational technique, which involves the observer (researcher) in the activities of the group being observed. Events are observed and recorded, together with the interpretation and explanation of them by the other 'actors' (participants). It is the best method for understanding the experiences of people, and the meanings they attach to them, although the types of observations are limited by the social role undertaken by the observer.

Concealed Participant Observation (Covert participant observationion)

The participant observer may be honest about his/her role in the group, or may conceal the investigation and pretend to be a normal member of the group.

Concealment does raise ethical questions in relation to the lack of informed consent. On the other hand, concealment is sometimes the only way to increase knowledge about the society. One of the most well known examples is Rosenhan's (1973) participant observation study in the USA, in which the members of his research team feigned the characteristics and behaviour of people with a diagnosis of schizophrenia (e.g. 'hearing voices'). They acted as 'pseudo-patients' in order to a psychiatric hospital for their observations.

Concealment can also lead to a grate deal of emotional stress on the part of the observer: the stress of not 'fitting in', of knowingly creating deception, of discovery, and even stress owing to the desire to abandon the research and properly join the group under study.

Overt (Non-participant observation)

Observation and participant observation may be overt. Gaining access to the desired setting in overt observational studies is potentially a problematic area. There may be suspicions about academics and their motives among local communities, as well as feelings of personal and professional threat. Time must be spent forging links with the community of interest before access can be expected, and explanations should be offered about how the study can be mutually advantageous.

In overt observation, access is usually obtained through negotiations with a 'gatekeeper' (e.g. the head of an organization). The first step is writing to the heads of organizations on the official headed paper about the aims, nature and confidentiality of the study, and its potential value. This permission is often given without consulting the members being studied, and the investigator needs to be aware of this, because the observations then become covert.

Structured Observations: what to record?

The researcher has begun with a conceptual definition, specified what is to be observed and standardised with a validated measuring instrument, and the proceeds to make the observations in order to test the theory.

Box: Structuring Observations

- **The setting.** What is the physical environment like? What is the context? What kinds of behaviour are promoted or prevented?
- **The participants.** Describe who is in the setting, how many people and their roles. What brings them together and who is allowed there?
- **Activities and interactions.** What is going on? Is there a definable sequence of activities? How do people relate to the activity and relate to, and interact with, each other?
- **Frequency and duration.** When did the situation being observed begin? How long does it last? Is it recurring and, if so, how often, or is it unique? How typical of such situations is it?

  Subtle factors. Informal and unplanned activities; symbolic and connotative meanings of words; non-verbal communication (e.g. dress, space); unreactive indicators such as physical clues; what does not happen but should? (Merriam, 1988 in Bowling, 1997).

"The primary advantage of observational methods is… to gain access to behaviour of which individuals themselves may provide biased accounts, or indeed be unaware. However, the primary advantage is that it is particularly labour intensive in terms of both data collection and analysis" (Fitzpatrick and Boulton, 1996, 124-6).

Note

- Easier to be an observer in a public rather than a private place.
- Need to be in the right place at the right time.
- Can be unproductive and time wasting.
- Observe what people do as well as how they talk about it.
- Observer needs to keep careful field notes.
- Be particularly well in looking at doctor-patient relations and community studies. (Ethnography: studying human behaviour in its natural context).
- Use structured/ unstructured questionnaires.
- Problems:
  - Observer effect (Hawthorne effect)
  - Rich data but may be hard to quantify or replicate.

B. INTERVIEWS

There are different types of interviews:

Structured

Standardised questions; closed questions; set order of questions

Semi-structured

Open and closed questions together or the fixed interview guide approach where agenda set but open questions? Pre-determined questions.

In-depth (Unstructured/focused)

Issues covered in detail; respondent leads the interviews/sets the agenda; no fixed order? Method of analysis?

In-depth or Semi-structured Interviews

An in-depth interview is a conversion between the researcher and the subject about the research area or topic. It is designed to allow the respondent to tell their story in their own way, while ensuring that the aspects the researcher wants to explore are covered. It also allows the subject matter to be explored in some depth to discover the nature of the experience, feelings and perceptions of the respondent

Characteristics of structured questionnaires and semi-structured interviews

Structured Questionnaires	Semi-structured Interviews
Asks the same questions of each respondent using the same wording typically has a limited range of possible answers.	Allows the respondent to express their ideas in their own way using and their own words and determining the range of aspects and issues they want to raise.

Conducting an in-depth interview

An interview guide is usually prepared. An interview guide:

- Helps the interviewer to remember the points to cover.
- Suggests ways of approaching and talking about topics.
- Reminds the interviewer about probes and ways of asking questions.
- Includes an introduction and way of ending the interview.
- Ensures that the interviewer covers all the topics.
- Gives a possible order of topics.
- Helps the interviewer to enable people to talk in their own way, and fully as possible.

Beginning the Interview

The first questions should be designed to put the respondent at ease and to help them to begin to talk. Asking them to describe their situation or something that has happened to them will help them to fell they have something to say, and will begin to give them a clearer idea of the nature of the interview.

The Body of the Interview

The interview then moves into the areas of particular interest to the researcher, and as the interview progresses the rapport between researcher and respondent develops and more detailed or sensitive areas may be discussed. The respondent may not talk about the topics raised in the same order or way that the researcher has anticipated, and he/she must be prepared to be flexible and to come back to explore in more depth areas that have been mentioned but not developed by the respondent.

Ending the Interview

As the interview draws to its close the researcher moves on to less sensitive and more general matters. The respondent should be reminded again that the interview is confidential, and the researcher should ensure that the respondent is content with the way in which the interview has developed.

Reading the Interview

In-depth interviews are usually recorded and then transcribed. The interviewer must be familiar with the tape-recorded and have sufficient tapes and batteries.

If notes are being made these can be limited to reminders during the interview and then written up as fully as possible immediately after the event, using the interview guide as a reminder of the areas covered.

Box: Tips on In-depth Interviewing

- Remember the interview is a conversation, not an interrogation
- Have a naïve curiosity: don't assume that you understand what the respondent means – ask:
    - 'Can you tell me more about that?'
    - 'Can you tell me how you feel about that?'
    - 'In what way was that a good/bad experience?'
- Try to sit an angle to the respondent and maintain eye contact
- Don't be thrown if they say something which shocks or surprise you
- Look expectant, and encouragingly, say 'that's interesting!'
- Use probes to encourage people to tell you more:
    - 'What happened next?'
    - 'Can you tell me more about…..?'
    - 'You said earlier that…could we talk a bit more about that?'
    - 'How do you mean?'
    - 'In what way?'
- Embarrassing situations and sensitive issues may be tackled by:
    - 'What about you? How do you feel about that?'
    - Some people say that…what do you think about?'

- Avoid double questions, e.g. 'How do you feel about going there with other people and having to do what they want to do?'
- Avoid leading questions, e.g. 'don't you think it would be better if…?'
- Don't sum up what people say: rather, say:
    - 'Am I right in thinking that you…?
- Don't interrupt the flow if they don't immediately answer the question, but don't let them stray too far away from the topic – gently bring them back! 'That's very interesting; I wonder if we could now move on to talk about…?

C. FOCUS GROUPS

Focus groups are used as a research method to find out what groups of people think and how they discuss ideas together. The focus group therefore attempts to recreate a natural phenomenon: a group of people with something in common discussing an issue, an experience or an event. A focus group is not used to find out what each individual thinks or has experienced, but rather how the group discusses the topic being researched. The group will often be given a task. The group discussion is then structured to allow the group to discuss the issue before moving on to complete the task, which may be, for example, to identify the most important point that have been raised in the discussion, or to prioritise areas for improvement in service provision.

The focus group facilitator prepares a guide to help in structuring the discussion while allowing the interaction between the members of the group to develop.

A focus group is:

- A group discussion i.e. group discusses views with each other.
- 8-10 homogenous group.
- Focused on a particular topic.
- Have members who have something in common.
- Led by a facilitator.
- Time limited.
- Task limited.

Running Focus Groups

Like the in-depth interview, the focus group has a beginning, middle and an end.

- Beginning - getting people talking, relating experiences and ideas.
- Middle - helping people to focus by asking more specific questions.
- End - completing the group task.

Advantages:

- May encourage people to participate who otherwise may not want to.
- Inter-interviewee ideas.
- May be able to generate breadth quicker than interviews.
- Quick method for establishing parameters.

Disadvantages:

- Some topics may be too 'sensitive' and too personal.
- Deviant views may be inhibited.

D. DOCUMENT

Documentary evidence

- Independent evidence e.g. medical records, patient diaries.
- May provide an historical context.
- Useful for subjects difficult to study – 'inside story'.
- Autobiographical/ semi-autobiographical material valuable to both researcher and Health professionals.

What Qualitative Research Methods are Good for?

- Help to explain the social world and some phenomena.
- They can be used to test/examine hypothesis or models.
- They are also useful for comparing the views of social groups. E.g. to understand the perspectives of two groups such as doctors and patients on an issue.
- Helps to study social networks, or the interconnection between people in a community.
- Ethnological techniques can be used to study the impact of social events.
- Sociological phenomena, such as medical pluralism, i.e. the idea that patients can simultaneously participate in allopathic medicine and other alternative techniques such as homoeopathy.

