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CHAPTER 8

Focus Groups as Qualitative Research

What is a focus group?

A focus group in nursing research involves a number of people – often with common experiences or characteristics – who are interviewed by a researcher (moderator, or facilitator) for the purpose of eliciting ideas, thoughts and perceptions about a specific topic or certain issues linked to an area of interest.

In the past, researchers have employed focus group techniques in the area of marketing and business research, but in the last decades they have become popular in social science and the caring professions. The ideas generated are normally analysed by qualitative methods, although focus groups can result in quantitative or multi-method research; for instance, they may generate findings to be used in the construction of a questionnaire, or employed as a way to obtain in-depth data at the end of a survey. The type of group and the number of interviews are determined by the research question. There is broad agreement between researchers in the definition of focus groups (see table by Freeman, 2006: 493). Researchers might use pre-existing groups whose members have the same experience – for instance a carer group of people with similar conditions or a support group – or they can establish their own group for which members are carefully and purposefully selected to achieve the functions of the particular type of research. Although focus group research can stand alone, focus group interviews are often just one source of data within a specific qualitative approach. Webb and Kevern (2001), however, discuss their incompatibility with phenomenology and grounded theory although they can be usefully employed in the latter if the character of grounded theory (GT) and the strategy of theoretical sampling are preserved.

The origin and purpose of focus groups

The first text on focus groups was written by Merton and Kendall (1946), as a result of these writers working with groups during and shortly after the Second

World War. In 1956 they expanded their knowledge into a book (Merton *et al.*, 1956). Business and market researchers had used this type of in-depth group interview since the 1920s. It became especially popular in market research in order to gather information about customers' thoughts and feelings about a product, though initially this type of research was not rooted in the qualitative tradition.

Today the focus group interview is used by a wide variety of researchers in the area of communications, policy, marketing and advertising. Focus groups in the social sciences and health professions have become fashionable since the growth of qualitative research methods in the 1980s. This approach does not rely merely on the ideas of the researcher and a single participant; instead, the members of the group generate new questions and answers through verbal interaction. Through these group interviews, researchers are able to discover the needs and feelings of their clients, the perceptions and attitudes of their colleagues, and they can examine the thoughts of decision makers. The cultural values and beliefs of people can also be explored this way.

Focus groups produce thoughts and opinions about a topic relevant to health care, treatment evaluation and illness experiences. Many examples are reported in nursing and social science journals.

Examples of focus groups

Research with two focus groups of nursing students was conducted in the UK by Pearcey and Elliot (2004) whose aim was the exploration of reasons for not wishing to enter a nursing career. The sample came from both second- and third-year students. Facilitator and researchers interviewed for 90 minutes taking into account each member's perceptions of the clinical experience.

In Australia five focus groups were interviewed over two hours by the same facilitator. The aim of the study was to investigate the view of nurses and doctors to incident reporting in order to improve the situation. One group each consisted of consultants, registrars, senior nurses, junior nurses and resident medical officers, a purposive sample from public hospitals. Both semi-structured and open-ended questions were used to stimulate talk between group members. The barriers to incident reporting were established.

(Kingston *et al.*, 2004)

Focus groups are characterised by interaction between the participants from which researchers discover how people think and feel about particular issues. It is not the intention to examine a wide variety of issues in one study; these groups are set up to explore a specific issue rather than general topics which are more often investigated in marketing or political focus groups.

Example

Norton (2008), a health education specialist, examined the sun-related behaviour of young adolescent women. She set up focus groups with students from a secondary school and a youth club, asking questions which were specifically related to behaviour in the sun.

Focus group members respond to the interviewer and to each other. The questions might start with eliciting knowledge about a specific condition, the use of a drug, a method of intervention, or by putting the members at ease but should soon go on to a discussion of feelings or thoughts. Different reactions stimulate debate about the topic because group members respond to each other. Discussions in groups might help not only in the development of ideas about problems and questions which researchers have not thought about before but also by finding answers to some of these questions and solutions to problems.

In nursing and other healthcare arenas, focus groups are used to

- explore patients' experiences of their condition, treatment and interaction with health professionals;
- evaluate programmes and treatment;
- gaining understanding of health professionals' roles and identities;
- examine the perception and efficacy of professional education;
- obtain perspectives on public health issues.

These are just some of the functions of focus group interviewing. The ultimate goal for the researcher is to understand the reality of the participants, and not to make decisions about a specific issue or problem, although future actions may be based on the findings of the focus group interviews. Focus groups differ from individual interviews in that they depend on the stimulus that participants gain from each other, and that they discuss both unique and shared perceptions and experiences. Focus groups can be used as a single source of interview data or in conjunction with one-to-one interviews.

Sample size and composition

The sample is linked closely to the research topic. The people who are interviewed in a focus group usually have similar roles or experiences. They may be colleagues who share the same speciality, use the same technical equipment or nursing procedures or patients who suffer from the same condition. The purpose of the focus group generally determines its composition and size. Morgan (1998b) claims that a small group is better for controversial or complex topics, while

larger groups tend to have lower levels of involvement with less highly intense topic areas. We have also found that in smaller groups individuals can be heard more clearly, though groups with larger numbers of participants might generate more ideas.

