15.3: Commonly used methods in social research

Qualitative research methods commonly used in field trials of health interventions include direct observation, interviews with key informants, focus group discussions, and participatory methods. These relatively open-ended techniques are suitable for exploring how an intervention might be perceived, the priorities of different members of the community, and ways that people view a trial from the perspective of potential participants. These methods are used to provide information relevant to devising intervention components, such as communication strategies, as well as devising trial methods, for example, to ensure recruitment and designing effective and appropriate data collection instruments.

The aim of qualitative research is to understand the perspectives of specific groups of individuals. In doing this, researchers are attempting to learn about the social worlds in which others live: their experiences with specific issues, their points of reference around particular topics, and broader factors that shape these, from local to global, historical, and political economic factors. When studying the world from a social perspective, it is recognized that what people say and do is contingent on the scenario in which words are being spoken and the action taken. Qualitative research attempts to make sense of, or interpret, phenomena in terms of the meanings people bring to them, and qualitative research practice recognizes the role of the researcher in bringing out these meanings. Key concerns in qualitative research are therefore how best to interpret perspectives of others and how to integrate into analyses the subjective nature of this interpretation. Both of these issues are relevant in research to guide intervention development, as well as to evaluate trial outcomes.

When considering methods to interpret others’ perspectives, most qualitative research embraces the following four concepts: explorative flexibility, iteration, triangulation, and contextualization. Although the researcher has specific topics to be explored, it is assumed that new questions will emerge frequently, as the research progresses. Specific techniques and associated data collection methods are refined and modified throughout the research process. A flexible approach is adopted whereby unanticipated findings are explored, as new lines of inquiry develop, unproductive forms of data collection are dropped, and new methods developed, without losing sight of the original research objectives. There is an
emphasis on in-depth investigation. The same or different key informants and other respondents may be interviewed repeatedly, with each new interview building upon the previous one with increasing refinement and focus. This iterative process applies not only to specific methods, but also to the qualitative research process as a whole. Multiple fieldwork strategies may be employed, including one-to-one conversation, as in key informant interviewing, group discussions, and direct observations of actual behaviour. The use of multiple methods in conjunction, or triangulation, adds depth to an inquiry of the phenomenon in question. Rather than being a strategy for validation, triangulation adds richness and breadth, enabling a more rigorous exploration of the complexity of a phenomenon, through its multiple representations. Qualitative research may be used to help researchers understand the social, cultural, historic, political, and economic context within which an intervention trial will be conducted. Such contextualization is particularly valuable during the initial planning phases and also to help understand unexpected trial findings.

When considering how to integrate the subjective nature of interpretation into analyses, the concept of reflexivity is crucial to qualitative research. This requires that the researcher explicitly acknowledges his or her motivations and theoretical positions in relation to a piece of research and makes an effort to reflect and articulate these in decisions made in fieldwork and interpretations. For example, if a researcher feels alignment with ideals of market-led provision of health care, this may affect the way in which they ask questions and interpret responses, which can impact the shape of an intervention developed and the way a trial outcome is interpreted. Being reflexive about political, economic, and theoretical agendas underlying one’s own motives for, or implementation of, the research can allow greater transparency, as well as the opportunity to challenge and reconsider these perspectives. Methods for attaining a reflexive stance include keeping reflexive diaries and field-notes and discussing decisions reflexively as a team. This approach has been proposed to be extended beyond qualitative activities to trial conduct in general to promote transparency and encourage more realistic accounts of trial contexts that are often in flux, allowing anticipation of barriers to recruitment and potential sources of bias which can be addressed in trial activities or analyses (Wells et al., 2012).

We have outlined some of the principal qualitative social science research methods. More detailed descriptions of the main qualitative research methods are given by Kielmann et al. (2011) and Bryman (2012). Chandler et al. (2013b) have also produced a compilation of guidance for carrying out qualitative research in the context of health interventions and provide a parallel protocol template document which includes example topic guides and standard operating procedures (SOPs) and a set of training materials for field teams (<www.actconsortium.org/resourc...2/qualitative-methods-for-international-health-intervention-research>).

### 3.1 Direct observation

Direct observation includes both unstructured and structured observations. These methods are useful for learning about the everyday context relevant to an intervention. Spending an extended time observing these enables the researcher to appreciate the factors that may be relevant to an intervention, in relation to other priorities in the community and activities and concerns of the group of interest. This may be important for both the development of appropriate interventions and in the interpretation of trial outcomes.