- The whole phenomenon of 'deviance' (in its sociological sense) is best studied by qualitative techniques.
- Particularly suited to understanding groups of people and their behaviour, in addition to that of individual people. Thus they can be used to understand the behaviour and needs of particular subgroups of society, such as single parents, the elderly, ethnic minorities, and even such sociologically bizarre groups as doctors.

In short qualitative methods are good to:

- Study of explanatory models (e.g. Health Belief Model)
- Comparing different perspectives of different groups (e.g. doctors and patients)
- Identifying social networks
- Assessing the social impact of events
- Studying medical pluralism
- Study deviance (e.g. non-compliance)
- Understanding behaviour of social groups.

Examples of Qualitative Research Methodologies.

Perhaps one of the original methods that are exclusively qualitative is that of '*participant observation',* and is particularly associated with the early development of *anthropology* as a discipline.

Originally it involved the anthropologists going and living in the social world of others who he/she sought to understand, typically in those days 'undiscovered' African tribes. By 'immersing' him- or her in the social world of the subject tribe, the anthropologists would be able to understand the culture in greater depth than would be possible from any lesser degree of involvement. Field notes, transcripts of conversations and cultural artefacts, along with explanations of their meaning to the tribe and so forth, constituted the *'data'.*

Observation is never either entirely *participant*- one can never actually go completely native- or entirely *non-participant,* in that to gain people's trust sufficiently to understand them one must to some degree give up one's objective stance.

Thus, participation or non-participation in sociological observation is never absolute, but it is always just a matter of degree.

Qualitative research, including both participant and non-participant observation, will usually involve some *interviews.*

Interviews are usually classified as *structured, in-depth (unstructured), and semi-structured.* There is no such thing as a totally unstructured interview, as the participants structure all interviews in real time, either consciously or unconsciously.

'Focused interview' is another term you will hear which suggests more rather than less structure**.**

Some other methodologies are

- Ethnology: the actual study of peoples and culture.
- Ethnography: the description of peoples and culture.
- Ethnomethodology: encompasses some of the methods used.

All derived from the Greek *ethnos,* meaning *nation.* It is the same word that give rise to the more commonly word *'ethnic',* referring to a supposedly culturally homogenous group.

There is a host of other terms that describe various aspects of the qualitative research tradition. Many depend on the analysis of artefacts, usually written such as archives, literature, reports, etc. Such documentary materials is analysed using techniques broadly described as *'contents analysis'.*

Other methods rely rather more on oral accounts and histories, sometimes described as *'narratives'.*

Other less familiar and conceptually more difficult terms include *phenomenology, hermeneutics and Grounded theory, etc. Grounded theory* looked at more detail and it is a very common methodology approved by health service researchers.

In summary, some examples of qualitative research methods are:

- Participant Observation
- Non-participant observation
- Unstructured Interviews
- Semi-structured interviews
- Focused interviews

Methodologies are:

- Ethnology
- Ethnography
- Pathography (= the skill of ethnography applied to the particular context of medicine)
- Content analysis

5. DATA COLLECTION AND DATA ANALYSIS IN QUALITATIVE RESEARCH: FRAME WORK APPROACH AND GROUNDED THEORY

Aims of qualitative data analysis:

- Qualitative data is text from observation notes, in-depth interviews, or documentation.
- Produces a large volume of data (an interview is 20 plus pages and 6 hours transcription).
- Researcher aims to provide a coherence and structure.
- Detection concerns defining, categorizing, theorising and mapping.
- Balance between external and internal: maintain context and richness.
- Analysis is in and out of the field: it is a process not a stage.
- Analysis needs to be explicit: researcher as instrument idea.

Characteristics of qualitative data analysis:

- Analysis begins as soon as the first data are collected.
- Analysis is systematic but not rigid.
- Analytical notes are recorded during data collection.
- Need to keep sense of the whole.
- Not a mechanical process – interpretive.
- Analysis relies on cutting, sorting and pasting.

The goal of analysis: it has to go beyond descriptive summation… it needs to establish *meaning*… and reach for *explanation.*

In qualitative research data collection data analysis are interwoven. In much qualitative research the analytical process begins during data collection as the data already gathered are analysed and shape the ongoing data collection. This sequential analysis has the advantage of following the researcher to go back and refine questions, develop hypotheses, and pursue emerging avenues of inquiry in further depth. Crucially, it also enables the researcher to look for deviant or negative cases; that is, examples of talk or events that run counter to the emerging propositions or hypotheses and can be used to refine them. Such continuous analysis is almost inevitable in qualitative research.

The two main approaches to data collection and data analysis are:

a. Framework- practical and quicker
b. Grounded Theory- more theoretical, sociological and extensive.

Framework Analysis

- Used to analyse in-depth and focus group data.
- Facilitates systematic analysis.
- Based on content analysis method.
- Involves summarizing and classifying data within a thematic framework (code book).
- Relies on 'skills' of the analyst.

The five stages of Framework Analysis:

Stage I. Familiarization

- Fresh look at the data as analyst rather than collector.
- Gain an overview of the data collected.
- Need to see the data (listening to tapes/reading transcripts)
- Selection of interviews to ensure full range if time limits.
- Make notes on key ideas and recurrent themes.

Stage II. Identifying a thematic framework

- Return to notes made in the familiarization stage and any reading/literature review.
- Pull together the key issues, concepts and themes that are noted.
- Refer to the topic guide for (a priori) structure.
- Draw up a thematic framework (or code book).
- Construct an index, which draws on priori issues and emergent themes – inductive.
- Refine as they are applied to the data.

Stage III. Indexing

- Process of systematically applying the thematic framework to the data.
- Provides a mechanism for labelling data.
- Makes data manageable.
- Keep index broad at first.
- Make in pencil initial categories in the margins of each transcript.
- Be flexible about categories.
- Indexing ensures process of analysis is visible to others.

Stage IV. Charting

- Need to build picture of the data as a whole.
- Use A3 paper: Data is lifted out of the text and put into a thematic reference.
- On the left mark the interviewees with brief relevant demographic details.
- Use codes for interviewee's names where possible.
- Along top of chart mark the sub-categories. Put the title of the chart along the top.
- Summarise sections from transcripts into relevant boxes.
- Highlight good quotes/interesting comments.
- Don't try to write too much in a box/can refer back.

Stage V. Classifying and interpreting qualitative data

- Conceptual definition.
- Form and nature of the phenomena: processes; systems; attitudes; behaviours; decisions and judgements.
- Creating typologies.
- Finding associations between attitudes and behaviour; experiences and attitudes; circumstances and needs.
- Providing explanations (explicit or implicit).
- Developing/ identifying strategies, ideas, theories/hypothesis.

Grounded Theory

The grounded theory is a method for discovering theories, concepts, hypothesis, and propositions directly from data, rather than from prior assumptions, other research, or existing theoretical frameworks.

In social science it is common to use 'grounded theory' approach in qualitative approach. This refers to a process of discovering theory from data that have been systematically gathered and analysed: 'generating a theory from data means that most hypothesis and concepts not only come from the data, but are systematically worked out in relation to the data during the course of the research' (Glaser and Strauss 1967). It is a theory that is *inductively* derived from the study of the phenomena it represents rather than deductive. Thus data gathering, analysis and theory have a reciprocal relationship. In social science, where it is not always possible to control the conditions under which social phenomena are observed, there is greater need to build theory inductively from several observations before a predictive, explanatory theory can be derived.

Grounded theory is frequently used in research:

- "To denote an approach to data analysis in which theory has emerged from the data. Rarely is there a genuine interweaving of data collection and theorising …" (Bryman and Burgess, 1994:6).
- "As a general indicator of the desirability of making theory from data, rather than a guide to a method of handling data". (Richards and Richard, 1994:149).

Defining the Grounded Theory Approach

"The Grounded Theory Approach encourages the initiation of research without any preconceived theoretical ideas about the topic being researched (such as patient care in hospitals) or the findings that might result from such research. The aim is to develop theory and concepts from the data as the research unfolds. Obviously, researchers cannot rid themselves of all preconceived notions, but the point of grounded theory is to encourage the researcher to be as flexible as possible when interpreting the findings of the research. In this respect, the researcher should adopt theoretical ideas which fit the data collected during the research rather than collecting data that fit a pre-conceived hypothesis or theoretical idea" (Layder, 1993).

Grounded Theory: how inductive is it?

"It is inductive in so far as understandings, categories and theory are developed directly from the data, rather than through approaching the data with predefined constructs to investigate and hypotheses to test. However, as analysis proceeds, the

researcher actively seeks to develop understandings and hypotheses as to what is going on and how it is ordered. This stage is essential in developing a theory of the phenomenon. These ideas are then tested deductively through further data collection and analysis. Thus, doing grounded theory involves a sequence of deductive and inductive thinking throughout the process. The inductive label is often given to grounded theory because of its emphasis on the principle that all aspects of this process must be grounded in the data." (Murray and Chamberlain, 1999: 184.

Stages of collection and analysis in Grounded Theory

Data collection (sampling) and analysis occur simultaneously so that each stage of data analysis has a different form of sampling. There are three stages:

Stage I. Open sampling and open coding

Text is broken into this first stage and sampling is preferably systematic but sometimes fortuitous to obtain data are relevant to the research question.

Sampling is about the explicit generation of information to refine and develop theory rather than the notion of randomness or representation.

