Qualitative Research in Health Care

Observational methods in health care settings

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Chapter 2 and Chapter 3 have described two methods that allow researchers to collect data on what people say. Interviewees and focus group members report their beliefs and attitudes, and they may also talk about their actions and behaviour. One benefit of these methods is that they provide a relatively quick way of gathering this sort of information. However, we cannot be sure that what people say they do is what they really do.[1,2] Observational methods go some way towards addressing this problem - instead of asking questions about behaviour, the researcher systematically watches people and events to observe people's everyday behaviours and interactions.

It can be argued that observation is the basis of all scientific inquiry. It is the building block of the natural sciences: the biologist observes development of cell structures and the chemist observes the changes that occur in chemical reactions. Observational studies of populations or communities are used in epidemiology to look for patterns in the incidence of disease, thereby suggesting possible causes. At the individual level, research in clinical and experimental psychology also relies on observation, as does the monitoring of a patient in a hospital bed.

Qualitative observational methods differ from these types of observation. Observation in the social sciences involves the systematic, detailed observation of behaviour and talk. One of the crucial differences between this type of observation and that conducted in the natural sciences is that in the social world those we observe can use language to describe, reflect on, and argue about what they are doing. This shared language and understanding of the social world makes social science research very different from the observation of laboratory rats or electrons. Unlike the natural sciences, it tends to be *naturalistic* in that people are studied in situ with minimal interference by the researcher.[3]

Observational techniques are most frequently employed in the branch of social science known as *ethnography* (literally, "the study of the people"). The premise underlying ethnography is that in order to understand a group of people, the researcher needs to observe their daily lives, ideally living with, and living like them. As Goffman put it, to "submit oneself in the company of the members to the daily round of petty contingencies to which they are subject".[4] Ethnography emphasises the importance of understanding the symbolic world in which people live, seeing things the way they do and grasping the meanings they draw on to make sense of their experiences. To do this, ethnographers work in the same way as the anthropologists who study remote tribes or cultures, learning to understand the language, concepts, and practices of the group being studied.

Ethnographic research often combines observational methods with analysis of data from other sources, such as documents or interviews, but observational methods can be used exclusively. While this chapter is concerned primarily with observational methods used in qualitative research, many of the examples provided come from ethnographic studies of health and health services that have used observation alongside other research methods.

Observational methods in health and health services research

One major influence on ethnography was the so called "Chicago School" of sociology, whose members systematically observed the lives of different, often marginal or deviant social groups in that city such as gamblers, crooks, drug addicts and jazz musicians from the 1920s onwards.

Early examples of the use of observational methods in health and health services research tended to mimic the ethnographic model of the Chicago School. For example, Roth's pioneering study of a TB sanatorium developed the concept of the "patient career" - a series of stages that the patient passes through during treatment - and the idea of "timetables" that structure the treatment process for both patients and staff.[5] In the UK, there have been a number of observational studies of accident and emergency (A and E) departments. Jeffery documented the categorisation by staff of patients into the "good" and the "rubbish", the latter consisting of drunks, tramps, para-suicides and other patients who, because of the conflicting demands and pressures on staff, were seen as inappropriate attenders at A and E.[6] Dingwall and Murray developed and extended this model using observation and interviews to examine how children were managed in A and E.[7] In another study, Hughes observed reception clerks' use of discretion when prioritising and categorising A and E attenders.[8] These studies provide clear insights as to how and why patients are managed as they are in such settings. The behaviour of staff in categorising and labelling patients was so embedded in the organisational culture that only an outsider would have considered it noteworthy. It is unlikely that interviews alone would have uncovered the patient typologies used by staff and the different patterns of care they provoked.

Other observational research has been used to develop explanations for relationships or associations found in quantitative work. Bloor's observational study of ear, nose and throat (ENT) surgeons was designed to complement a statistical analysis of variations between areas and surgeons in rates for childhood tonsillectomy.[9] Bloor systematically analysed how surgeons made their decisions to operate and discovered that individual doctors had different "rules of thumb" for deciding whether or not to operate. While one surgeon might take clinical signs as the chief indication for surgery, another might be prepared to operate in the absence of such indications at the time of consultation if there was evidence that repeated episodes of tonsillitis were affecting a child's education. More recently,

Hughes and Griffiths observed cardiac catheterisation clinics and neurological admissions conferences to explore how decisions about priorities were made when resources were constrained.[10] They showed that patient selection differs dramatically between the two specialties and suggested that this can be explained by the way rationing decisions are made in each. They showed that in cardiology, decisions tend be framed around the idea of poor prognosis or unsuitability of the patient - "ruling out" - whereas in neurology, greater weight tends to be placed on "ruling in" - identifying factors that might make an individual patient especially deserving of help. These analyses begin to explain why different types of patients come to be treated and might be helpful in designing more explicit priority-setting systems in future, which are, nonetheless, rooted in clinical routines.

Alongside research on the everyday work of health professionals,[11-13] observational methods have been used to look at other, crucial members of the health care team - for example, the clerks who deal with inpatient waiting lists.[14] This research, based on extended periods spent observing the admissions office in a district hospital, uncovered how surgical and administrative preferences dictated how and when patients were selected from surgical waiting lists. It demonstrated that waiting lists did not operate as a queue, following the rule of "first come, first served"; rather different admission decisions were informed by such things as the sorts of cases needed for teaching medical students, or the ease with which patients could be contacted. The notion of a "store" of patients from which staff constructed operating lists (rather than a simple queue) derived from this research, has major implications for the design of effective policies aimed at reducing waiting times.

