Nelson Mandela Metropolitan University
for tomorrow

DRUG UTILIZATION RESEARCH UNIT
NAVORSINGSEENHEID VIR GENEESMIDDELGEBRUIK
DURU

# QUALITATIVE RESEARCH:
# Challenges in Drug Utilisation Research

**27 July 2015**

MEDICINES UTILISATION RESEARCH IN AFRICA GROUP
MURIA

**DR BC KNOESEN**

## WORKSHOP OBJECTIVES

- **Exploring/overview of quantitative and qualitative methodologies applied in drug utilisation research (DUR)**
- **Discussing qualitative research methods:**
  - overview of qualitative methods
  - developing questions for focus groups
  - mock focus group


## WORKSHOP OUTLINE

**Background of presenter**

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**Establishing ground rules of workshop**

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**Objective one**

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**Objective two**

## BACKGROUND OF PRESENTER

**Hobbies**

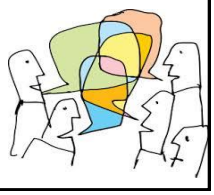
- Addicted to movies
- Macro photography
- Coffee science: busy mastering cold coffee brewing

**Education**

- 1999: National Diploma: Pharmaceutical Marketing
- 2005: B.Pharm
- 2007: M.Pharm
- 2015: PhD – in Pharmacy Practice

**Research interest**

- Qualitative research within Pharmacy Practice (on topics such as pharmaceutical advertising and pharmacist-client interaction)
- Drug abuse research from a qualitative perspective
- Qualitative research within a DUR context



## GROUND RULES

- You are encouraged to participate and ask questions whenever needed – however, when one person has the floor, others need to respect him/her
- Success of the workshop is based on group participation as well as participation of each group member
- Respect towards each other
- All cellphones to be switched off
- Have an open mind to qualitative research

## DRUG UTILISATION STUDIES

**Distribution, marketing, prescription, use and dispensing of medicines in a society - specific emphasis placed on social, medical and economic consequences.**

ATC/DDD

## DRUG UTILISATION METHODOLOGIES

**2 Main methodologies:**

- Quantitative **(mostly used and accepted)**
  - majority of DUR studies fall into this methodology
  - Types of studies, for example:
    - ❑ To quantify the current state of drug usage
    - ❑ Drug use cost
    - ❑ Drug use trends
    - ❑ Time course of drug usage at various levels

- **Qualitative**

| | |
|---|---|
| **BRAINSTORM 1 (5 min)** | In small groups, discuss:<br>• What is qualitative research?<br>• What is involved in qualitative research? |

**Definition of qualitative research**

- **Can be defined by 4 characteristics:**
  - ❑ **Purpose:** understanding the meaning of individuals' experiences
  - ❑ **Primary instrument:** data collected and analysed by the researcher himself/herself
  - ❑ **Inductive process:** researchers use qualitative studies to gather evidence to develop theories & hypotheses
  - ❑ **Product:** descriptive data (words or pictures); not numbers

**What is qualitative research?**

- It is an inquiry process in which the researcher:
  - explores one key concept
  - asks his/her participants general, broad questions
  - obtain participants' views in words/images
  - conducts analysis and codes data for themes
  - themes used to describe participants' views
  - interprets meaning by focusing on personal reflection & past research

## Qualitative versus quantitative

| Qualitative | Quantitative |
|---|---|
| Multiple realities | Single reality |
| Reality is social & contextual | Reality is objective & context-free |
| Holistic | Reductionistic |
| Inductive reasoning | Deductive & inductive reasoning |
| Discovery of meaning → basis of knowledge | Basis of knowledge → cause & effect relationships |
| Develops theory | Tests theory |

## Qualitative versus quantitative (continued)

| Qualitative | Quantitative |
|---|---|
| Meaning of concepts | Measurement of variables |
| Process orientated | Outcome orientated |
| Basic element of analysis = words | Basic element of analysis = numbers |
| Unique | Generalisation |
| Trustworthiness of findings | Control of error |

## Commonly used traditions/types of qualitative research

| | |
|---|---|
| **Basic qualitative research** | • To understand individuals' meanings of their experiences<br>• Collect data by document analysis/ observations/interviews /focus groups |
| **Ethnography** | • Study of culture & society<br>• Researcher forms part of culture/society |
| **Phenomenology** | • Studying conscious experiences of people in their "life-world" |
| **Grounded Theory** | • Builds theories based on changes occurring over time with a certain phenomena |

## When should qualitative research be used?

**Use qualitative research when the research question involves:**

- Exploring peoples' experiences or views of something
- Exploring "new areas" where its issues are not understood or identified → for e.g., before development of items for questionnaire surveys
- Assessing if a new service can be implemented
- Focusing on the context of something
- Sensitive topics in which flexibility will reduce distress
- Questions that cannot be answered by measuring or counting something

## Most common methods in basic qualitative research

- **Focus groups**

- **Interviews**
  - ❑ Similar procedure as in focus groups
  - ❑ Types: Informal, open-ended, guide approach, closed-fixed response, telephonic

## Focus groups

- The term 'focus group' was coined in 1956 (Lewis, 1995)
- A focus group was then seen as an activity where an interviewer or facilitator asks participants specific questions about topic
- Qualitative data collection procedure which consists of a planned group discussion of a main topic of interest
- Aim is to obtain diverse ideas & perceptions of the topic; aim is not to achieve consensus
- Conducted in a relaxed environment to foster participation