Morgan (1998a) suggests that well-defined criteria are needed for this selection. These might include demographic factors, gender, ethnic group membership and specific experiences or conditions. Participants in focus groups will have had common experiences, have the same condition or receive the same treatment. For instance, if a doctor wishes to interview a group of people with diabetes, she or he obviously involves individuals with this condition in the focus groups. A midwife might obtain the feelings and thoughts of pregnant women or new mothers by small focus groups. Colleagues who are interviewed generally share common interests, work in similar settings or perform similar tasks. If the interviewer wants the thoughts of colleagues from a psychiatric setting, for example, then the sample has to be composed of nurses with psychiatric experience. Students too can be interviewed in focus groups about perspectives on their education. Health promotion often is a topic for research.

The choice of the members of focus groups depends on a condition or experiences that potential participants have in common. Although group members share these, it does not mean that they all have the same views, or that they come from the same background or organisation. It might be useful to recruit members from naturally occurring groups such as antenatal classes, patient support groups or carers. While they have similar experiences, they are nevertheless heterogeneous in other ways, and so could illuminate the topic from all sides.

The number of focus groups depends on the needs of the researcher and the demands of the topic area. For one research project, the usual number is about three or four, but the actual number depends on the complexity of the research topic. If the sample of participants is heterogeneous, more groups are needed.

Examples

Pearcey and Elliott (2004) worked only two focus groups with nursing students, while Kingston *et al.* (2004) included five groups of doctors and nurses.

A study of the understanding of childhood asthma by mothers from three different ethnic groups had nine focus groups (Cane *et al.*, 2001).

Studies with large focus groups and many informants are more difficult. Group sessions can last from one to three hours. We must stress, however, that three-hour interviews with patients would be far too long and demanding. In market research, participants are paid for their time and effort but not usually in healthcare research, because this would coerce the informants and squander resources. Much new information is gained in initial groups as the researcher can follow up the ideas obtained in subsequent interviews. As in other

qualitative research, important themes emerge often at an early stage, although some serendipitous results might be found in a later phase.

Each group might contain between four and twelve people, but six is probably the optimum number as it is large enough to provide a variety of perspectives and small enough not to become disorderly or fragmented. Indeed, one of our colleagues found that in her experience, even a group of six was too large and that the optimum number of members in the group was three, but the number could of course vary depending on the topic or the background of group members. Greenbaum (1998), a market researcher, however, claims that group dynamics work better if the group is not too small. The larger the group, however, the more difficult the transcription becomes. When several people start talking together and the group is lively and noisy, it can be difficult to distinguish voices.

There may well be a difference between groups who come together for market research purposes and those who gather for health research. The former will feel much less vulnerable because the area of discussion is rarely threatening or sensitive. The nature of the topic area is of importance: focus groups in which sensitive topics are discussed are more difficult to facilitate.

Members of the group, although sharing common experiences, do not have to know each other. In a group of immediate colleagues or friends, private thoughts or ideas might not be revealed, although occasionally the opposite could be true. One individual is more likely to dominate others and the past history of the group may inhibit or lead individuals in a particular direction. In healthcare research, familiarity between participants, or participants and researchers could be useful because the 'warm-up' time – the time where informants get to know each other to facilitate interaction – is shorter, and the researcher can focus on the topic immediately. Stewart and Shamdasani (2007), for instance, believe that compatibility among group members is more productive than conflict or polarisation, although this too depends on the topic; sometimes conflict can generate new and different ideas.

Gender and age of the group members affect the quality and level of interaction and through this the data. For instance, evidence shows greater diversity of ideas in single sex groups than in those of mixed gender according to Stewart and Shamdasani. Mixed gender groups tend to be more conforming because of the social interaction between males and females; both groups sometimes tend to 'perform' for each other.

Conducting focus group interviews

Focus group interviews must be planned carefully. The informants are contacted well in advance of the interviews and reminded a few days before they start. As in other types of inquiry, ethical and access issues are considered. The environment for a focus group is important as the room must be big enough

to contain the participants and the tape-recorder placed in an advantageous location, where they can all be heard and recorded. For focus group work, it is essential to have a top quality tape-recorder. Merton and King (1990) suggest a spatial arrangement of a circle or semi-circle, which seems the most successful seating arrangement.

The group interviews should have a clearly identified agenda otherwise they deteriorate into vague and chaotic discussions (Stewart and Shamdasani, 2007). Morgan (1997) believes in the importance of time management because both interviewer and informants have limited time. Time management is one of the tasks of the facilitator. Focus groups are more productive if the time for interchange is not too short. Usually focus group interviews last around 1½ to 2 hours but this might depend on age, vulnerability or power of concentration of participants.

From the beginning the researcher establishes ground rules, so that all group members know how to proceed. Researchers plan the initial questions and prompts. When the interviews start, the interviewer puts the group at ease and introduces the topic to be debated. Strategies such as showing a film or telling a story related to the topic sometimes stimulate interaction. Kitzinger and Barbour (1999) also suggest such stimulus material as vignettes or photographs. Researchers often adopt the strategy of asking stimulus questions and generally proceed from the more general to the specific, just as in other qualitative interviews. Involving all the participants, rather than letting a few individuals dominate the situation demands diplomacy and would be easier with a smaller group. Extreme views in a group of people are balanced out by the reactions of the majority when debating questions. As suggested before, focus groups can be combined with individual interviews, observation or other methods of data collection but this is not essential.

