Drug and Therapeutics Committee
Training Course

Session 8.
Understanding the Problems Associated with Medicine Use—Qualitative Methods

Trainer’s Guide
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Developed in Collaboration with the
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ABBREVIATIONS AND ACRONYMS

DDD       defined daily dose
DTC       Drug and Therapeutics Committee
DUE       drug use evaluation
FGD       focus group discussion
mg        milligram
VA        visual aid
VEN       vital, essential, nonessential
WHO       World Health Organization
SESSION 8. UNDERSTANDING THE PROBLEMS ASSOCIATED WITH MEDICINE USE—QUALITATIVE METHODS

Purpose and Content

Session 8 is intended to provide information on how members of the Drug and Therapeutics Committee (DTC) can investigate the underlying reasons for medicine use problems in their health systems. The discussion covers four qualitative methods used to understand and document how factors such as knowledge, economic incentives, or attitudes and beliefs affect medicine use.

Reviewing the consequences of inappropriate medicine use emphasizes the need to investigate the reasons for health provider-patient behavior. The following examples illustrate how varied inappropriate medicine use can be—

- Prescribing too many medicines for a patient
- Prescribing the incorrect dose or wrong medicine
- Use of antibiotics for patients with viral infections
- Overuse of narcotics for patients with minor pain
- Prescribing medicines when none is needed

Once a medicine use problem has been identified, the DTC must develop a plan, including interventions, to resolve or improve the specific problem. Before planning an intervention, however, DTC members should first understand the reasons for the behavior behind the problem. The DTC can use the methods discussed in this session to identify the causes underlying the problem behavior and then recommend the most appropriate interventions.

Objectives

After attending this session, participants will be able to—

- Identify four qualitative methods to investigate medicine use and prescribing behavior
- Understand the use of the qualitative methods to identify why documented medicine use problems occur
- Design a simple qualitative instrument to investigate medicine use

Outline

- Introduction
- Key Definitions
- Applying Qualitative Methods to Medicine Use Studies
- Description of Qualitative Methods
  - Focus Group Discussions
• In-depth Interviews
• Structured Observations
• Questionnaires

Activities

Summary

Preparation and Materials

• Read the Trainer’s Guide and the Participants’ Guide, and review the visual aids (VAs)

• Instruct participants to read the Participants’ Guide the evening before the session presentation

Further Readings


Visual Aid Listing

1. Title slide
2. Objectives
3. Outline
4. Introduction (1)
5. Introduction (2)
6. Applying Qualitative Methods (1)
7. Applying Qualitative Methods (2)
8. Some Factors Influencing Medicine Use
9. Focus Group Discussions (1)
10. Focus Group Discussions (2)
11. Focus Group Discussions (3)
12. In-depth Interview (1)
13. In-depth Interview (2)
14. Structured Observation (1)
15. Structured Observation (2)
16. Structured Observation (3)
17. Structured Questionnaire (1)
18. Structured Questionnaire (2)
19. Structured Questionnaire (3)
Organization of the Session

Total time: 4 hours

Session 8 is designed to give the participants an overview of qualitative investigation and what is involved. It cannot give them the skills of a social scientist, but it can give them an appreciation of the skills needed (many participants might be unaware of all that is involved). The practical activities, in particular, are designed to give them sufficient skills for measuring the indicators of patient care such as observing the consultation to learn how long the consultation time was, or interviewing exiting patients to find out if they know their dosing schedules.

First Component: 10 minutes
VAs 1–8: Introduction

Introduce the session by reviewing the need for investigating the causes of irrational medicine use. Without knowing the causes of certain behaviors, one cannot design interventions to change them. VAs 6–7 give some examples of how qualitative investigation has been used to explain the reasons for medicine use problems that have been identified in quantitative studies. Brainstorm with the participants the different reasons for irrational use and then summarize them using VA8.

Before proceeding to the next section, ask who has experience with the various qualitative methods. Knowing this will help you adapt the level of detail needed in the rest of the presentation before the activities.

For each component on the different methods, discuss the content of the VAs even though it is not specifically mentioned in the section on the components (below).

Second Component: 15 minutes
VAs 9–11: Focus Group Discussions

Ask any participants who have conducted focus group discussions (FGDs) to share with the class what they did and what the difficulties were. Explain that FGDs can elicit a range of ideas, but that they cannot be used for providing quantitative data. Emphasize the need for a skilled moderator who can involve all participants but can keep the discussion focused.