Saturation of the theory is when no new categories are found which relate to the central issue or process being researched, and the theory can account for all the data that have been obtained (check by examining the negative instances).

Stage II. Purposive sampling and axial coding

Purposive sampling is about locating more data to confirm/ elaborate categories, identify relationships or suggest limits to their applicability. Analysis is axial coding – categories are refined, developed and related to one another.

Coding: The process of making the data manageable by classifying into topics and sub topics and attaching labels to concepts and themes that appear in the data.

- *A priori labels – are those that are formulated before the research has begun.*
- *Inductive codes – emerge out of the process of analysis and collection of data.*

Constant comparative method

Involves comparing incidents, informants or categories systematically for differences between them. This will promote the identification of the properties of the categories (for example when does this category not apply), and also of the links between properties. Constant comparative method interweaved with other processes such as memo writing, questioning and hypothesis testing. It is a method of generating theory.

Stage III. Discriminate sampling and selective analysis

Deliberate and directed selection of further data from persons, sites or documents to confirm that the theoretical account is saturated. Core category is identified and related to the other categories.

Theory Development

A. **Analytical questioning**

Early stage questioning:

What is the event characteristic of?

Whom does it apply to?

Where does it occur?

Why is it happening?

Later stage questioning:

What does this incident reveal?

What does it mean?

How does it relate to other incidents?

Does it apply to all informants?

Is it specific to one kind of setting?

Questioning moves from the specific to the abstract as data analysis proceeds. Researcher is developing theories about the properties of the categories and the relationship between them.

B. **Memo writing and diagrams**

Memos: long hand notes of ideas, interpretations and hypothesis written during the fieldwork and analysis. Provides an opportunity for the researcher to engage with the material and examine emergent properties.

Diagrams: visual representations of the analysis, which provide an overview of it. Assists in identifying relationships between categories and showing where there are theoretical gaps.

C. Core categories

The predominant category is the category that ties all other categories together. It can account for the wide variation in the phenomenon and links all the categories together. Often it is a social process and typically only one in a Grounded Theory analysis.

Examples:

Normalcy - Aftermath of coronary artery bypass surgery (Keller, 1991)

Taboo – Patients experiences of dying with cancer (Exley, 1999)

Stigma – Mental health problems (Glaser and Strauss).

Level of abstraction in Grounded Theory: substantive or formal?

- *Substantive Theory* is theory "developed for a substantive area such as patient care, race relations, professional education, geriatric lifestyles, delinquency or financial organizations".
- *Formal Theory* is "developed for a formal or conceptual area of sociological inquiry such as career, status passage, stigma, deviant behaviour, socialization…" (Glaser and Strauss, 1971: 177-8).

  Formal Theory develops out of substantive theory.

6. ASSESSING QUALITY IN QUALITATIVE RESEARCH

Some questions about quality that may be asked of a qualitative study:

- **Are the processes of data collection adequately described?**

Sampling: Did the sample include the full range of possible cases or settings so that conceptual rather than statistical generalisations could be made (i.e. more than convenience sampling)? If appropriate, were efforts made to obtain data that might contradict or modify the analysis by extending the sample (for example, to a different type of area)?

Data collection and analysis: Were the data collection and analysis procedures systematic? Did the analysis incorporate all the observations? To what extent did the analysis develop concepts that explained observations? Was it possible to follow the iteration? Did the researcher search for disconfirming cases? Is evidence provided in support of the analysis? Is sufficient original material presented?

Reflexivity of the account: Did the researcher assess the likely impact of the methods used on the data obtained? Was sufficient data included in the reports of the study to provide evidence for the conclusions that were drawn? (Mays and Pope (2000). Assessing quality in qualitative research).

- **Worth or relevance:** was this piece of work worth doing at all? Has it contributed usefully to knowledge?
- **Clarity of research question:** if not at all the outset of the study was it clear by the end? Was the researcher able to set aside his/her research pre-conceptions?
- **Appropriateness of the design of the question:** would a different method have been more appropriate? For example, if a causal hypothesis was being tested, was a qualitative approach appropriate?
- **Context:** is the context adequately described so that the reader could relate the findings to other settings? Is there evidence that supporting material is representative? Is there evidence to establish validity? Is there evidence of efforts to establish reliability? Is the study set in a broader context?

Why Qualitative Methods are suited to Primary Care Research?

- Focus on people as social beings rather than as physiological systems

- Shared concern with the meaning of events for people
- Holistic approach
- Small numbers are acceptable
- Depth understanding may be acquired over time
- Access to ‘private worlds’.

Why the good GP is already an Ethnographer?

- Uses case histories as main investigative tool
- Takes a social and personal history
- Allows patients to express the meaning of events
- See patients in their cultural context
- Already belongs to the community under study
- Open-minded (few preconceived notions)
- Used to unorganized illness
- Open to the unexpected.

Exercise 3: Choosing the appropriate method

In pairs consider the following scenarios and consider how you would conduct some qualitative research with group and the pros and cons of using interviews, observation or focus groups with each:

- Children’s experiences of asthma clinics

- Women’s experiences of undergoing cervical smear tests

- Multiple Sclerosis patients’ difficulties of accessing dental health services

- GPs perceptions and experiences of providing care for refugees and asylum seekers.

7. QUALITATIVE VERSUS QUANTIATIVE RESEARECH APPROACHES

The following summarized points will help the researcher to compare and decide which type of research method to choose for his/her study.

A. Purpose

Quantitative: The purpose is theory testing: to establish facts, show causal explanations and relationships between variables, allow prediction, and strive for generalizability.

Qualitative: The purpose is to develop concepts that will sensitize readers to different cultures, describe multiple realities and interpretations, develop grounded theory, and develop an understanding of the perspectives of the actors and of that particular setting.

B. Designs

Quantitative: The designs are predetermined and structured, and do not change during the course of the study; they are formal and specific according to a defined plan of operation.

Qualitative: The design fall at the other end of the spectrum. They are general in nature rather than confined, evolving through out the study and remaining flexible to allow for change; they are used as a "hunch" as to how to proceed.

C. Data

Quantitative: The data gathered in quantitative research designs are quantifiable and statistical, using counts and measures. Variables are defined ahead of time, and data are managed according to the procedures outlined in the research proposal.

Qualitative: Data gathered in qualitative designs are descriptive and deal with qualities. They may consist of field notes, artefacts, people's own words, personal documents, or official documents. Qualitative data are extensive and difficult to manage. Their management requires specific techniques, just as numerical data do.

- Qualitative research can produce vast amount of data. These may include:

- Verbatim notes or transcribed recordings of interviews or focus groups,
- Jotted notes and more detailed "field notes" of observational research,
- A diary or chronological account, and
- The researcher's reflective notes made during the research.

- Transcripts and notes are the raw data of the research. They provide a descriptive record of the research, but they cannot provide explanations. The researcher has to make sense of the data by sifting and interpreting them.

Collecting the Data

Qualitative data are often relatively unstructured: they come in the form presented by the subjects of the research, rather than being pre-packaged by the researcher. The researcher needs flexibility and adaptability to respond to the research subjects, rather than imposing a structure upon them. The researcher is, in effect, creating a natural situation, be it a conversation or a group discussion or observing a natural situation, in order to collect the data. Qualitative data come in many forms, and the ways of collecting are limited only by the researcher's imagination and skill. They include:

- Semi-or unstructured interviews, individual or group
- Stories, poems
- Diaries
- Documents, reports, minutes
- Observations of situations and events, participant or non-participant
- Videos, pictures, photographs
- Others!

The two most commonly used of these sources of qualitative data are in-depth interviews and group interviews, often called focus groups.

D. Subject Samples

Quantitative: The subject samples tend to be large, requiring random selection to yield precisely defined subjects who will be typical of those in the population. There is usually a control group to control for extraneous variables.

Quantitative enquiry:

Purpose: forecast, estimate population parameters, identify trends; explore correlation and causation, indicate frequency, and make statistical inferences.

Achieved by: using random, probability samples; large samples, minimize sample error, increase confidence; statistical representatives.

Qualitative: The group of participants is small and may be non-representative of the larger group. Sometimes researchers stratify their participant selection in order to sample people with different roles or status in the community.

- Theoretical determinants (not a 'rag bag').

New cases must continue to provide new insights. Informational needs guide the size.

- Practical considerations (controlled sampling).

What do you want to know?

The nature and diversity of the target sample.

Available time and resources.

- Optimum size

Range between 20-60 interviewees. When designing think of lower and upper limits.

Qualitative enquiry:

Purpose: in-depth illumination and explanation, representation.

Achieved by: using purposeful selection of information rich cases; study in-depth.

E. Investigator's Relationship with Subjects

Quantitative: The quantitative researcher has circumscribed contact with the subjects on a short-term basis. He/she is detached and distant, keeping the roles of researcher and subject distinct. The researcher's role is to observe and measure, and care is taken to prevent the researcher from influencing the data through personal involvement with the research subjects. It is of utmost concern that the researcher be objective.

Qualitative: The investigator usually has intense contact with participants over a long period of time. There is an emphasis on trust. The informants are viewed as participants in an egalitarian relationship, and the investigator may empathize with the informants and their situations.

F. Techniques or Methods

Quantitative: Those used in quantitative methods include experiments and quasi-experiments, structured surveys, structured interviewing (market research), structured observation/ formal observation (quantifiable boxes), data sets, manipulation, control and statistical analysis of data.