#### 3.1.1 Unstructured observation

Unstructured observation is the cornerstone of ethnography, the classical methodology of anthropology. Ethnographers
often undertake *participant observation* when they endeavor to become a functioning member of a community and engage in local activities, watching carefully what others do and how they react to the ethnographer’s own behaviour. The purpose is to attempt to view the community from the perspective of a participating member, rather than as an outsider. In many situations, *non-participant observation* is more feasible and can allow for a more systematic description of activities, in which the observer is not directly part of the activity under study. Non- participant observations may concentrate on an individual (for example, a pregnant woman), location (such as the kitchen or a water collection site), or event (for example, a wedding party or a market). The observer attempts to record as much behaviour as possible, including actions, conversations, description of the physical locale, and other relevant features. Focused observations often require some preliminary examination of the activity or location to prepare the observer. For example, the investigator may have a general impression of the interior of a rural house but may not know the kind and quantity of cooking utensils, nor how they are washed or stored. Some research questions require detailed observations on how a procedure is actually carried out. For example, how a mother mixes water with rehydration salts at home for the treatment of diarrhoea or how a health worker interacts with a client and/or carries out a medical procedure. Such observations may be used in the design of questionnaires and to confirm or refine data collected through interviews.

Unstructured observational activities are often carried out together with informal and formal interviews and group discussions. Observations and reviews of discussions are typically recorded in detailed field-notes, following the activity. Analysis is ongoing, often involving a daily review and reflection on occurrences and the way they have been interpreted by the ethnographer. Unstructured observation can be useful at all stages of the research relating to a trial, for example, in understanding how guidelines are used in practice by health workers, in preparation for, or the evaluation of, an intervention to improve clinical practice relating to a particular guideline such as treatment with anti-malarial drugs or antibiotics. The rate-limiting step is often the availability of trained researchers to carry out such activities and ongoing analyses.

### 3.1.2 Structured observation

Structured observations involve the recording of behaviours or the outcomes of behaviors by trained observers, through the use of a pre-coded or partly coded data collection instrument. Structured observation methods can be used for continuous monitoring or for spot checks on a behaviour. These approaches are used when the behaviours that are to be studied in detail have been identified (possibly through unstructured observation), and it is clear what information is needed (for example, time of day, frequency, duration, and types of behaviour).

The researcher observes, as unobtrusively as possible, occurrences of events or behaviors. A dilemma faced by every observer is where to focus attention and what details to record. The data collection instruments are designed to help focus the re- searcher’s attention on matters of greatest relevance to the research question. Predetermined structure limits discovery but assures relevance and consistency. The complexity of structured observation instruments varies. Some studies focus on detailed description of one or two events of interest, breaking them into fine units of activities, noting who performs them where, with what tools, and for how long, as was done in a study of hand-washing practices in Bangladesh reported by Stanton and Clemens (1987). Structured observations can form part of larger ethnographic studies, which has the advantage that the findings can be interpreted in the wider social context, enabling a more careful interpretation to feed into behaviour change interventions. For example, Chandler et al. (2008) conducted an ethnographic study of health workers’ treatment of malaria, incorporating structured observations of clinical consultations within a wider study of the over-diagnosis of malaria in Tanzania, informing the design of interventions tested in a 3-arm
cluster randomized trial. Unlike most methods described in this chapter, structured observation may yield data amenable to statistical analysis. This holds potential for repeated observations to monitor behaviour change over time.

### 3.2 In-depth interviews

In-depth interviews usually aim to get a comprehensive understanding of a participant’s perspective, in their own words, of the issues under study. Such interviews may take a narrative approach whereby the interviewer aims to hear the ‘story’ of the participant in a historical perspective, probing for more detail on areas of interest to the research, for example, access to maternal health care services. In-depth interviews may also be used to explore individuals’ ideas and concepts about particular issues, with the interviewer asking questions relating to specific topics identified as being of interest to the research objective. In both cases, a topic guide or list of questions may be used, as an aide-memoire, and may include specific questions that have been pilot-tested. The objective is to use this guide to explore the experiences and perspectives of each respondent, as they feel able and willing to explain themselves. Thinking of relevant and useful probing questions is an important skill for the interviewer who must bear in mind the research objective, while engaging with, and pursuing, trains of thought of respondents. They must be able to use new pieces of information to take the interview in previously unplanned, but relevant, directions. A further key skill in interviewing is the ability to create rapport and ensure confidentiality, such that the respondent feels comfortable and confident in expressing their views and experiences.

