Chapter 6
Qualitative Research in Gerontology and Geriatrics

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Abstract What makes qualitative research a unique approach is its ability to create in-depth knowledge about the topic under study. In this chapter, we first discuss qualitative research methods in general. Several approaches exist to conduct qualitative research and we examine how these methods can be used to study issues that affect older adults, highlighting the relative strengths and weaknesses of these methods. We present and discuss several data collection strategies: observation, in depth interviews, focal discussion groups, diaries and other registries. We also provide a few ideas on how to overcome typical challenges faced when using qualitative methods to study issues that affect older adults.

Keywords Qualitative research · In-depth interviews · Sampling strategies in qualitative research

6.1 Introduction

Qualitative research methods are approaches used to conduct research that are qualitative in nature. This statement begins to appear more interesting when we ask about the specific characteristics of qualitative research in comparison to quantitative research. Is it true that all research, whether quantitative or qualitative, holds similar characteristics and therefore it is not possible to distinguish their products…? We posit that all research shares similar goals of describing, explaining, and predicting phenomena, but the scope and methods of qualitative research are different from those used in quantitative research. Does that mean that these two forms of research are so different that they cannot be used together or cannot form any type of partnership? Here, we will disagree. While the goals and methods may be different, qualitative and

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quantitative research methods are often used together, sometimes simultaneously, and other times sequentially (see Chap. 10 on Mixed Methods). The first take-home message in this chapter is that quantitative and qualitative research may be used independently or interdependently to study issues relevant to older adults.

6.2   The Niche of Qualitative Research

What makes qualitative research a unique approach is its ability to create in-depth knowledge about the topic under study, partly based on its ability to conduct naturalistic inquiries, but also in its data analysis and reporting tradition of placing emphasis on narratives rather than merely numbers and figures. We can also cite the traditional research questions for which qualitative research is best suited —namely, when we are interested in describing or explaining the *how's* and *why's* of processes and complex behaviors. If a metaphor is adequate, we can say that qualitative researchers engage cultural humility [1] to study a problem through an iterative approach, increasingly gaining confidence in the nature of the phenomena they seek to understand. Moreover, a distinctive characteristic of qualitative research is that data collection is always conducted in consideration of the specific situation of the participant (e.g., meeting the participant where she or he is, adapting the duration and timing of interviews or other data collection strategies) and the participant as an expert in his/her lived experience.

Several approaches exist for conducting qualitative research and specifically with older adults. Creswell (2003) identifies the following methods: narrative, phenomenology, ethnography, case study, and grounded theory, and explains that both narrative and phenomenology are best suited for the study of individuals, while case studies and grounded theory can be used to explore processes, activities and events, while ethnography might be used to learn about culture and shared behaviors [2].

6.3   Sampling Alternatives

One of the most important ways to increase the usefulness of qualitative research is by having adequate sampling plans and procedures [3]. It has been established that qualitative research should not attempt to compete with quantitative studies in terms of statistical *representativity*. In fact, what makes qualitative research so attractive and useful is the selection of carefully chosen samples to examine the research question(s). While there are no definite or exclusive sampling procedures, Hertzog offers helpful information for pilot studies [4]. We discuss below a few ideas on how to attain a sample that is most useful. In addition, qualitative research has several choices when it comes to sampling, including: deviant case sampling, typical case sampling, maximum variation sampling, respondent-driven sampling (including snowball sampling), convenience sampling, negative-case sampling, and key-informant sampling.

The different targets and features of these sampling strategies are discussed by Namey and Trotter [5] and summarized in the table below Table 6.1.

Table 6.1 Sample strategies commonly used in qualitative research

Sampling strategy	Characteristics, Uses
Atypical cases	Best when the interest is in identifying specific characteristics that make some people special, or different (e.g., migrants, high-achievers, etc.)
Typical cases	The researcher attempts to find commonalities in the sample
Maximum variation	Cases are selected to represent opposite poles of a continuum (e.g., patients who are most and least willing to accept a given treatment).
Respondent-driven	Such as snow-ball samples, useful when it is difficult to identify and recruit participants (e.g., drug use cases), or to work with stigmatized populations (e.g., transgender, HIV patients, among others)
Convenience	Easiest approach, but researchers need to fight selection bias
Negative-cases	Useful to identify characteristics and factors that might decrease the usefulness of an intervention, for example.
Key-informants	Assumes certain people have access to valuable information, or impact groups and communities in particular ways.

6.4 Data Collection Strategies

Data collection strategies must correspond to the goals for the study. All in all, the main task is to record as accurately as possible the physical setting, participant behaviors and interactions, including verbal and non-verbal exchanges [6, 7]. Qualitative researchers have several methods to choose when they are developing their data collection strategies, in this case, with older adults. These include but are not limited to observation (participant and non-participant), in-depth interviews, focus group discussions, as well as documents and artifacts analysis.