Third Component: 15 minutes
VAs 12–13: In-depth Interviews

Ask any participants who have conducted in-depth interviews to share with the class what they did and what the difficulties were. Explain that this method allows the investigator to explore a subject in detail and learn relevant, subtle detail that may not previously have been expected.
Once again a skilled interviewer—one who understands the medicine use problem and the questions that need to be answered—must be used. An unskilled interviewer will not gather any unexpected information.

**Fourth Component: 15 minutes**

*VAs 14–16: Structured Observations*

Ask any participants who have conducted structured observations to share with the class what they did and what the difficulties were. Explain that this method allows the investigator to observe actual behavior as opposed to stated behavior, which is often different. Discuss the “Hawthorne” effect, in which people change their behaviors when they are observed, and how this effect can be minimized through silent, nonthreatening observation in a quiet corner.

**Fifth Component: 15 minutes**

*VAs 17–19: Questionnaires*

Ask any participants who have used structured questionnaires to share with the class what they did and what the difficulties were. Explain that this method allows the quantification of ideas and motives but that great skill is needed to design questionnaires that are clear and easily understood. Unclear questionnaires often result in biased or incorrect information being collected.

**Sixth Component: 160 minutes**

*VAs 20–21: Activities*

These activities require a facilitator experienced in qualitative methods. The activities are as described in the review of the Participants’ Guide in this document.

**Activity 1. Deciding what questions to ask when using qualitative methods to determine the reasons for excessive antibiotic use in your hospital (60 minutes)**

*Instructions to the participants for activity 1*

The first step to developing qualitative instruments is to decide what questions you need to ask of which people to determine why a particular medicine use problem is occurring. For this activity, assume your hospital has very high antibiotic use level, and you want to investigate this through—

- Exiting patient interviews
- Observation of the consultation
- In-depth interviews with the prescriber

Using these three methods, discuss in your groups what questions you need to answer to determine the motivations underlying the problem of high antibiotic use. You may use indirect
questions and observation as well as direct questions depending on the type of instrument. After discussing in your group, you will be asked to present your findings.

*Notes for the facilitator for activity 1*

Explain that the participants at each table represent a DTC of a hospital where antibiotic consumption is high. When explaining the activity, emphasize that the different methods will examine the behavior of different target groups (patients, prescribers, patient-prescriber interaction) and that they may use indirect questions and observation as well as direct questions depending on the type of instrument. Remind them that all questions should be designed to answer the basic question of why antibiotic use is high. After discussing in the group, use a plenary session to brainstorm the questions that could be answered.

During the plenary session, constantly ask the participants whether the questions they want to ask are really going to tell them something about the reasons for excessive antibiotic use. It is useful to write on a flipchart the questions suggested for each method. If this activity is done well, it greatly helps the participants with activity 2, since they will be slightly more familiar with what questions and observations are useful and which are not.

Allow 30 minutes for group work and 30 minutes plenary discussion.

**Activity 2. Designing a qualitative instrument to investigate why antibiotic use is so high in a district hospital**

**(100 minutes)**

*Instructions to the participants for activity 2*

For this activity, assume that not only is antibiotic consumption in your hospital high, but also according to a recent prescription audit, it is often inappropriate. Each group will develop one qualitative instrument to investigate the reasons underlying this antibiotic overuse. These instruments include—

- In-depth interview with prescribers
- Structured interviews with exiting patients
- Structured observation of the consultation

Each group will prepare a role-play based on the instrument. During preparation, each group will construct their instrument on two transparent sheets for the overhead projector using capital letters of sufficient size to be seen from the farthest point of the classroom. During the role play, one group member will show the transparencies of the instrument on the overhead projector and another group member will play the role of investigator (i.e., interviewer or observer). The other roles will be played by participants selected randomly from other groups by the facilitator. The transparencies will allow other members of the class to judge your instrument more effectively.
During each role-play, everyone will need to determine the following—

- Was the instrument clear and useful?
- Did the instrument detect an underlying motive for the excessive antibiotic use?

Notes for the facilitator for activity 2

During the group work, set up an area, with chairs and microphones, to conduct the role-plays so all participants may clearly see and hear what is going on and at the same see the instrument on the overhead projector. Usually, time allows for only three role-plays, one for each method. Therefore, randomly select one group to perform the role-play and show its instrument. After the role-play, another group that prepared the same instrument may be asked to comment. For each role-play, ask for volunteers to play the non-investigator roles, and allow someone from the group that prepared the instrument to play the investigator role (i.e., interviewer, observer).