In-depth interviews take significant time to set up, carry out, transcribe (and translate), and interpret. This means they can usually only be conducted with a few carefully selected individuals. Depending on the objectives of the study, respondents for in-depth interviews may be ‘key informants’ or individuals selected as representing particular characteristics of interest (for example, mothers who have lost a child, migrants). Key informants, in the context of intervention trials, tend to be of three types: administrators/community leaders or other persons in positions of power, community-based health workers, and individuals in the community with specialized areas of expertise or experience (for example, traditional birth attendants, traditional healers). Key informants are identified through casual inquiry of formal and informal leaders and other pivotal community members, or through more systematic methods such as consensus analysis or social network analysis (Bernard and Ryan, 2010). Informants become ‘key’, because they are more knowledgeable, co-operative, and accessible than other respondents and often are interviewed on multiple occasions. They serve to inform the investigator about selected aspects of the culture and customs of a community and may be used to provide information throughout the course of the study.

### 3.3 Focus group discussions

Focus group discussions are a useful method for getting to know shared values and points of reference. Focus groups can also be a good opportunity to generate and test out initial ideas for an intervention, with the ability for group members to offer, modify, or reject ideas for introducing changes relevant to a particular health problem.

In a focus group discussion, a small group of participants (usually six to 12), under the guidance of a facilitator, are encouraged to talk about topics which are thought to be of special importance to the respondents and to the investigation. Topic guides are utilized by the facilitator to stimulate discussions around areas of interest. Participants are selected from specific target groups whose ideas and experiences are germane to the study. Participants in a focus
group are best chosen to avoid power differentials that could lead to some individuals dominating the discussion. Generally, participants are of the same sex and age group, but similarity in other characteristics may be important, depending upon the research question. For example, in the case of an evaluation of a trial to improve maternal health services, participants may include those who took up the intervention and those who did not, but they should not also include the health workers (whether from the formal or informal sector) who provide such services. It is important, but difficult, to ensure that participants are comfortable with one another, which may mean a natural grouping, such as a village microfinance group of women which may or may not be desirable as a sampling unit, depending upon the research question and the potential for divulgence of confidential information during the discussion.

For discussions to be productive, the facilitator must have skills in understanding and encouraging positive group dynamics and must be able to keep in mind the research objectives, in order to steer the discussion to maximize time spent on matters that may be relevant to the research question. In addition to the facilitator, it is useful to have an observer who makes notes and is alert for non-verbal cues. This observer may also collect demographic data from participants and ensure they receive refreshments. If possible, a focus group discussion should be tape-recorded and later transcribed in full. However, if it is thought that this would unduly inhibit open discussion, detailed notes should be taken by the observer as close to verbatim as possible.

The number of focus groups held will depend on the number of different relevant groups in the community of interest. Focus group sessions usually last for at least an hour and continue until the facilitator considers that all the participants have expressed their opinions adequately on the topics under investigation. Transcribing and translating focus group discussions can take a considerable amount of time, with transcripts typically running to 50–100 pages. Coding and analysis of such transcripts takes a correspondingly long time. To make the most of this method, it is therefore important to think carefully about sampling, the topics for discussion, and the facilitator’s level of experience and familiarity with the research questions.

### 3.4 Participatory research

Participatory research methods aim to enable change at a local level through a process of sequential reflection and action carried out with and by local people. This is distinct from the other methods outlined in this chapter, which, in a general sense, can be considered to be carried out ‘on people.’ In participatory research, the focus is on basing research and planning on local knowledge and perspectives, situating power more evenly between researchers and the researched. In their purest form, participatory, or ‘action’, research approaches do not start out with a specific intervention in mind but aim to respond to local priorities and needs, and aim to empower local bodies to define and develop their own interventions. This is done through a series of facilitated discussions, workshops, planning sessions, and activities. In health research, a number of trials have adopted a form of this approach, by providing a structure within which local actors can define their priorities and intervention methods. An example is the Health Workers for Change programme, a series of six workshops which aimed to address the interpersonal component of quality of care by enabling participants to explore provider-client relations within a gender-sensitive context. This programme was implemented and evaluated in four country contexts, in each of which the intervention played out differently guided by the local participants, and was found to allow difficult issues to be discussed openly, fostered problem solving, and helped health workers to develop practical plans to address problems that could strengthen district health systems (Fonn et al., 2001).