6.4.1 Observation

Qualitative research can use a variety of observation strategies to collect data. The degree to which the researcher gets involved can vary, depending on the characteristics of what is being observed, and the relationship with those who are the protagonists. Participant observation takes into account the potential influence of the observer on what is being observed, as well as the potential influence of what is being observed on the observer. In any case, the quality of the documentation is of outmost importance. In prior times, ethnographers travelled with teams of artists that would draw images of objects, people, and context, wrote extensive diaries, and even collected specimens of vegetables and animals. There is no doubt that the technological revolution makes observation much easier, in that, today it is quite easy to record conversations and film entire sequences of events. However, we must note that regardless of the level of participation, researchers collecting data through observation must honor Human Subjects Protection principles. For example, no conversation is to be recorded for research purposes without explicit permission of

those involved. This is critical in research with vulnerable populations including older adults (see Chap. 16).

We briefly mentioned earlier the importance of documentation. Field notes can help identify and reassess behaviors, situations, or elements that at first sight might have been overlooked, inadvertently. An additional consideration is that filed notes may help reduce researcher bias, or at least identify it.

6.4.2   In–Depth Interviews

It is no secret that in qualitative research, the skills and preparedness of the interviewer is paramount. Here, the researcher wants to be prepared to observe and record pieces of data that will enable her or him to develop a greater understanding of the interactions and communications that will occur. Interviews can be structured or semi-structured, depending on the degree to which the interviewer will follow a script with questions, the extent and nature of probes inviting for clarification or elaboration on a specific topic. Structured interviews may yield data that is easier to merge or compare to other interviews, but semi-structured interviews allow for a greater and deeper exploration of participant ideas, experiences, and emotions.

An interview guide must be prepared in advance, including complete information on Human Subjects Protection and a series of questions that can generate an informational conversation with the participant. These questions can be conceptualized as generating challenges that invite participants to become involved in a natural conversation. The prepared interviewer will be able to posit probes inviting the participant to expand on issues, clarify the meaning of statements, or even expand on a particular item. Hence, the role and contributions from the interviewer cannot be overstated.

6.4.3   Focal Discussion Groups

Traditionally referred to as 'focus groups' the term "focal discussion groups" has been suggested in community participatory studies, where participants reject being seen as "lab rats" or "research subjects" and more as people engaged in a discussion about a topic of interest [8, 9]. Thus, the main task of the facilitator of a focal discussion group concerns recruiting individuals who share an interest on a specific topic (the discussion cannot refer to a general topic, for the multiplicity of opinions would prevent arriving at consensus statements or at least identification of main themes). However, it should be mentioned that focal discussion groups are singularly useful in identifying how social interactions relate to people's ideas and decisions, as the

researcher can observe, register, and then later analyze patterns of inter-relations associated with content, affect, and context during the discussions. No other data collection strategy offers such a unique opportunity to observe how interactions occur in relation to certain topics and the emergence of collective meanings. For example, a trained group facilitator will identify the changes in tone and interaction patterns when a controversial topic is introduced, including fear, excitement, or simply put, rejection.

6.4.4 Diaries, Documents and Other Registries

Another data collection strategy that may prove useful in qualitative research, especially with older adults, is the collection of diaries, documents and other systematic registries, such as correspondence logs, expense reports, and calendars, among others. These data collection methods can be used either on purpose or as a secondary source of information. If participants are asked to record information about daily activities, the researcher can specify particular targets of interest and even bring about preventive measures for potential biases by requesting, for example, that records are created at specific times and/or days of the week, or by indicating a specific time of the day when the record is to be created (e.g., when having lunch). Diaries, documents and other registry data can be obtained from written notes but are not limited to such notes because other forms of resources such as telephone messages, pictures, and drawings can be used. For example, a study can identify factors that impact food intake or diets at nursing homes.

6.5 Analysis of Qualitative Data

It has been established that qualitative data typically take the form of text, voice, and pictures, among others. Unlike quantitative research, often the data analysis process is carried out in qualitative research within the data collection process, in an iterative process that is reciprocally informational [10]. The data collection may be enhanced or adjusted based on preliminary findings, and the interpretation of the data may change as more data are collected. A key point is that data must be interpreted to create information and knowledge. Hence, the analysis of qualitative data requires a process that transforms the original observations into more systematically organized representations [11]. Here are some generic steps for the analysis of data discussed by Creswell [2]:(1) Data preparation (e.g., transcribe voice records), (2) Get a general sense of the data in a first pass, (3) Coding to create categories, (4) Generate a description (of the settings and the categories created in the prior step

and identify themes), (5) Determine how the information will be represented, and, (6) Interpret the meaning of the data.

Creating categories is really a massive undertaking that merits further discussion here. Recall that the main goal of this process is to discover meaningful patterns in the data and/or develop a conceptual representation that is grounded in the data and speaks to the goals of the study. The challenge is to develop this process in such a way that builds credibility to the analysis, and hence coding is a process that must be documented. Several approaches to coding exist; however, the one discussed here is chosen given its relative simplicity and its ability to leave a "paper trail" (or computer files) for documentation [12].