In focus groups, as in all other research, ethical issues must be considered. Confidentiality, in particular, could be problematic in group interviews as members of the group might discuss the findings in other settings and situations. They should be reminded to keep the discussions confidential. Anonymity cannot be guaranteed, as members of the group might be able to identify other participants even when researchers only use first names. Participants may make remarks that are hurtful to others, or show prejudice, and the researcher has to find ways to deal with this.

The interviewer becomes the facilitator or moderator in the group discussion although it could be useful to have another person who takes notes. In health research, the health professional is usually the interviewer (while in market research focus groups, professional moderators are employed). In a small project, a single interviewer usually facilitates the groups. The presence of

a note-taker who can make fieldnotes, draw diagrams with the names of participants and generally help with practical matters, could be very useful. The researcher should have the particular qualities of the in-depth interviewer: flexibility, open-mindedness and skill in eliciting information. The creation of an open and non-threatening group climate is one of their initial important tasks.

Researchers must be able to stimulate discussion and have insight and interest in the ideas of the informants. The leadership role of the moderators demands abilities above that of the one-to-one interviewer. They must have the social and refereeing skills to guide the members towards effective interaction and sometimes be able to exert control over informants and topic without directing the debate or coercing the participants. If the group feels at ease with the interviewer, the interaction will be open and productive, and the participants will be comfortable about disclosing their perceptions and feelings. Researchers might experience difficulties with particular groups such as teenagers, while getting together groups of disabled people may present practical problems in the available space.

Morgan (1997) advises that the interviewers hold back on questioning if they want to examine the real feelings of participants; much of the discussion evolves from the dynamics of group interaction. Indeed Kitzinger (2005: 57) claims that 'a defining feature of focus group research is using the interaction between research participants to generate data and giving attention to that interaction as part of the analysis'. This non-directive approach has particular importance in exploratory research where perceptions are examined. High involvement of the interviewer leads more quickly to the core of the topic, but special facilitation skills are needed if the focus groups are going to be successful. The interviewers should not express their own biases or assumptions in the focus groups. A special relationship with a specific individual, an affirmative nod at something of which the interviewer approves, or a lack of encouragement for unexpected or unwelcome answers may bias the interviews too. Again, group behaviour is an important factor. Polarisation of views may generate a difficult group climate. Although conflicts of opinion can produce valuable data, the interviewer must defuse personal hostility between members, which demands good facilitating skills. Gestures and facial expressions have to be controlled to show members of the group that the interviewer is non-judgemental and values the views of all participants. Streubert Speziale and Rinaldi Carpenter (2007) argue that a good facilitator can help the group to avoid 'group think' and offence to some participants.

Analysing and reporting focus group data

The principles of qualitative data analysis are similar to those of other non-structured or semi-structured interviews. Most often the interviews are

recorded, and initially the researcher listens several times to each tape before making transcripts. Although this method has been used in market research, it is difficult to identify individuals' voices on a tape. The problem of identification might be overcome with videotaping, but Sim (1998) suggests that this might inhibit participants, particularly when they discuss a sensitive issue.

All tapes, fieldnotes and memos are dated and labelled. A wide margin is left on the transcript for coding and categorising. The transcription should include laughter, notes about pauses and emphasis, and the researcher makes fieldnotes on anything unusual, interesting or contradictory and writes memos about theoretical ideas while listening, transcribing and reading. It is important to be clear about who says what, because this can identify those individuals who try to dominate the discussion. The interviewer could note this while listening to the tape. At the listening stage, major themes and patterns can already be found. It is important, however, that researchers focus on the context of group interaction not just on the comments of particular individuals but on all of them (Ashbury, 1995). This interaction might stimulate thought in the participants but it could also intimidate some or encourage others.

Interviewers code paragraphs and sentences by extracting the essence of ideas within them and using labels which they put into the margin of the transcript. Through a reduction of these codes into larger categories, themes and ideas will be found. As in other types of qualitative research, the frequency of themes that are found is not as important as their significance; some obviously have priority over others for the specific study. The method of analysis in focus groups is similar to those of other approaches; in fact, focus groups can be analysed by thematic analysis (see Chapter 17) or another form of qualitative analysis.

The analyst repeats the process with each focus group interview and compares the transcripts. The major themes arising from individual interviews are then connected with each other; topics in one interview will overlap with those of other focus groups. Once these themes have been formulated, the patterns described and their meaning interpreted, the literature connected with these ideas is discussed. The appropriate literature becomes confirmation or challenge to the researcher's findings as in other qualitative research.

Researchers substantiate their work with relevant quotes from the participants, showing the data from which the patterns and constructs arise; excerpts from interactions are part of these quotes. Although patterns and consistencies are important for reporting, individual comments are also important as they might form an alternative response to the rest of the data. If there are many such deviant cases, it might be useful to add one-to-one interviews to explore these further.

To write up the study, the interviewers develop a storyline, that is, they must produce an account that is readable and clear. The main concerns of the participants have to emerge from the report as the most important parts of the story. The findings from the focus group interviews are often used as a basis for action.