Qualitative: Techniques used in qualitative methods include observation, participant observation, reviewing documents and artefacts, open-ended/ informal interviewing, in-depth interviews, focus groups, coding, searches for patterns, pattern matching, and narrative and displays for portrayal of data.

G. Instruments and Tools

Quantitative: The instruments and tools for data collection used in quantitative studies are varied and can be quite complicated. They may consist of scales and tests, inventories, questionnaires, or various types of hardware.

Qualitative: The researcher is often the only "tool" for data collection. He/she may make use of guiding questions, as in an interview, as well as using mechanical tools such as audio or video tape recorders and a transcriber.

H. Data Analysis

Quantitative: Data analysis occurs at the conclusion of the data collection in a quantitative study. It tends to be deductive and tends to use statistical manipulation in accordance with the proposal guidelines. It is a straightforward operation that is often complicated rather than speedily.

A fundamental difference is that the quantitative researcher seeks evidence to prove or disprove hypothesis that were developed before the study.

Qualitative: On the other hand, data analysis is ongoing throughout qualitative studies, using a constant comparison method. Data are analyzed as they are gathered, then reanalysed in the light of new information, in a recursive manner. Qualitative data analysis is inductive in nature and addresses models, themes, and concepts. Techniques such as coding, memoing, event listing, pattern- matching, charting, matrices, and triangulation may be used.

In qualitative data analysis theory is built as the data are grouped and analyzed – theory emerges from the bottom up.

In much qualitative research the analytical process begins during data collection as the data already gathered are analysed and shape the ongoing data collection. This sequential analysis has the advantage of following the researcher to go back and refine questions, develop hypotheses, and pursue emerging avenues of inquiry in further depth. Crucially, it also enables the researcher to look for deviant or negative cases; that is, examples of talk or events that run counter to the emerging propositions or hypotheses and can be used to refine them. Such continuous analysis is almost inevitable in qualitative research.

The analysis:

- In general, qualitative research does not seek to quantify data. Simple counts are sometimes used and may provide a useful summary of some aspects of the analysis.
- Qualitative sampling strategies do not aim to identify a statistically representative set of respondents.

- In most qualitative analysis the data are preserved in their textual form and "indexed" to generate or develop analytical categories and theoretical explanations.
- Qualitative research uses analytical categories to describe and explain social phenomena. These categories may be derived *inductively, i.e. obtained gradually from the data- or used deductively, either at the beginning or part way through the analysis as a way of approaching the data.* Deductive analysis is less common in qualitative research.

The term *grounded theory* is used to describe the *inductive process* of identifying analytical categories as they emerge from the data (developing hypothesis from the ground or research field upwards rather defining them a priori).

- All the data relevant to each category are identified and examined using a process called *constant comparison*, in which each item is checked or compared with the rest of the data to establish analytical categories. The key point about this process is that it is inclusive; categories are added to reflect as many of the nuances in the data as possible, rather than reducing the data to a few numerical codes.

- Analysing qualitative data is not a simple or quick task. Done properly, it is systematic and rigorous, and therefore labour-intensive and time consuming.
- Good qualitative analysis relies on the skill, vision and integrity of the researcher doing that analysis.

I. Outcome

Quantitative: Quantitative research studies will answer specific research questions by producing statistical evidence to prove a point. While the researcher certainly discusses the findings, there is in common saying that the data, meaning the statistical outcomes, speak for themselves.

Qualitative: The outcome of qualitative research, more often than not, is a lengthy descriptive document, presenting the data in words than rather than numbers. The write-up is rich, textural, anecdotal, and full of thick description in narrative form. The final analysis provides either verifications of an existing theory or new-grounded theory, together with well-formulated research questions that now need to be investigated.

J. Problems

Quantitative:

a. The researcher may have difficulty controlling variables that will affect the study;
b. The study's validity may be called into questions, as some may feel that highly controlled experimental studies have little relevance to real life;
c. Obtrusiveness the investigator and data collection methods may affect the subjects or environment; and
d. The researcher (or readers) may be tempted to rectify the topic variables- that is to regard these abstractions as if they were material things.

Qualitative:

a. The non-standardization of procedures;
b. The difficulty of managing large amounts of data and data reduction methods;
c. The extremely time-consuming nature of the whole process; and

d. The difficulty of using naturalistic methods to study large populations.

K. Other Points

Quantitative:

What does quantitative research involve?

- How often? – How many Xs are there?
- Collects numbers e.g. the X% of pregnant women smoke and X% of people would like to give up.
- Begins with idea/hypotheses
- By deduction allows conclusions to be drawn
- Strength is reliability (repeatability).
- Available data, e.g. official statistics (Census, GHS= general health survey)
- Experiments, e.g. RCT = randomised control trial
- Surveys – Cross sectional (GHS)/ cohort

- most common social research tool
- large number of people can be questioned relatively quickly
- results are easily quantified and analysed
- limited application (simple factual information but not able to extract meanings).

- Reliable: measure consistently. Reliability through standardized tools, focus on measuring patterns of behaviour
- Valid: measure what they are claiming to measure
- Standardise: published questionnaires with established properties of validity and reliability.

Qualitative

What does qualitative research involve?

- What? Why? How?
- Collects words, e.g. "I can't cope with the stress of giving up smoking".
- Generates ideas, hypothesis and future research questions
- Often inductive
- Strength is validity – closeness to the truth. Validity focus on how people behave, what people actually mean when they describe their behaviour/ attitudes.

- Aims to make sense of phenomena in terms of the meanings that people bring to them.
- Develop concepts to help understand social phenomena in a natural setting.
- What stops people giving up smoking?

- Need to listen to what people have to say, understand their perspective.
- Emphasises meaning, experience and views of respondents.

- Able to uncover information which is difficult to get at
- Focus on meaning of individuals' or organizations' behaviour
- Explores respondents' own experience
- Data = rich in detail
- Closer to the respondents' perceived world
- Giving people a voice
- Does not produce quantified answers.

Features that Qualitative and Quantitative Methods Have in Common

Attempt to be 'scientific', by which it is meant that they seek to produce, by an approach that strives very hard to steer clear of sources of error, an understanding of phenomena that is reasonably true and trustworthy.

One of the cardinal features of both approaches is the quest for rigour in method and interpretation, and the consciousness that truth is never absolute but always to challenge, as long as the same standards of scientific rigour are applied.

Corresponding terms describing trust worthiness of quantitative and qualitative research, and all-embracing terms relating to the rigour under pinning all research.

Quantitative Research	**All-embracing Term**	**Qualitative**
Validity	Veracity	Credibility
Reliability	Consistency	Dependability
Objectivity	Neutrality	Conformability
Generalizability	Applicability	Transferability

Thus, corresponding to the concept of reliability there is the concept of dependability, and corresponding to the concept of validity is the concept of credibility. The means

to these ends are also described, and include such techniques as triangulation deriving (data from several perspectives or sources).

It is most important to understand that qualitative and quantitative researches are rather complementary approaches, which when used together, will usually reveal more about the world and how it works than will either used alone. Certain topics lending themselves more naturally to one or other approaches.

The kind of knowledge produced by such different endeavours is different, but neither type is any absolute sense superior or inferior to the other, and in the progress of medicine, as was stressed in the introduction, both types of knowledge are required.

Both approaches use different kinds of data:

- **Primary:** data generated by the researcher
- **Secondary:** sources already available e.g. previous research, documentary evidence.

How does qualitative work complement quantitative research?

'Ground work'

- Interviews, observation => description and understanding
- Help formulate a hypothesis
- Generate questions for a questionnaire
- Check out terms being used for sense.
- Triangulation
- Three or more methods used and results compared for convergence
- Comprehensiveness.

In summary:

- Both approaches now widely used in health services researches.
- Understanding social research methods is important for appraising published research.
- Be wary of artificially dividing qualitative and quantitative research.
- Important to use the right method for the research question.

Exercise 4. 'The Warring Paradigms'

Aim: To consolidate and apply your understanding of the main features of qualitative and quantitative methods.

The Task: You will be given a table showing the features of qualitative and quantitative approaches. This table will be incorrect. It is your task to re-shuffle the answers so that they are in the right places. Individually select the appropriate answer for each of the boxes in the table.

	Logical Positivist, Scientific, Quantitative, Positivism	**Naturalist, Interpretivist, Qualitative**
Aims	Generating hypothesis/ describing	Testing hypothesis/ generalising
Purpose	Discovery	Verification
Approach	Top-down	Bottom-up
Preferred Technique	Quantitative	Qualitative
Research strategy	Un-structured	Structured
Stance	Reductionist/ inferential/ hypothetico-deductive/outcome oriented/rational	Expansionist/exploratory/inductive/process-oriented/intuitive
Method	Observing/ participant observation, interviewing, action research, case studies, focus groups	Counting/ obtrusive and controlled measurement, surveys, experiments, structured observations, statistical records
Implementation of method	Decide in field setting	Decided a priori
Values	Value-free	Value-bound
Instrument	The researcher	Physical device/ pen and paper
Researcher's stance	Outsider	Insider
Relationship of researcher and 'subject'	Close/ interactive and inseparable	Distant/ independent
Setting	Laboratory	Nature
Data	Rich, deep and valid	Hard, reliable and replicable
Data analysis	Specified in advance	Worked out during the study

Analytic units	Patterns and natural events	Pre-defined variables
Quality criterion	Rigour/ proof/ evidence/ statistical significance	Relevance/ plausibility/ illustrativeness/ responsiveness to subjects' experiences
Source of theory	A prior/ confirmation/ rejection	Grounded/ emergent
Nature of truth statements	Only time and context bound working hypothesis are possible	Time and context-free generalizations are possible
Image of reality	Multiple, holistic, dynamic, socially constructed	Singular, tangible, static, external
Research product	Stress the validity of research findings for scholarly community	Stress meaningfulness of research findings to both scholarly and user communities

8. RESEARCHER EFFECTS

The researcher can affect the findings of a qualitative research study in four ways:

A. Program participants behaving differently because of the presence of the researcher. There may be a "halo effect" so that staff perform in an exemplary manner, or there may be so much tension and anxiety that staff perform below par.