During the role play, note whether the instrument was clear and useful and whether it detected any underlying motive. After getting comments from the participants, summarize what was learned about the behavior, if anything. At the end of all three role plays, ask the groups what they learned about the reasons for high levels of antibiotic use in the hospital. Triangulation of the findings from the different methods should be discussed and overall conclusions drawn.

Allow 60 minutes to prepare the instrument, 5 minutes per role-play, and 5 minutes for discussion of each role play (i.e., 30 minutes total for three role-plays), and 10 minutes to discuss the overall findings and triangulation of the results.

Activity 3 (Optional). Preparing interview questions for prescribers (Optional and if time allows—approximately 30 minutes required)

Instructions to the participants for optional activity 3

Develop a questionnaire to evaluate the use of antibiotics in a health care facility. In developing the questionnaire, participants should consider the following sample elements of study design because they may impact the appropriateness of the questions and how respondents comprehend the meaning of the questions.

- Prescriber target groups—one group or several groups, such as physicians, nurses, or others
- Health facilities—all hospitals, specialty hospitals, outpatient departments, primary health care clinics, others
- Geographic location of facilities
- General education and training levels of prescriber target groups
- Age groups of children

- All antibiotics prescribed for the specific health problems in children

**Notes for the facilitator for optional activity 3**

Instruct the participants to word the actual interview questions to ensure that data will be collected on *which* antibiotics the prescriber normally orders for the specified health problems by age group studied and also *why* the prescriber orders the antibiotics he or she does (e.g., standard or approved treatment, no time to review modern practices in the literature, or laboratory tests such as antibiotic sensitivity not available). See a sample interview questionnaire in annex 1. One group will be selected to interview another group using its prepared questionnaire. This role-play exercise will be useful to determine the kinds of information and problems that actually arise out of a questionnaire and interview.

**Seventh Component: 10 minutes**  
**VA 22: Summary**

Summarize the key points. See annex 2 for additional summary items.
Annex 1. Sample Interview Questionnaire for Prescribers

1. Introduction of interviewer

2. Purpose of interview

   I know that treatment of children in our health facilities often involves prescription of antibiotics. The Drug and Therapeutics Committee is interested in knowing more about the types of antibiotics prescribed and your views about antibiotic use.

3. Respondent’s background

   What is your position in this clinic?
   Your educational background?
   Other training?
   What is your age?

4. Clinical experience

   On an average day, how many children do you treat?
   What are the most prevalent health problems of children you treat in this clinic?

5. For each type of infection you encounter in children, please explain how you treat them.

   Medicines prescribed
   Instructions to mother
   Care in clinic
   Care at home
   Other

6. When treating a child at the clinic, what factors determine whether you give an antibiotic?

   Your personal experience
   Your knowledge of peer practices
   Mothers’ expectations
   Knowledge of standard treatment guidelines for the health facility
   Use of an essential medicines list or formulary
   Results of laboratory tests

7. Where do you get medicine information to make the decision to prescribe medicines?

   None available in clinic
   Professional journals
   Clinic treatment guidelines
   Professional training in school
   Continuing education classes (What is the frequency of these classes?)
8. Closing remarks

I appreciate your time and willingness to respond to the questions. Do you have anything you would like to add to what we discussed? Are there related topics that were not covered and for which you would like to provide some information?

Thank you
## Annex 2. Four Qualitative Methods to Understand Reasons for Medicine Use Behavior

<table>
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<tr>
<th>Method</th>
<th>Characteristics</th>
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| Focus group discussion        | - Less than a two-hour discussion  
                                | - Moderator leads discussion  
                                | - Respondents have similar characteristics such as age, gender, social status  
                                | - Discussion topics are predefined  
                                | - Informal, relaxed ambience  
                                | - Reveals beliefs, opinions, and motives                                    |
| In-depth interviews           | - One-on-one extended interview  
                                | - Questions are predetermined and open-ended  
                                | - Often covers up to 30 topics  
                                | - Reveals beliefs, attitudes, and knowledge                                  |
| Structured observation        | - Data collection instrument is structured  
                                | - Observers are trained to blend into their surroundings  
                                | - Observers are trained to record what they actually see  
                                | - Useful for recording provider-patient interactions  
                                | - Assesses actual behavior                                                  |
| Questionnaires                | - Questions are standardized with a fixed set of responses or options  
                                | - Respondents are selected to represent the larger population  
                                | - Useful for a large sample of respondents  
                                | - Measures the frequency of attitudes, beliefs, and knowledge               |