Advantages and limitations of focus groups

In general the advantages and limitations in this approach are those of all qualitative interviews, but there are a number of strengths and weaknesses specific to focus groups (Stewart and Shamdasani, 2007). The main strength is the production of data through social interaction. The dynamic interaction stimulates the thoughts of participants and reminds them of their own feelings about the research topic. Informants build on the answers of others in the group. Second, on responding to each other's comments, informants might generate new and spontaneous ideas, which researchers had not thought of before or during the interview. Through interaction informants remember forgotten feelings and thoughts. Third, all the participants, including the interviewer, have the opportunity to ask questions, and these will produce more ideas than individual interviews. Kitzinger (2005) suggests that group interaction gives courage to the informants to mention even sensitive topics. The interview might empower participants because as group members they often feel more able to express their views.

The researcher has the opportunity for prompts and questions for clarification just like the other members of the group. These probes will produce more ideas than individual interviews, and the answers show the participants' feelings about a topic and the priorities in the situation under discussion. The researcher can clarify conflicts between participants and ask about the reasons for these differing views. Focus groups produce more data in the same space of time; this could make them cheaper and quicker than individual interviews. Some people dislike opening up their inner thoughts in public and may be reluctant to answer some questions – one of the reasons for careful selection of participants. Though the presence of others might inhibit disclosure, which is a disadvantage in these settings, it can also allow individuals to be quiet and obviate the need to respond if they do not wish to disclose something.

There are also some disadvantages. The researcher generally has more difficulty managing the debate and less control over the process than in one-to-one interviews. As group members interact throughout the interview, one or two individuals may dominate the discussion and influence the outcome or perhaps even introduce bias, as the other members may be merely compliant. The group effect may, as Carey and Smith (1994) suggest, lead to conformity or to convergent answers. They use the term 'censoring', by which they mean the critical stance of group members towards each other. The participants affect each other, while in individual interviews the 'real' feelings of the individual informant may be more readily revealed. A person who is unable to verbalise feelings and thoughts will not make a good informant in focus groups. Indeed, Merton and King (1990) stress the importance of educational homogeneity of the group. If group members have similar educational backgrounds, the chance for contribution from all members is greater. The status of a few well-educated

individuals would inhibit the rest of the members in the group and might even silence them, and therefore similarity of social background is useful. The group members might know each other before the meeting, and it is important to take this into account. This means that sampling procedures which determine the composition of the group, are of paramount importance.

The group climate can inhibit or fail to stimulate an individual or it can, of course, be stimulating and lively and generate more data. Where a researcher feels certain that confrontation and conflict is likely to occur between potential group members, she or he has to be sensitive to group feelings and reconcile their ideas. Conflict can be destructive but can also generate rich data. In any conflict situation, ethical issues must be carefully considered. Sim (1998) identifies some problems with focus groups.

It cannot be assumed that there is conformity and consensus between the individual members of the group, although it may seem so.

Although some inferences may be drawn about the absence or presence of certain perspectives or feelings, the strength of the individual's emotions cannot be measured or assumed.

Focus group findings based on empirical data cannot be generalised, though theoretical generalisation is feasible as in other qualitative research.

In research with nurses and other health professionals, it is always difficult to establish focus groups because of the differences in time when they can be available or in the lack of a suitable location which has to be large enough to accommodate more than just two people. This is easier in the community than in hospitals.

Transcription can be much more difficult than in one-to-one interviews because peoples' voices vary, and the distance they sit from the microphone influences the clarity of individuals' contributions. As there are certain dangers of group effect and group member control, it is useful to analyse the interviews both at group level and at the level of the individual participants. The researcher must remember that the data must be seen within the context of the group setting (Carey and Smith, 1994). Fieldnotes should be made immediately after the session.

Critical comments on focus group interviews in healthcare

There is some criticism about the use of focus groups in nursing and healthcare. We would suggest that sometimes these interviews are used because researchers feel this is an easy and popular way of gaining access to a larger sample, and funding agencies seem to like it. The complexities of setting up and facilitating focus groups are often forgotten. In a search through the Cumulative Index

of Nursing and Allied Health Literature (CINAHL), Webb and Kevern (2001) found rather unsophisticated and uncritical uses of focus group research in the years 1990–1999. Few articles contained empirical research, and furthermore, some of the discussions were superficial and non-analytical. The writers suggest that researchers discuss the theoretical and methodological assumptions in their work and become more rigorous in their use of methodology. Webb and Kevern claim that the input from other disciplines, the social sciences in particular, would enhance and develop nursing knowledge.

Summary

- A focus group consists of a small number of people with common experiences or areas of interest.
- Several focus groups with a small number of individuals are involved in each study.
- Whilst the interviews are carefully planned, the interviewer must at the same time be flexible and non-judgmental.
- The dynamic of the group situation is intended to stimulate ideas and elicit feelings about the focus of the study.
- It is important that an open climate exists so that group members feel comfortable about sharing their thoughts and feelings.
- The data can be analysed by any qualitative analysis method as long as researchers have adhered to the principles of the particular approach.
- Not all qualitative approaches are compatible with focus group interviews.