B. Investigators becoming personally involved with participants during the study. Should this happen, researchers may lose their sensitivity to the full range of events occurring in the setting.

C. Researcher predispositions or biases. Researcher biases definitely influence data interpretations, particularly because the outcome of a qualitative study is presentation of perspective. Qualitative research is subjective by definition. It contributes to the quality of the observations made by the investigator and allows the investigator to employ the phenomenological approach desirable in most qualitative research.

D. Researcher competence: Competence can be demonstrated by using the verification and validation methods listed earlier to establish the quality of the data analysis; by showing fairness and responsibility in the write-up; and by not going overboard in the interpretations of the findings.

GLOSSARY

Archives ongoing records maintained by institutions within society.

Bias deviation in one direction of the observed value from the true value of the construct being measured (as opposed to random error).

Case a single unit in a study (e.g. a person or setting, such as clinic, hospital).

Case Study a research method, which focuses on the circumstances, dynamics and complexity of a single case, or a small number of cases.

Closed question the question is followed by predetermined response choices into which the respondent's reply is placed.

Coding the assignation of (usually numerical) codes to each category of each variable.

Content analysis the systematic analysis of observations obtained from records, documents and field notes.

Coping the cognitive and behavioural efforts to manage the internal and external demands of the stressful situation.

Ecological studies research where the unit of observation is a group of people rather than an individual (e.g. schools, cities, nations).

Empirical based on observation.

Empiricism a philosophical approach that the only valid form of knowledge is that which is gathered by use of the sense; explanation should be based on actual observations, rather than theoretical statements.

Ethnography the study of people in their natural settings; a descriptive accounts of social life and culture in a defined social system, based on qualitative methods (e.g. detailed observations, unstructured interviews, analysis of documents). This method is used by anthropologists.

Ethnomethodology a method for the study of a cultural group (ethno), and more specifically meaning the methods of the people; the study of how people use social interaction to make sense of situations (to create their 'reality').

Field research, research which takes place in a natural setting.

Focus groups a research method of interviewing people while they are interacting in small groups.

Grounded theory the investigator develops conceptual categories from the data and then makes new observations to develop these categories. Hypotheses are derived directly from the data.

Holistic the phenomenon of interest is viewed in terms of the relationships between each level of the system. Holism identifies the whole of the social system as more than the simple sum of individuals within it. Holism is at the centre of sociological theory.

Hypothesis a tentative solution to a research question, expressed in the form of a prediction about the relationship between the dependent and independent variables.

Hypothetico-deductive method beginning with a theory and, in a deductive way, deriving testable hypothesis from it, the hypothesis are then tested by gathering and analyzing data and the theory is supported or refuted.

Information bias misclassification of, for example, people's responses due to error or bias.

Interpretive approach the theoretical perspective that social scientists must include the meaning that social actors give to events and behaviour; symbolic interactionists and ethnomethodologists hold interpretive perspectives and subscribe to the philosophy of phenomenology.

Interview a research method, which involves a trained interviewer asking questions and recording respondents' replies. Interview questions can be structured (printed on a questionnaire with set question wording and pre-coded response categories), semi-structured (mostly open-ended questions, i.e. with no pre-coded response categories) or unstructured and in-depth (listed topics about which interviewers probe respondents for their views and experiences).

Leading question question phrased in a way, which leads the respondent to believe that a certain reply, is expected.

Naturalistic research descriptive research in natural, unmanipulated, social settings using les obtrusive, qualitative method.

Need includes felt need (want), expressed need (demand), normative need (experts' definitions which can change over time in response to

knowledge) and comparative need (comparisons with others and considerations of equity).

Observation a research method in which the investigator systematically watches listens to and records the phenomenon of interest.

P value P is the symbol of probability associated with the outcome of a test of a null hypothesis (i.e. the probability that an observed inferential statistic occurred by chance, as in $P<0.05$); p (small p) is used for proportions. Statistical tests exist which, in appropriate study designs and samples, can test for the probability of observing the values obtained.

Paradigm a set of ideas (hypothesis) about the phenomena under inquiry.

Paradigm shift this occurs, over time, evidence accumulates which refutes, or is incompatible with, the paradigm, and thus the old paradigm is replaced by the new one.

Participant observation a research method in which the investigator takes part in (i.e. has a 'role' in) the social phenomenon of interest.

Perspective a way of interpreting empirical phenomena.

Phenomenology the philosophical belief that, unlike matter, humans have a consciousness. They interpret and experience the world in terms of meanings and actively construct an individual social reality.

Phenomenological sociology based on the concept of social structure of reality through the social interaction of people (social actors), who use symbols to interpret each other and assign meanings to perceptions and experiences.

Positivism aims to discover laws using quantitative methods and emphasises *positive facts.* It assumes that human behaviour is a reaction to (i.e. determined by) external stimuli and that is possible to observe and measure social phenomena, using the principles of the natural scientist, and to establish a reliable and valid body of knowledge about its operation based on empiricism and the hypothetico-deductive method.

Precision the ability of a measure to detect small changes in an attribute.

Prospective study collection of data over the forward passage of time (future).

Qualitative research social research, which carried, out in the field (natural settings) and analysed largely in non-statistical ways.

Quantitative research the measurement and analysis of observations in a numerical way.

Random error the errors in the study (usually from the sampling) randomly vary and sum to zero over enough cases; random error results in an estimate being *equally* likely to be above or below the true value.

Random sampling this gives each of the units in the target population a calculable and non-zero probability of being selected.

Randomisation assignment at random of people to experimental and control groups in experiments.

Reactive (Hawthorne) effect a guinea pig effect (awareness of being studied). If people feel they are being tested they may feel the need to create a good impression, or if the study stimulates new interest in the topic under investigation then the results will be distorted.

Relativism no single system of knowledge or beliefs (or 'social facts') exists; it is dependent on context (i.e. culture).

Reliability the extent to which the measure is consistent and minimises random error (its repeatability).

Research design this refers to the strategy of the research - how the sampling is conducted, whether a descriptive or experimental design is selected, whether control groups are needed, what variables need to be operationalised and measured, what analysis will be conducted.

Research methods, or techniques these are methods of data collection – interview, telephone, postal surveys, diaries and analysis of documents, observational methods and so on. They are also the instruments to be used.

Responsiveness a measure of the association between the *change* in the observed score and the change in the true value of the construct.

Sample a subset of a population.

Sampling techniques used to obtain a subset of a population without the expense of conducting a census (gathering of information from *all* members of a population).

Sampling distribution the distribution of means of all possible different samples of ***n*** observations that can be obtained from this population. It has a mean

equal to the population mean. It is a normal distribution (assuming the sample size is large enough).

Sampling error any sample is just one of an almost infinite number that might have been selected, all of which can produce slightly different estimates. Sampling error is the probability that any one sample is not completely representative of the population from which it was drawn.

Sampling frame a list of the sampling units from which the sample can be drawn.

Selection bias bias in the sample obtained.

Sensitivity ability of the actual gradations in the scale's scores to reflect these changes adequately; probability of correctly identified affected person ('case').

Sensitivity analysis a method for making plausible assumptions about the margins of errors in the results, and assessing whether they affect the implications of the results. The margins of error can be calculated using the confidence intervals of the results or they can be guessed.

Simple random sample a probability sampling method that gives each sampling unit an equal chance of being selected in the sample.

Social stratification the structured inequalities that exist between social groups owing to the unequal and systematic distribution of rewards and resources.

Specificity a measure of the probability of correctly identifying a non-affected person (i.e. 'non-case') with the measure.

Standard deviation this is the most common measure of dispersion. It is based on the difference of values from the mean value (the spread of individuals results round a mean value); it is the square root of the arithmetic mean of the squared deviations from the mean.

Standard error this a measure of the uncertainty in a sample statistic; the standard deviation of the sampling distribution is called the standard error. It is related to the population variation. The standard error of a mean is the standard deviation of the population divided by the square root of the sample size.

Statistical significance significance at the 0.05 per cent level means that five times in 100 the results could have occurred by chance, i.e. if the test was

performed 100 times, on five occasions significant results will occur by chance.

Stigma the social reaction which leads to a spoilt identity and application of the label of deviant society.

Survey a method of collecting information from a sample of the population of interest (known as a sample survey).

Systematic error the errors in the study result in an estimate being more likely to be *either* above or below the true value, depending upon the nature of the systematic error in any particular case.