## Advantages and disadvantages of focus groups

**Advantages**

- Generates rich information quickly
- Information comes directly from people who have insight
- Provides diverse opinions & ideas
- Relatively low cost & efficient

**Disadvantages**

- Susceptible to facilitator bias
- Few vocal individuals can dominate discussion
- Limited generalisability to larger populations

**Activities necessary to conduct focus groups**

**Three phases to conduct focus groups:**

- **Phase 1:** Conceptualisation
- **Phase 2:** Group discussion
- **Phase 3:** Analysing and reporting

**Phase 1: Conceptualisation**

- Purpose
- Whom to study
- Planning

**Purpose & whom to study**

- What do you want to achieve with the focus group? Type of information?
- From whom can you get this information?
- Ties in with the aim and objectives of the study

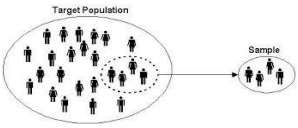
**Planning**

- All the physical administrative activities to plan before the focus group can be conducted:
  - ❑ **Venue** to conduct focus group
  - ❑ **Transport** of participants
  - ❑ **Invitation:** Preamble & Consent form
  - ❑ Will food be served?
  - ❑ Obtaining a **facilitator** to lead the focus group
  - ❑ **Budget**
  - ❑ 2 **voice recorders**


**Phase 2: Group discussion**

- Participant selection
- Development of questions
- Skills required by facilitator

**Participant selection**




- What type of people do you want to invite to participate?
- **Sampling:** *random* vs *convenience* vs *purposive* vs *stratified*, etc.
- **Sample size:** usually 6 – 12 participants

## Development of questions

- Need to develop a **focus group protocol**
- **Protocol**:
  - ❑ detailed plans written down to ensure order during focus groups
  - ❑ consists of steps (introduction & conclusion) tasks, questions and/or prompts
- **Probes and clarifying questions**
  - ❑ ensures that participants will give more than just one sentence answers
  - ❑ assists in more detailed information on the topic

- **Do's & don'ts of asking questions/prompts:**
  - ❑ keep participants talking
  - ❑ listen and do not finish participants' thoughts
  - ❑ see things from the participants' perspectives
  - ❑ participants should be viewed as experts
  - ❑ do not make assumptions, ask simple questions
  - ❑ do not ask leading questions, for e.g., "Don't you think…"

| **GROUP ACTIVITY 1 (10 minutes)** | • Groups will be provided with topics each consisting of specific aims and objectives<br>• Each group must develop a set of 5 questions relating to this topic. |
|---|---|

## Skills required by facilitator

- Ability to lead a group and be comfortable
- "*Think on their feet*"
- Make participants feel comfortable and at ease; open to talk
- Ability to "*draw information out of people*"
- Advisable to use psychologists / psychology post-graduate students

**Phase 3: Analysing and reporting**

- Analysis of discussion
- Reporting of data

## Analysis of the discussion & recording of data

- Discussion recorded by means of voice recorder (preferably 2)
- Researcher need to listen to recorded data at least twice within a 24 hour period
- Capture recorded data verbatim (word for word, including sounds made)
- Conduct thematic analysis based on Tesch's technique of descriptive analysis
- Descriptive statements used to discuss the findings - quoting excerpts from the raw data.

**GROUP ACTIVITY 2 (10-15 min)**

- Each group to swop their topic, aim, objectives and 5 questions developed in Group activity 1 with another group
- Conduct a mock focus group
- Explain the new topic to your group
- Decide on a facilitator who will ask the questions.

## Rigour in thematic analysis

- General principles to which qualitative research have to adhere to.
- "good practices guidelines"
- Will add credibility, reliability, and validity to the focus group results
- *Green and Thorogood* or *Lincoln and Guba's* criteria


## Ethical considerations

- **Confidentiality**: No names of participants may be published; any names in recordings must be written as a 'code reference'.
- Inform participants that focus group is **voluntary** and that they can **withdraw at any moment**
- Inform participants beforehand about **voice recorders**
- Invite by means of a **preamble** & **consent form must be signed** by each before focus group (**also verbal**)
- Humans involved – requires **ethical clearance** from REC-H

## QUALITATIVE RESEARCH IN DUR

- **Types of DUR studies:**
  - ❑ appropriateness of drug utilisation
  - ❑ prescription data linked with drug indications
- **Uses of qualitative studies in DUR:**
  - ❑ study the appropriateness of drug usage in terms of its indications, dosage & duration
  - ❑ assess the clinical efficacy of drugs
  - ❑ can assist in understanding barriers to using evidence based medicine, and its limitations in informing decisions about treatment

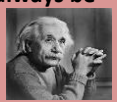
**Other advantages of qualitative research**

- Effective in mixed method methodologies → qualitative & quantitative methods
- Focus groups → themes identified can be used to develop questions/statements to conduct unique surveys, for example, consumer surveys and health professional surveys

## CONCLUSION

- Need to give DUR a "human perspective"
- Qualitative methods such as focus groups and interviews should be encouraged in drug utilisation

**"Everything that can be counted does not always count; everything that counts cannot always be counted."**



**Albert Einstein**

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