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CHAPTER 9

Sampling and Site Selection

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Further reading

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Purposeful (or purposive) sampling

The sampling strategies of the qualitative researcher are guided by principles of ethics and the opportunity of gaining access to people whom they can observe and interview in-depth, and from whom they can obtain rich data. The selection of participants (settings, or units of time) is criterion-based, that is, certain

sampling is the purposeful selection of an element of the whole population to gain knowledge and information. The question is: *whom* do the researchers choose and *how* do they choose (of course there is also other sampling such as time, location, etc. which is not discussed fully here). In qualitative inquiry it differs in several significant ways from the sampling strategies which quantitative researchers carry out; probability sampling, for instance, is inappropriate in qualitative research. Sampling is an important part of the research procedures and has to be suitable for the specific research topic and question. As in other forms of inquiry, researchers distinguish between the target population, the study population and the sampling frame (Procter and Allan, 2006). The accessible population that has the particular experience or knowledge of the phenomenon which the researcher is seeking to explore is the target population. The study population consists of the individuals to whom the researcher can gain access and who have the appropriate knowledge and experience, while the sampling frame is the population from which the sample is chosen. The terms mentioned above however are not often discussed in qualitative research though they hold for any type of research.

The researchers do not only describe the sampling strategies and justify the selection of the sample but also explain how they gained access to the participants in the research. Sampling is a complex process which is informed by the research question and theoretical considerations, and it is guided by the phenomenon of interest to the researcher.

criteria are applied, and the sample is chosen accordingly. Sampling units are selected for a specific purpose on which the researcher decides, therefore the term 'purposive' or 'purposeful' sampling is used. For instance, the researcher chooses a sample on the basis of group membership, on the basis of the experiences that participants have had or the type of treatment and care that they were given. The group is specified in advance. Some researchers use the term 'criterion-based' sampling (Schensul *et al.*, 1999; Endacott and Botti, 2004), because most sampling strategies, even random or theoretical sampling, are highly purposive. However, *purposive* or *purposeful* is the term used by most qualitative researchers, and it is based on the judgement of the researcher. Purposeful sampling can also include the site or setting of the research.

At the start of the research, researchers must ask two questions: *what* to sample and *how* to sample. People generally form the main sampling units. The appropriate informant is chosen by the researcher or may be self-selected. Sometimes researchers can easily identify individuals or groups with special knowledge of a topic, occasionally they advertise or ask for informants who have insight into a particular situation or are experts in an area of knowledge. These voluntary participants selected for the research are often those that are most articulate because the researchers find it easier to communicate with them and elicit rich data, but this might lead to a neglect of certain individuals that are powerless or inarticulate and who should be included; indeed they might be very important as their voices are often marginalised.

Individuals are sampled for the information they can provide about a specific phenomenon, be it a condition, such as an illness, a treatment (for instance a particular medicine, manipulation, counselling), a type of care, professional decision-making, etc. They could be nurses who have cared for people undergoing treatment, patients who have had day surgery or midwifery students who are interviewed about their clinical experience and so on. Identification of a particular population provides boundaries between those who are included in the study and those who stay outside it (inclusion and exclusion criteria). The members of the sample share certain characteristics. The sample is thus chosen on the basis of personal knowledge of the person selected about the phenomenon under study.

Useful informants would be people who have had experiences about which the researcher wants to gain information. For example, individuals who have diabetes might share experiences and the meanings that these have for them with the health researcher.

Informants with special knowledge or experience might consist of newcomers, people who are changing status, or those who have been in the setting for a long time. Individuals who are willing to talk about their experience and perceptions are often those persons who have a special approach to their work. Some have power or status; others are naive, frustrated, hostile or attention seeking, although researchers must remember that the latter are not always the

best informants because they may have a mainly negative perception of the organisation or institution under discussion – 'an axe to grind'. Ethically it is important that the persons in the sample are not jeopardised by 'confessing' to their practices (unless illegal) and uncovering their thoughts.

As in all research, the researcher needs to clarify the rationale for inclusion and exclusion of particular people or other sampling units.

Example of purposive sampling

Bisson *et al.* (2009) give an account of their qualitative research which aimed to gain the view of a variety of sufferers of Huntington's disease on decision making on which they develop a care pathway for future decisions and powers of attorney. They used purposive sampling in order to gain a range of perspectives from various individuals such as sufferers, people with the gene, carers and clinicians in the field. They also included a lawyer, medical ethicists and advisors from the Huntington's Disease Association. This sample was chosen to gain a full range of perspectives from individuals. Theoretical sampling was also used to collect the views of both males and females, old and young participants.

Sampling types

There are various forms of sampling. We shall discuss only the most often used and important types. An overview of a whole range can be found in Patton (2002) and Kuzel (1999), although many sampling types overlap. The commonest methods are as follows:

- Homogeneous sampling
- Heterogeneous sampling
- Total population sampling
- Chain referral sampling (snowball sampling)
- Convenience or opportunistic sampling
- Maximum variation sampling
- Theoretical sampling

Homogeneous sampling

This involves individuals who belong to the same subculture or have similar characteristics. Nurses often use homogeneous sample units when they wish to observe or interview a particular group, for instance specialist nurses. Midwives may wish to examine the perspectives of community midwives on their role in the community. In these examples, a homogeneous group is being studied. The sample can be homogeneous with respect to a certain variable only – for

instance, specific occupation, length of experience, type of experience, age or gender. The important variable would be established before the sampling starts.

Example of homogeneous sampling

Examples of homogeneous sampling would consist, for instance, of a group of adolescent schoolgirls between the ages of 13 and 15 who are being interviewed about a topic that is of importance to them, or a number of orthopaedic surgeons who have used a Taylor Spatial Frame. For the purpose of the specific studies, they would be homogeneous samples.