Systematic research the process of research should be based on an agreed set of rules and processes which are rigorously adhered to, and against which the research can be evaluated.

Systematic review of the literature review prepared with a systematic approach to minimising biases and random errors, and including components on materials and methods.

Systematic random sampling a sample in which every ***kth*** case is selected from the population (***n***) (with a random starting point).

Theory a set of logically interrelated propositions and their implications.

Triangulation the use of three or more different research methods (i.e. multiple methods) to investigate the phenomenon of interest.

Type I error (or alpha error) the error of rejecting a true null hypothesis.

Type II error (or beta error) the failure of reject (i.e. acceptance of) a null hypothesis when it is actually false.

Validity, external the extent to which the research findings can be generalised to the wider population of interest and applied to different settings.

Validity, internal the extent to which the instrument is really measuring what it purports to measure.

Variable an indicator assumed to represent the underlying construct or concept, produced by the operationalisation of the latter.

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ANNEX

ANNEX I. CHOOSING QUALITATIVE DESIGNS

Choose one of the following qualitative designs:

1. **Ethnography –** You wish to study a group and its culture; you are able to go into the field; you will gather data via observation, interviews, and examination of documents; you will be able to select key informants and key events.
2. **The Case Method Research Design –** You wish to study one unit (person, situation, group setting); you have access to that unit; you will gather data via observation, interviews, videotaping, and examining documents; you will analyze the unit in its environmental context.
3. **The Historical Research Design –** You wish to study a past event or person in order to better understand the present; you have access to adequate primary sources; you are able to the principles of causality, generalization and argumentation.
4. **Unstructured Interviews –** You have limited experience with qualitative research and limited time to conduct your study; you wish to address sensitive issues; you have access to key informants.

After you have selected the design for your study, answer the following question:

1. Do you have access to an appropriate site for the study?
   Name the site:
   How will you gain permission to enter the site?
2. Are there appropriate participants for your study?
   List the criteria for participants who would be appropriate for your study:
   How many people will you be able to choose from?
   How will you gain their permission to be participants?
3. Data Collection:
   Can you enter the field often enough to gather data?
   How often do you calculate that will be?
   What data collection techniques will you use?
   A. Observation: Which people, interactions, or behaviours do you wish to observe?

B. Interviews: Which participants do you wish to interview

   Outline the topics you wish to gain information or opinions about

C. Audiotape recording (do you have equipment?)

   Videotape recording (do you have equipment?)

   Do you need separate permission for this activity?

   If yes, how will you get that permission?

   Which events, interactions, or behaviours do you wish to record

D. Artefact Review: What kinds of documents or objects will you need to examine?

   Where will you locate such artefacts?

E. Client Record Review: Do you need separate permission for this activity?

   If yes, how will you get that permission?

   Which client records will you need to review? What are the selection criteria?

   How many records will you need?

ANNEX II- FORMAT FOR THESIS ON QUALITATIVE RESEARCH

Title Page

Abstract

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Annex IV- A

'Parenting and Disability: The Role of Informal and Formal Support Networks'

Parker, Gillian Mary

Abstract

This study will identify the support, which disabled parents need to enable them to continue parenting successfully when impairment disrupts their parental activity. Stage one will survey 100 disabled parents and their families to explore their experiences around the time of onset; the impact this had on parenting; the role of health and social care services and informal networks; the impact of impairment on family life and relationships; impact on the children; the ways in which household tasks are allocated between family members; the extent to which and reasons why children may have become involved in additional household duties and 'caring' activity; how responsibility of parenting and parental activity id allocated within the family; and basic socio-demographic data. 'Looking after children' materials will be adapted for use with the children of disabled parents. Stage two will be 12 in-depth, longitudinal case studies of recently disabled parents and their children's experiences during the first twelve months of disablement. As in the first stage the emphasis will be on the roles of formal and informal structures in supporting (or not) parenting activity and children through this period.

Purpose of the proposed study

This study will identify the support, which disabled parents need to enable them to continue parenting successfully when impairment disrupts their parental activity. It will explore the difficulties disabled people experiences as parents, the type of supports they find most effective, and the best ways in which both formal and informal support systems can continue to successful parenting. The4 study thus addresses issues under topic one and topic three of the programme.

Background

The principles of Children Act are that intervention with families should promote parental independence and responsibility, and be withdrawn once parents are in a position to parent (Aldgate et al, 1994). However, recent research and policy debates on the issue of 'young carers' has emphasised assessing the child's needs separately, providing services to replace a 'lost childhood', and training young carers to make their role more bearable (Cohen, 1995). The sentiment underpinning services for young carers thus involves substituting rather than enabling the parental role. We have made a critique of this focus on the support needs of the child 'as a carer' (Parker and Olsen, 1995a), arguing instead that research should focus on why some children of disabled parents become over-involved in caring activity in the first place. A recent 'Chief Inspector' letter has, similarly, stressed that social service assessment in situations of this sort should identify both parents' and children's needs.

A crucial distinction which research on both disability and 'child carers' usually fails to make is between parenting – 'the concern that parents have for their child's welfare in all its various manifestations – and parental activity – the things that parents do as parents (Parker 1993, p.99). There is little to suggest that disability affects parents' desire or ability to *parent*; however, in the absence of adequate support, disability may affect parents' parental activity. This lack of support can lead to children being taken into care or non-disabled partners being given custody after divorce (Morris, 1989). Prejudice from both professionals and the population at large may deny disabled parents their right to parent.

Existing research

The research literature on parenting and disability is fragmented. In particular, it has been characterized by the dominance of a medical model of disability (focusing on the illness or impairment as the source of the problem rather than the need for support) and has therefore asked a limited range of questions about the relationship between parental disability and children. Furthermore, its emphasis has been on pathologising the parenting of disabled people and measuring outcomes for children in largely psychological and psych-social terms.

It is not surprising that researchers in different areas of enquiry have asked different kinds of questions in assessing disability and parenting. One body of research has principally been interested in finding out whether children of mentally ill parents are

more likely to suffer mental health problems themselves (Rutter, 1996 and 1981; Rutter and Madge 1976; Rytter et al, 1976; Cytryn et al, 1984). Whilst finding some associations between parental and child mental illness, this literature has very rarely to unpack the role of poverty, unemployment, poor housing, institutionalisation, and so on, in the development of problems in children.

Research into learning disability has focused more on IQ and parenting skills in the early years of child's life (for a review see Andron and Tymchuk, 1987). The research of Booth and Booth (1994a) has exposed the different standards by which parents with learning difficulties are judged and how the lack of support at critical stages can make parenting much more stressful and difficult. They, and other authors (for example, Dowdney and Skuse, 1993), also criticise intelligence indicators as tools for analysing parenting skills, arguing that they are static measurements of 'intelligence', which do not allow for skill development and learning. As with research into mental illness and parenting, the evidence in this are is equivocal, with other mediating factors paying important roles in the relationship between parental and child IQ.

Studies of physical disability have focused on particular conditions, such as multiple sclerosis (for a review, see Roy, 1990). Multiple sclerosis is of particular interest for research into young carers, given the profile of MS sufferers, and the likelihood that the illness will progress at a time when parents are likely to have grown children (Segal and Simkins, 1993). Whilst with mental illness and learning disabilities the focus has been on the appearance of similar 'problems' in the children, with physical disability, questions have been asked regarding the ability of parents of discipline children, behavioural problems in the children, the risk of accident and injury to children (LeClere and Kowaleski, 1994), and role-model and self-esteem issues in young children who gain competencies over their parents abnormally early in their development (Greer, 1985).

The literature on disability and parenting has therefore asked different questions in relation to different illnesses and impairment and, whilst this is a natural result of focusing on the individual and their illness rather than on support, it has prevented most researchers from looking at the broader factors which structure the experience of disability and parenting. Disabled parents have been judged by different standards to

their non-disabled peers (George, 1994), and have been given less chance to prove their parenting ability (Booth and Booth, 1994b, p. 164). There is often little attempt to consider the impact of social class and poverty on disabled parents, and insufficient weight is given to the effects of services) or lack of them) on parenting.

In addition, the focus in this literature has tended to be on measures of children's psychological adjustment to illness and disability in the family. Attention has not focused on the likelihood of children either doing too much by way of domestic and other tasks, or of doing things that are age-inappropriate. By contrast, however, the last few years have been a tremendous growth of interest, comment and prescription regarding 'young carers' – children 'caring' for ill or disabled relatives (Aldridge and Becker, 1993a, and 1993b; Mahon and Higgins, 1995). This has been accompanied by a similar growth in embryonic services for 'young carers', with many authorities now providing some kind of child-centred service (befriending, activities, sign-posting and so on). We, as well as other authors, have made a sustained critique of both the empirical and political bases to this growth in services aimed at making caring more acceptable for children of disabled and ill parents. (Olson, 1996; Parker and Olson, 1995a and 1995b; Keith and Morris, 1995).

Our empirical concerns can be grouped into two themes.

1. We are interested in the reasons why some disabled parents become dependent on their children for support and others do not. We are therefore interested primarily in the formal and informal support that prevents parenting breakdown in these situations. In line with our argument that policy priorities which focus on how to support families out of dependence should take precedence over those which seek to make the 'caring' activities more bearable for the child (for instance, in providing training in lifting or money management (Cohen, 1995), the central aim of the research will be to investigate the factors which lead some families into these situations. The research evidence is largely anecdotal in this regard. Two particular issues stand out as worthy of particular attention, however.