- Once focus group sessions or interviews are transcribed, lines in the document are numbered to facilitate linking codes and other notes to the original text. Specialized qualitative analysis software is available and can be used to facilitate the process but cannot substitute the creative work of the research team.
- "A priori" codes can be created based on the research goals and expertise of the research team. "Emergent" codes are identified from the data as the analysis progresses. This differentiation underscores the iterative nature of the analysis.
- The Grounded Theory approach begins by creating "open or initial codes" that identify key elements of each transcribed line or phrase; then, creating "concepts" or more general codes; then, creating categories by integrating concepts and relating each of these categories to a theoretical model (axial coding), and then developing a narrative to explain the interconnection between these categories (selective coding).

6.6 Peculiarities of Qualitative Research in Gerontology and Geriatrics

Qualitative research uses an approach that is naturalistic and as close to participants and their context as possible. These characteristics allow studies to adapt to participants' needs. However, the specific characteristics of older adults, their immediate social network(s), and their caregivers, must be considered when attempting to develop a qualitative study with this population. Although healthcare access and other aspects including transportation and physical barriers are powerful determinants of service utilization, as well as for research participation, we will not discuss these issues here because they have been discussed in this book elsewhere (Chap. 12. Health Systems Research for Aging). Yet, other peculiarities need to be taken into consideration for qualitative research with older adults. As they may be specific to each approach and data collection method so we discuss them separately in the following paragraphs.

6.6.1   In–Depth Interviews

If properly invited in a culturally competent way, older adults tend to enjoy sharing memories and talking about their experiences. But they often do not like being rushed. This means that a qualitative researcher needs to be patient and respectful of an older participant, and able to skillfully ask probing questions to further explore specific areas in a way that will maximize the information collected without disrupting or disrespecting the participant. Ample time needs to be allotted for in-depth interviews. A problematic situation may arise when someone else transports an older participant to an interview, for the researcher may also need to take this person's time and availability into consideration. Other challenges may also include: hearing issues, recall problems, comprehension, fatigue, medications that may affect mood and alertness, language barriers and other problems.

6.6.2   Group Activities

Focal group discussions are efficient data collection methods for qualitative research focusing on generating collective meanings but the topic must be adequate for this method, as well as the characteristics of the participants. If interaction between participants is somewhat limited, the focal group discussion may not be the best approach. This can happen when language, hearing, and understanding issues are present. For this reason, it is even more important than ever to ensure an adequate physical space for any qualitative research initiative involving groups of older adults.

   Another important consideration is that the facilitator must be able to keep the discussion following a natural flow, such that conversations consistently return to the home theme, even though natural digressions may occur. The facilitator must also actively engage members who may experience reluctance in discussing potentially sensitive issues in a group. In sum, the group facilitator must keep in mind participants' needs for communication, along with the goal of making sure that the research questions set for the group are discussed and that collective meanings are generated.

6.6.3   Observation

Several inputs about everyday challenges and opportunities for older adults can be gained through observational studies of the type of ethnological research. Many questions about family relations, physician-patient interactions, and challenges to older adults can only be identified and explained through rigorous, systematic observational studies where researchers 'shadow' participants through their

every-day activities. The researcher here will be continuously presented with the challenge of realizing how much closeness or distance he should keep. The issue is that it is almost impossible to perform the role of a completely unengaged observer, but even more challenging is the fact that the active-participant researcher will necessarily transform what would have naturally occurred had she/he not been involved.

6.7 Limitations of Qualitative Research

Qualitative research methods have important limitations that can serve as future directions. These include (1) the scope of qualitative research as an exercise that seeks to produce in-depth knowledge rather than representativeness; (2) in addition, qualitative studies' data processing and analyses require extensive work, especially in the preferred scenario that more than one researcher is involved in the analysis of data to increase the credibility and trustworthiness of the study; and, (3) the fact that qualitative methodologies usually do not seek to collect quantitative data to assess the number or proportion of people in a population who have a particular characteristic or who benefit from a specific program, which in many instances is the main concern of program funders and policy makers.

Perhaps the most important limitation of qualitative research is the need to trade-off depth over breadth [2, 5]. It is true that qualitative methods allow for much more flexibility than quantitative methods but collecting and analyzing qualitative data can take an enormous amount of effort, resources, and time, and therefore samples in qualitative research tend to be small, and not necessarily representative of a population. However, representativeness is also a challenging topic for quantitative research, with its significant issues in areas such as participation, accuracy, and ability to retain and follow subjects over time. Indeed, qualitative research commits to working with individuals and organizations and invests considerable time and energy in establishing and maintaining a strong relationship with participants. Yet, it can be argued that this is one of the main threats to the validity of qualitative research, the fact that it is too close to the participants to keep the necessary 'distance' to avoid compromising objectivity.

6.8 Enhancing Rigor in Qualitative Research

Because results of qualitative research are so intrinsically dependent on the researcher's ability to record unbiased data, several suggestions are offered here to increase the likelihood of adequate data and data analysis procedures.

One of the critical aspects of qualitative research is checking the accuracy of the findings. There are many ways in which researchers can use, including triangulation, request confirmation from participants (when possible), self-disclose potential biases of the research team, the meaning making process through team discussion

of findings, discussion of discrepant information, submit data and findings for evaluation by independent referees [13].

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