A heterogeneous sample contains individuals or groups of individuals who differ from each other in a major aspect. For instance, nurses may wish to explore the perceptions of nurses, social workers and doctors who care for patients with HIV. The three groups form a heterogeneous sample. Heterogeneous sampling is also called maximum variation sampling (Patton, 2002) because it involves a search for individuals with widely differing experiences and for variations in settings.

Example for heterogeneous sampling

Researchers might wish to explore the perspective of people with a chronic illness and the ways they choose strategies for managing their condition. The heterogeneous sample might comprise males and females across a broad range of ages with different jobs and from a variety of different backgrounds. This sample would be chosen to maximise contrasts between the participants.

The sample might consist of people from a naturally occurring population – such as members of a local carers' group, a specific ward, a community of patients. Some sampling is based on early findings with a group and cannot be determined prior to the study. For instance, a midwife could sample women who have just given birth to their first child and find that it would be interesting to select older and younger primiparae because they might have different ideas about childbirth. Sometimes married couples are chosen as samples or people who live together. Occasionally the sample consists of focus groups, for instance self-help groups, or groups with similar conditions or experiences.

Convenience sampling

A sample is called a total population sample when all participants selected come from a particular group; it is used infrequently in qualitative research. For instance, all the nurses with specific knowledge or a skill, such as those

with training and experience in counselling, might be interviewed because the researcher focuses on this skill, and there might be few available with the particular expertise. There are some diseases where those who suffer from them are very small in number, and the researcher might interview all of these. All midwives in one midwifery unit might be observed, because the specific setting in which they work or the special techniques they adopt are seen as important. Not many qualitative studies carry out total population sampling.

A variation of purposive sampling is chain referral or *snowball* sampling (the former is a term originally coined by Biernacki and Waldorf (1981)). A previously chosen informant is asked to identify other potential participants with knowledge of a particular area or topic, and these in turn nominate other individuals for the research. Researchers use snowball sampling in studies where they cannot identify useful informants, where informants are not easily accessible or where anonymity is desirable, for instance in studies about drug addiction or alcohol use. Penrod *et al.* (2003) suggest that chain referral sampling is useful in situations where people are vulnerable and when they are not easily accessible: this might include groups who are labelled negatively by society (for instance, those that suffer from sexually transmitted diseases), those with whom researchers discuss sensitive topics (such as sexual behaviour) or those individuals who fear being exposed or criminalised (i.e. substance users).

Example of chain referral sampling

A sample of Lesbian couples were interviewed by Spidberg (2007) about maternity care. After initial recruitment through sending leaflets, snowballing took place through recruitment by women already interviewed through word of mouth information to friends who then volunteered to be interviewed.

The terms *convenience* or *opportunistic* sampling are self-explanatory. The researcher uses opportunities to ask people who might be useful for the study and easy to access. To some extent, of course, most sampling is opportunistic and arranged for the convenience of the researcher. Researchers usually adopt this sampling strategy when recruiting people is difficult, though this is not the best way of sampling.

The researcher chooses individuals whose ideas or experiences will help achieve the aim of the research; occasionally variations in the sample have no specific influence on the phenomenon to be explored, and in this case a convenience sample can be selected.

Example of convenience sampling

Rodham *et al.* (2006) studied risk behaviours in adolescence. As a convenience sample for easy accessibility in their locality, they selected four schools from the Bath area and asked for volunteers over 16 of the school population to participate in the study. Another convenience sample might consist of all midwives who work in a particular hospital because the researcher has easy access to them and they fit other criteria specified for the research.

Theoretical sampling

Maximum variation sampling entails selecting a purposive sample of a wide variety of people and/or settings of interest to the researcher. It may include, for instance both genders, young and old, different nationalities, etc. The researcher intends to access a broad range of perspectives from many different people. This means that the sample will have to be relatively large. This type of sampling is not often used in qualitative research which is generally more specific.

Theoretical sampling

Glaser and Strauss (1967) advocate *theoretical sampling* in the process of collecting data. Theoretical sampling develops as the study proceeds, and it cannot be planned beforehand. Researchers select their sample on the basis of concepts and theoretical issues that arise during the research. The theoretical ideas control the collection of data; therefore researchers have to justify the inclusion of particular sampling units. At the point of data saturation, when no new ideas arise that are of value to the developing theory, sampling can stop. Coyne (1997) discusses qualitative sampling in depth and differentiates between purposive and theoretical sampling (Chapter 11), although she believes that theoretical sampling could be called 'analysis driven purposeful sampling'. Sandelowski (1995) also maintains that all sampling in qualitative research is purposeful; it is intended to achieve a specific aim. She claims that theoretical sampling is merely a variation of purposive sampling.

Other types of sample selection

Other methods of purposive or criterion-based sampling sometimes overlap with those above and can be examples of purposive sampling (for a variety of these, see Schensul *et al.*, 1999: 236):

- Extreme case selection
- Typical case selection

- Unique case selection
- Deviant case selection

In *extreme case selection*, the researcher identifies certain characteristics for the setting or population. Extremes of these characteristics are sought and arranged on a continuum. The cases that belong at the two ends of this continuum become the extreme cases. For instance, nurses may study a very large or a very small ward. These can be compared with cases that are the norm for the hospital population.