First, household composition may be extremely important. Research suggests that in situations where a single parent becomes ill or disabled, the absence of another adults is likely to increase the chances of children taking on 'caring' responsibilities (Aldridge and Becker, 1993a). This may also be the case in two-parent families where the non-disabled parent is metaphorically 'absent' and elects one or other children to

carry out the support tasks. Clearly, the influence of household composition will intersect with gender directly. We might hypothetically expect that in two-parent families with a disabled father, mothers would be more willing to provide assistance than if the disabled parent is the mother. Household composition is thus one of the key analytic variables in the proposed research.

Secondly, the literature has emphasised the radically different 'caring' agenda that children with mentally ill parents may have (Clements, 1995; Mapp, 1994). Whereas 'care' for physically disabled parents has been characterised as essentially task-based (shopping, cleaning, carrying, and so on), it has been in more emotional and psychological terms by those looking at 'young carers' of mentally ill parents. Whilst physical impairment has no bearing on the quality of parenting) love, support, guidance, and so on), mental illness, by its nature, may well involve periods where parenting is poor. It is therefore important to search for formal and informal support mechanisms, which are particularly appropriate for parents with mental health problems.

2. Our second empirical concern is the extent to which children labelled as 'young carers' differ in their experiences from their peers, and from other children in situations (for instance, large families) which might engender large domestic responsibilities. These questions from the basis of a large-scale, nationally representative survey of children's caring and other work, short listed under the ESRC *Children 5-16 Research Programme: Growing into the Twenty-First Century*. However, in research proposed here, we would like to tackle the problem of understanding outcomes for children in families with ill and/or disabled parents. We aim to do this by modifying the Looking After Children schedules, developed as a tool for analysing outcomes for children in social work (Ward, 1995). These instruments, covering health, education, identity, family and social relationships, social presentation, emotional and behavioural development and self-care, attempt to set agreed standards as to what is best for children, and what desirable goals are in child health and development. They provide some valid and reliable measures of outcomes for children and will contribute to answering the questions, 'How do 'young' carers' differ from their peers?'.

Research which takes a family approach towards the support needs of disabled parents, and explores what enables them to go on being parents and prevents dependence on their children for assistance and care, is urgently needed. This team is well placed to do such research.

Plan of Study

Design and Method

Stage I

This stage will be a retrospective, descriptive survey of around 100 households containing a disabled parent and one or more dependent children aged seven or over. Methods will be largely interview-based and will include suitability-adapted versions of the 'Looking After Children' instruments.

Sampling frame

No wholly adequate sampling frames for younger disabled adults exist. Local authority registers of disabled people vary considerably both in their range and coverage. The sample for stage 1 will thus be opportunistic, recruited in the East Midlands via voluntary organizations, newsletters, GP surgeries, contact with hospital clinics and through advertisement. We will develop existing contacts with local organizations of and for disabled people to publicise the research, and inserts in organizations' newsletters will invite people to identify themselves as possible participants. Articles in local newsletters will invite people to identify themselves as possible participants. Articles in local newspapers and 'free sheets' and items on local radio will raise awareness of the research. Local contacts with day centres for people with minimal mental health problems will also be used to recruit participants. 'Snowballing' techniques – asking people who have already agreed to participate in the research if they know of anyone else in a similar position who might be willing it take part will also be used.

Sample size and construction

We propose to identify a sample of around 100 disabled adults with at least one child over the age of seven. Given the likely size of the population of younger disabled people with children, and the absence of adequate sampling frames, we feel that a

sample 100 is achievable without extending the project timetable to unreasonable lengths. Choice of children aged 7 and over is driven by our wish to include children' own perspective on the situation and, therefore, the need to feel confident that they will be able to give a reasoned account. This does not, of course, preclude the possibility that there will be children under the age of seven in the families we visit.

The sample will be stratified to ensure roughly equal numbers of people from single and dual parent households and with mental health problems and physical impairments, Beyond this we will try to achieve a spread of key characteristics such as more or less recent onset and ethnicity, as well families who feel that they have coped more and less well. We will also include people who have become disabled since becoming parents as well as those who have become parents while disabled. Clearly, with a sample of 100 there are limits on the extent of the analysis, which is possible. By constructing the sample in this way we will have sufficient numbers to *analyse* the statistical importance of the two main variables of interest (single vs dual parenthood and physical impairments vs mental health problems) while also being able to *describe* other aspects of parents' experiences.

Pre-pilot work

A small group of families (around 10) will be recruited initially and interviewed in-depth. The first visit will involve a conversation with the family as a whole the issues that they see as important in relation to disability and parenting. The materiel from these interviews will be tape-recorded and used to influence the structure and content of interview schedules for the main element of stage 1. It is possible that we will not cover the children's perspective sufficiently using this approach. If this proves to be the case, we will ask parents for their permission to talk to children separately.

Pilot and main interviews

Using insights generated from the pre-pilot work, interview schedules will be developed for use with the parent(s), any significant other adults in the household, and all children over the age of seven.

The content of the interview schedules will be determined after pre-pilot work but is likely to cover: experiences around the time of onset and the impact that this had on

parenting and parental activity; the role of health and social care services and informal networks in helping family members to cope; the impact of the onset of impairment on family life and relationships; impact on the children initially and subsequently; the ways in which households tasks are allocated between family members; the extent to which and reasons why children may have become involved in additional household duties and 'caring' activity; how responsibility for parenting and parental activity is allocated within the family; and basic socio-economic information.

Schedules for children will vary slightly according to their age and, as with those for the adults, the content will be determined after the pre-pilot work. Clearly, at least part of what we can cover will depend on whether or not the children were born before or after their parent was disabled and, if the latter, if they remember much about that time. It seems likely that the interviews will work best if they focus on the present and children's perceptions of their and their parents' current circumstances.

Outcomes for children (health status, education, social activity and so on) will be explored by using suitable adapted versions of the 'Looking After Children' materials for the appropriate age groups. Whilst the schedules give a guide to the sorts of age-appropriate tasks and responsibilities that children should have learned, they do not enable us to identify a) situations where a child may have learned a desirable task (for instance 'to cook simple meals') but may be doing that task an unreasonable number of times and b) situation where a child has responsibilities for tasks (for instance undertaking simple electrical repairs, undertaking first aid) earlier in life than is reasonable. Given that one of the current anxieties about the children of disabled parents is that they become involved in certain activities 'too soon' or too much, we plan to modify the schedules to explore this issue. We will examine how to use parts of the 110-15 and 16+ schedules with children below those ages.

The interview schedules and the adapted 'Looking After Children' materials will piloted on the families used for the pre-pilot work and revised in the light of that experience and the families' reactions to the interviews.

Interviews with 100 disabled parents, any of their children aged 7 to 18 living at home, and any other 'significant' adults in the households will then be carried out. At

this stage, parents and children will be interviewed separately. Wherever possible, parents will be interviewed first, followed by the children, on a single visit to the household. However, in some cases it may not be possible to carry out all the interviews on a single visit, either because of time constraints (for example, if the interviews are carried out in the evening) or because it is not easy to assemble all the relevant participants at the same time. Provision for more than one visit per household has thus been made both in the timetable and the fieldwork budget.

All interviews will be carried out by research associates and appoint a woman to his post so that parents and children get the opportunity to choose the sex of the person who interviews the child (ren), if they wish. This issue may be particularly important in relation to parents and children from minority ethnic communities.

Stage 2

The design of this stage will be in-depth, longitudinal case studies of 12 families where a parent has recently become disabled. Methods will be predominantly qualitative. This is appropriate in an area where knowledge is limited and where the topics are both complex and potentially sensitive.

Sample

Twelve disabled parents will be identified soon after initial onset or diagnosis. We plan to work with local clinicians in the three Leicester acute hospitals to identify these adults via hospital clinics and wards. Previous research by one of the proposers (Seymour and Parker, 1994) used this method of sample generation successfully.

We will recruit parents with serious mental health problems, four with trauma-related impairments, and four with deteriorating or fluctuating conditions such as rheumatoid arthritis or multiple sclerosis. This will allow us to compare and contrast experiences across a number of axes: sudden versus gradual onset; stable versus fluctuating conditions; mental versus physical impairment.

Interviews

Disabled parents (and their partners, if they have one) will be interviewed as soon as is feasible after identification. We would aim to achieve this within a month where at

all possible although previous experience (Seymour and Parker, 1994) suggests that this may not be possible for people with serious or fluctuating conditions. This first interview, which will be in-depth, will cover the immediate impact of disability and the support needs it has generated, particularly in relation to parenting. The roles of formal and informal support will be explored in detail.

Where there are two parents, the couple will be interviewed briefly together and then separately, but simultaneously. This a pattern used successfully by one of the researchers in previous work with couples (Parker, 1993), which ensures that partners do not worry excessively about what the other is saying. It also allows the parents to express views and feelings that they feel might distress the other.

Participants will be interviewed at home whenever this possible. We anticipate there may be occasions where this is not possible; for example people may have to wait many months for home adaptations, or in some cases, move to a completely new home because their previous one is totally unsuitable for their new way of life. In these circumstances we will arrange to interview the disabled parent in as private a setting as possible within the hospital.