In *typical case selection*, researchers create a profile of characteristics for an average case and find instances of this. They might exclude the very young or old, the almost healthy and the most vulnerable or any other participants at the end of a continuum. They would be those that are typical or normal for the investigation of a particular phenomenon.

When choosing *unique cases*, researchers study those that differ from others by a single characteristic or dimension such as people who share a particular condition but come from an unusual community, such as a sect or ethnic group. This type of sample consists of the uncommon and unique cases which are not normal or typical.

Deviant case selection is similar to the above and to extreme case selection. However, only those people are included who think in a very different way from other people whose ideas have been researched before, or those who have a different experience from others although they have had the same condition, treatment or care.

There are other terms for and types of sampling but the preceding are the most common. Kuzel (1999) lists five important elements of sampling which may occur in qualitative research:

- Flexible sampling which develops during the study
- Sequential selection of sampling units
- Sampling guided by theoretical development which becomes progressively more focused
- Continuing sampling until no new relevant data arise (sampling to saturation)
- Searching for negative or deviant cases

Sampling decisions

Early in a research project, and depending on the research question and focus, researchers have to make their sampling decisions. Qualitative approaches demand different sampling techniques from the randomly selected and probabilistic sampling used by quantitative researchers. It is, however, just as important for qualitative researchers to make their sampling decisions on a systematic basis and on rational grounds. A sample in qualitative research consists

of sampling units of people, time or setting. Nurse and midwife researchers have to select the individuals or group members (*whom* to sample), the time and context (*what* to sample) and the place (*where* to sample), because they cannot investigate everything. It must be remembered that the people and places must be available and accessible.

The sampling strategies adopted can make a difference to the whole study. The rules of qualitative sampling are less rigid than those of quantitative methods but the sampling needs to be criterion-based. Sampling need be both appropriate and adequate (Morse and Field, 1996). Appropriateness means that the method of sampling fits the aim of the study and helps the understanding of the research problem. A sampling strategy is adequate if it generates adequate and relevant information and sufficient quality data.

Sampling takes place after the research focus has been decided. Although qualitative researchers start selecting participants at this stage, they can continue the selection throughout the process if more are needed because of the changing focus or extension of ideas as the study progresses, especially in grounded theory and ethnography. In some cases it is not necessary to specify the overall sample and give an exact number of informants from the beginning of the study, although an initial sample should be stated. This sampling strategy differs from quantitative research where respondents are chosen before the project begins. A qualitative proposal could state, for instance, that the initial sample should consist of x (number of) informants. Grounded theory and ethnography favour this type of sampling while phenomenologists choose a sample without adding to it at a later stage. Ethics committees do not always accommodate the idea of theoretical sampling and wish to know the exact number and clear description of the sample.

When describing their sampling strategies, researchers describe inclusion and exclusion criteria. Inclusion criteria state what particular people are included in the research, while participants that are excluded – though meeting some of the inclusion criteria – might be too vulnerable to be interviewed or have certain traits that might make the research problematic. For instance, in Britain or the US, people who do not understand the English language might have to be excluded for practical or access reasons (although, of course, they might be the target population in other studies). Undergraduates are advised to exclude from their sample vulnerable people or those with mental health problems. In a study of the birth process, women with normal birth experience might be included while those with Caesareans or those with still-born babies might be excluded for ethical reasons. The exclusion and inclusion criteria depend, of course, on the aim of the particular study. One of the most important inclusion criteria is voluntary participation.

The investigators do not only decide on the participants in their study but also on the time and location of the research. The criteria for selecting must be clearly identified.

Woods (2006) suggests that sometimes 'naturalistic' sampling is appropriate, and the sample might consist of people, context and time. In an ethnographic study for instance, a particular subculture might be researched in different settings and situations. The people in the study are chosen for their experience and knowledge of the phenomenon under study. A particular phenomenon might be researched in a range of contexts in which it occurs. Different times of the day, year or stages in the process of care might also be a significant factor in the research.

The criteria for site selection, location and size also depend on the aim of the research. The setting can be small or large depending on the type of study; for instance it might be a ward, a general practice, the community or a hospital. For a multi-centre study it might be particular types of hospital or a number of clinics. The research might also take place during a particular important or critical time of the day.

Example 1: Setting and site

A nurse researcher has decided to examine the role of the critical care nurse. She chooses three different hospitals in the South of England as the setting for her study.

Example 2: Time

A district nurse might find that her patients are more anxious at particular times of the morning. She might then focus on a specific time in the afternoon to see whether patients behave in a similar way at that time.

The sample may be small or large, depending on the type of research question, material and time resources as well as on the number of researchers. Generally qualitative sampling consists of small sampling units studied in depth. Sample size differs greatly in qualitative studies; a large sample is rarely necessary in qualitative research. However, researchers must be warned that some funding agencies and even some members of ethics committees do not have the appropriate knowledge of sampling and often reject the small sample that qualitative research entails.

Although there are no rigid rules, six to eight data units are seen as sufficient when the sample consists of a homogeneous group while between 14 and 20

might be needed for a heterogeneous sample. Most often, the sample consists of between 4 and 40 informants, though certain research projects contain as many as 200 participants and as few as 2. Qualitative studies that include a large sample do exist but are rare. Sample size, however, does not necessarily determine the importance of the study or the quality of the data.