We do not propose to interview children at this stage for ethical reasons. Anxiety about their parent's condition and the future is likely to be high at this point and we do not consider it appropriate, or methodologically sound, to interview children in such circumstances.

Follow up interviews three months and nine months later will review the current position. Interviews with the parents will use critical incident techniques to identify significant events, which have occurred since the first interview and explore how these were coped with. We will identify events of any sort, including the 'normal' events that families go through but which may prove particularly challenging where a parent is disabled, for example, illness of either parent, admission to hospital, a child's move from one school to another, moving house, death or illness of grandparents or other significant adults, change in employment, change in formal support arrangements and so on. As in the first stage, the emphasis will be on the roles of formal and informal structures in supporting (or not) parenting activity and the

children through these changes. As before, parents in dual parent families will be interviewed separately but at the same time, after a brief joint interview.

At the follow up stage, separate interviews with children over the age of 7 will explore their perceptions of the impact of their parents' impairment and the effect that this has had, if any, on the family. Although we will cover their involvement in domestic or caring activities, and any changes that their parents' condition had had on this, we would expect the children's own perceptions of what has been significant to guide the interviews. We will also cover, where possible, the significant events identified by the parents and explore with the children any impact that they feel these have had on their involvement in domestic or caring activities. The adapted 'Looking After Children' instruments used in stage 1 will be used with the children in stage 2 at the follow-up interviews.

As in the first stage, it may not be possible to achieve all the interviews in a family on one occasion and the timetable and resources requested reflect this. Similarly, we will offer the parents and children the choice of interviewer for the work with the children.

We will also interview selected other adults identified as providing significant support to the parents and children. Participates will be asked to identify those individuals from both the formal and the informal sector whom they feel have been most helpful, particularly in relation to parenting issues. Grandparents or siblings of the disabled adult, for example, may play important roles in helping the family to cope. Similarly, social workers, GPs, head teachers or teachers may have proved supportive. Where this is the case we will seek the disabled parents' permission to approach these people for interview. Again, the approach will be qualitative and will explore the individual's perspective of their role in supporting the family, whether they felt that others might more appropriately have provided support, how long they feel the family will need the support currently being provided and any other issues that emerge from the interviews with the disabled parents (and their partners).

Analysis

The stage 1 survey is predominantly descriptive. However, where appropriate, material will be analyzed quantitatively to explore the contribution of our two main

analytic variables (single vs dual parents, mental illness vs physical impairment). Bivariate analysis will use the chi-squared statistic, which is appropriate for categorical data that are not necessarily normally distributed. Where possible, logistic techniques will be used to explore the relative contributions of different.

Commentary: Generalisability and validity in **qualitative research**

Judith Green, *senior lecturer in sociology*.

Gardner and **Chapple**'s **study** illustrates both the valuable **in**sights that can be derived from qualitative work and the difficulties of demonstrat**in**g the credibility of such f**in**d**in**gs **in** medical journals. This **study** "sensitises" practitioners **to** possible **barriers to referral**, such as fear of hospitals and fatalism about the **in**evitability of morbidity **with** age**in**g. It also rem**in**ds us that **in** the real world symp**to**ms are experienced and accounted for **in** consultations not as diseases **with text**book clarity but as facets of a more diffuse illness experience. Rather than identify**in**g the exact proportion of a population **with** particular health beliefs, qualitative research can unearth beliefs that may be hidden **in** less respondent centred **study** designs or **within** a busy consultation **with** a doc**to**r.

Such **in**sights, however, can also be derived from novels, patient anecdotes, or journalism, which cl**in**icians have always used **to in**form their communication **with patients**, alongside evidence from research studies. It is the purported credibility of f**in**d**in**gs that sets qualitative research apart from these other non-research sources: it makes claims, however implicitly, **to** be**in**g valid and **to** hav**in**g some generalisability beyond the particular situation or sett**in**g described.

Set aga**in**st the conventions of good research design, a **study** carried out by a s**in**gle general practitioner on **patients** from his or her own practice **in** one site surely raises legitimate questions about objectivity and generalisability. **To** what extent are the **barriers** reported here an artefact of the **in**terviewer-**in**terviewee relationship—for **in**stance, what **patients** thought the general practitioner wanted **to** hear? **To** what extent is fear of hospitals rooted **in** local myths, which have no relevance **in** other parts of the country? How far can we really conclude from this evidence that cultural

gaps between deprived populations and their healthcare providers really contribute to the "health divide" without a comparative group of more affluent patients?

In qualitative research, issues of validity and generalisability are essentially the same as those in quantitative studies—establishing the truth of accounts (in that they represent some reality outside the research itself) and adding to theory (in that the findings are applicable to a population or setting wider than that of the study). Attention to questions of reliability is essential.[1] In interview studies, this involves careful transcription, thorough and systematic coding, and a justification for data extracts chosen for illustration—for instance on grounds of representativeness. In addition, credibility in the findings and conclusions drawn depends on information about context. This includes information about the prompts used to generate data and the research setting, both of which can have a significant impact on the content of accounts given by participants,[2] and the theoretical framework used to make sense of the data. Data extracts taken out of context tell us little about the situated nature of beliefs and behaviour, and inferences that are not rooted in a theoretical understanding are unlikely to be generalizable to other settings. Most important is evidence that the researchers have explicitly sought to falsify emergent hypotheses, for instance by theoretical sampling and accounting for deviant cases within their dataset.[3]

The use of a single site or a small sample size does not in itself threaten the validity or potential generalisability of a qualitative study. Although there is not enough space in a short paper to ground the findings in a broader literature or to discuss how deviant cases were handled, the authors have used comparative material to strengthen the credibility of their findings, and the second author was involved in the analysis providing some analytical distance on the data. The generalisability of this study does not derive from the representativeness of the sample, but from the concepts (such as fear of hospitals or fatalism about ageing) that may well be relevant to other settings andpatientgroups.

References

1. Silverman D. The quality of qualitative health research: the open ended interview and its alternatives. *Soc Sci Health* 1998; 4: 104-118.

2. Green J, Hart L. The impact of context on data. In: Barbour R, Kitzinger J, eds. *Developing focus group research.* London: Sage, 1999.
3. Green J. Grounded theory and the constant comparative method. (Commentary.) *BMJ* 1998; 316: 1064-1065[Medline].

ANNEX V. EXERCISES' CORRECT ANSWERS

Exercise 3 (for questions on page 30)

1.Children's experiences of asthma clinics.

Two issues have to be cleared before answering, i.e.

a/ The age range of children

b/ Are the children asthmatic cases?

After clearing the above issues, you may take:

- Focus group discussion and semi-structured interview could be used if the children are teenagers (14-16 years old).
- Observation may not be practical, but may be appropriate if they are under aged.
- Adults (parents) can be interviewed.

2.Women's experiences of undergoing cervical smear tests.

This is a sensitive issue; hence, it needs good approach.

- Interview (in-depth and semi-structured interview) may be the chose.
- Focus group discussion can be done but the sensitivity may matter.
- Observation cannot be performed due to the sensitivity of the test.

3. Multiple sclerosis patients difficulties of accessing dental health services.

The severity of the disease may not allow you to perform the study.

- Interview (in-depth interview) may be chosen.
- Difficult to organize focus group discussions.
- Inaccessible to perform observational study.

4. GPs perceptions and experiences of providing care for refugees and asylum seekers.

- Interview (in-depth and semi-structured interview) can be done but the problem is time.

- Focus group discussion can be performed but if they are practicing at that moment may limit the finding.
- Observation may not be important.

N.B. 1.Consider consent, should not be forgotten

2. Political, cultural and other sensitive issues have to be addr

	Logical Positivist, Scientific, Quantitative, Positivism	**Naturalist, Interpretivist, Qualitative**
Aims	Testing hypothesis/ generalising	Generating hypothesis/ describing
Purpose	Verification	Discovery
Approach	Top-down	Bottom-up
Preferred Technique	Quantitative	Qualitative
Research strategy	Structured	Un-structured
Stance	Reductionist/ inferential/ hypothetico-deductive/outcome oriented/rational	Expansionist/exploratory/inductive/process-oriented/intuitive
Method	Counting/ obtrusive and controlled measurement, surveys, experiments, structured observations, statistical records	Observing/ participant observation, interviewing, action research, case studies, focus groups
Implementation of method	Decide a priori	Decided in field setting
Values	Value-free	Value-bound
Instrument	Physical device/ pen and paper	The researcher
Researcher's stance	Outsider	Insider
Relationship of researcher and 'subject'	Distant/ independent	Close/ interactive and inseparable
Setting	Laboratory	Nature
Data	Hard, reliable and replicable	Rich, deep and valid
Data analysis	Specified in advance	Worked out during the study
Analytic units	Pre-defined variables	Patterns and natural events
Quality criterion	Rigour/ proof/ evidence/ statistical significance	Relevance/ plausibility/ illustrativeness/ responsiveness to subjects' experiences
Source of theory	A prior/ confirmation/ rejection	Grounded/ emergent
Nature of truth statements	Time and context-free generalisations are possible	Only time and context bound working hypothesis are possible
Image of reality	Singular, tangible, static, external	Multiple, holistic, dynamic, socially constructed
Research product	Stress the validity of research findings for scholarly community	Stress meaningfulness of research findings to both scholarly and user communities