Example of sampling size

Billhult *et al.* (2007) for instance, interviewed ten participants, while Kulash and Northrop (2007) only included six.

Aveyard and Woolliams (2006) describe their sample clearly: they had a larger sample of 30 registered nurses with at least one year experience from general medical wards in two teaching hospitals.

In an early qualitative study, Strong (1979) included as many as 1120 paediatric consultations, but the choice of a large sample is not only unusual, in many cases it might also be inappropriate. In this case however, it involved observations and the sample can be justified as it is based on observations in which immersion is necessary, rather than on interviews. Another large sample was selected by Bennis (1984) in her study which included 109 participants.

A sample of just one participant was chosen by Todres *et al.* (2005). The research arose from a collaboration between a carer for a partner with Alzheimer's, and two researchers who wished to gain insight into the experience of caring.

There is rarely justification for a very large sample in qualitative research. Students or experienced researchers often choose these to appease funding bodies, which are used to large samples, or research committees which do not always know details of qualitative research. Often, qualitative researchers select larger samples because they are trained in quantitative research where generalisation is demanded, or because they are anxious that an external examiner might query the sample size. A large sample, however, is unnecessary and might result in less depth and richness as the researcher's intention is usually to research a specific setting and has a purposive sample. An overlarge sample might not capture the meanings participants ascribe to their experience, and it could result in the loss of the unique and specific. Even a sample of one can be meaningful (Todres *et al.*, 2005).

Saturation indicates that everything of importance to the agenda of a research project will emerge in the data and concepts obtained; Lincoln and Guba (1985) call this 'informational redundancy'. *Data saturation* means sampling to redundancy. *Theoretical saturation* denotes that no new concepts or dimensions

for categories can be identified which are important for the study. It does not mean that nothing new can be found at all. Indeed, Morse (1995) specifically states that frequency, quantity and repetition of ideas in the data do not signify saturation or data adequacy. Unfortunately, no specific rules or guidelines exist pertaining to saturation, so researchers have to decide for themselves when this has happened.

Many approaches aim for data or theoretical saturation but fail to achieve it. Bowen (2008) also deplores that researchers often state that saturation has been achieved but do not clarify what it means in the context of their own specific study. Often there are time constraints and other barriers to sample saturation; hence it is not always appropriate to confirm saturation. Morse (1995) maintains that careful choice of sampling, and the cohesiveness of the sample can help in achieving saturation.

How shall we name them?

It is difficult for researchers to know what term to use for the people they interview and observe, especially as this name makes explicit the stance of the researchers and their relationship to those being studied. We favour the terms 'participant' or 'informant'. In surveys, both by structured interviews and written questionnaires, the most frequent term has been 'respondents', and indeed, many qualitative researchers and research texts still use it, but it seems less frequent now in qualitative research texts and reports.

Morse (1991) developed a debate about terms almost two decades ago, and her thoughts on sampling are still valid. She claims that 'respondent' implies a passive response to a stimulus – the researcher's question. It sounds mechanistic. Medical and business researchers still use this term often in qualitative research. Bio-medical researchers refer to 'subjects', again a word that expresses passivity of the people involved in a study. Interestingly it is used in legal documents and sometimes in ethical guidelines (see Chapter 4). West and Butler (2003) quote Margaret Mead who, decades ago, criticised the word 'subject' and maintains that research *with* informants would yield better data. In qualitative research it would be inappropriate. 'Interviewee' sounds clumsy and boring. The American Psychological Association now also uses the term 'participants' when discussing human beings involved in research (APA, 2003).

Anthropologists refer to 'informants', those members of a culture or group who voluntarily 'inform' the researcher about their world and play an active part in the research. Morse (1995) usually chooses this term, though she acknowledges the suggestion by some journal editors that it might be seen to have links to the word 'informant' as used by the police. Most ethnographers, however, still use the term and do not perceive it as negative. Generally, qualitative researchers prefer the term 'participant'; this expresses the collaboration

between the researcher and the researched (DePoy and Gitlin, 2005) and the equality of their relationship, but the term could be misleading as the researcher, too, is a participant in the research. Van den Hoonard (2008) debates the term 'human subject', its alternatives and ethical implications in his article; he too prefers the term 'participant' or 'informant' to the word 'subject' as it is more appropriate for social and interactive individuals although bio-medical researchers still talk of 'human subjects'.

In the end, however, the nurses or midwives must choose for themselves which term suits their research. In Morse's words: 'Subjects, respondents, informants, participants – choose your own term, but choose a term that fits' (1991: 406). We suggest that students use the terms 'participant' or informant in ethnographic studies, but never the word 'subject'.

Summary

- ② The following are the important features of qualitative sampling:
- ③ Sampling is usually purposeful and criterion-based, chosen specifically for the study.
- ④ The sample of individuals in qualitative research is generally small.
- ⑤ Sampling units can consist of people, time, setting, processes or concepts (the latter is called theoretical sampling).
- ⑥ Sampling is not always wholly determined prior to the study but may proceed throughout (for instance in grounded theory).
- ⑦ The individuals in the sample are usually called *participants* or *informants* (in qualitative research they should never be called subjects).

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PART THREE**Approaches to Qualitative Research**