There is also a growing body of more explicitly policy-oriented observational research. Strong and Robinson's analysis of the introduction of general management in the NHS in the mid 1980s involved the researchers sitting in on management meetings and conducting lengthy interviews with those involved in the transition to the new-look NHS following the Griffiths Report.[15] More recently, under the auspices of the Economic and Social Research Council's Contracts and

Competition programme, observational methods were used to look at the relative importance of relations built on trust versus more adversarial relationships in negotiating effective contracts for health services in the internal market of the first half of the 1990s.[16]

Using observational methods: access to the field and research roles

The first task in observational research is choosing and gaining access to the setting or "field". Occasionally, access to the setting leads to opportunistic research - Roth happened to have TB when he conducted his research on life in a TB hospital - but few researchers have it this easy (or difficult). Most have to decide on the type of setting they are interested in and negotiate access. The choice or sampling of a setting is typically purposive, as in most qualitative research. The idea is not to choose a setting in order to generalise to a whole population (as would be the case in a statistical sample), but to select a group or setting, usually informed by prior knowledge and theoretical work, which is likely to demonstrate salient features and events or categories of behaviour relevant to the research question. Hughes and Griffiths deliberately selected the very different settings of a neurology and a cardiology clinic as the basis for their research on micro-level rationing to allow them to look at two contrasting areas of clinical practice where significant resource constraints apply.

Access to a setting or group is usually negotiated via a "gatekeeper", someone in a position to allow and, often, to facilitate the research. In medical settings, this may involve negotiating with several different staff, including doctors, nurses, managers or members of hospital boards. This first point of contact is important: she or he may be seen to sponsor or support the research and this can affect how the researcher is perceived by the group. Once "inside", in the initial phases of the research, there may be problems striking up sufficient rapport and empathy with the group to enable the research to be conducted. The researcher may be expected to reciprocate the favour of having been granted access. It is not uncommon for observers to become embroiled in the life of the ward, clinic or the general practice, to the extent of being asked to assist with clerking patients, running errands, or simply holding a nervous patient’s hand.

It is important to consider the characteristics of the researcher as well as those of the group or setting, as this too influences the process of data collection: being male or female, young or old, na•ve or experienced, can affect the interactions between the researcher and the researched.[17-19] Once accepted by the group, there is the problem of avoiding "going native", that is becoming so immersed in the group culture that the researcher either loses the ability to stand back and analyse the setting, or finds it extremely difficult or emotionally draining to conclude the data collection.

The observer may adopt different roles according to the type of setting and to how access was obtained. Some health care settings, such as the A and E department, are semi-public spaces, and it may be possible to adhere closely to the role of detached observer, unobtrusively watching what goes on. However, the presence of an observer, particularly in more private settings, may stimulate modifications in behaviour or action - the so-called Hawthorne effect[20,21] - although this effect seems to reduce over time. Those being observed may also begin to reflect on their activities and question the observer about what they are doing.

The impact of the observer on the setting can be minimised by participating in the activities taking place while observing them. Sometimes this is done covertly, as in Goffman’s research on the asylum where he worked as physical education instructor, or in Rosenhan’s study[22] where observers feigned psychiatric symptoms to gain admittance to a psychiatric hospital. There are important ethical issues in such research - notably that of informed consent. Covert research roles may be justified in certain circumstances such as researching particularly sensitive topics or difficult-to-access groups. Most research in health care settings is overt, although the extent to which all members of the group know about the research may vary. For example, staff and

patients (and sometimes staff but not patients) may be aware that observation is taking place, but they may not know the specific research questions or areas of interest. Dingwall has suggested that such research often entails continual, informal negotiation of access and consent, although he concedes that this may not be feasible or practical in all settings.[23]

Recording observational data

Observational research relies on the researcher acting as the research instrument and document the world she or he observes. This requires not only good observational skills, but good memory and clear, detailed and systematic recording. The research role adopted, whether covert or overt, participant or non-participant, can influence the process of recording. Sometimes it is possible to take notes or record information in the setting, at others times this may be impractical or off-putting. Remembering events and conversations is crucial, and is a skill that requires practice. Memory can be aided by the use of jotted notes made where possible during observation (one way of making such notes is to find excuses to leave the setting for a few minutes to write up - frequent trips to the lavatory are often used for this). These notes record key events, timings, quotes or actions. The recording of observational material can be structured around a list of items to observe and describe, for example, the layout of the setting, the character of each participant, or a specific set of activities. Silverman used such an approach in his study of paediatric cardiology clinics. Having observed ten clinics, he developed a coding form for recording "disposal" decisions, which covered the factors that appeared, on the basis of these initial observations, to be involved in those decisions - things such as clinical and social factors, and how and when decisions were communicated to patients.[24]

Another approach is to focus on "critical incidents" - discrete events or specific contexts - and to describe and document these separately.[25] However they are taken, it is essential that field notes are written up in full as soon as possible afterwards. These are detailed, highly descriptive accounts of what was observed, which provide a chronological account of the events, and a description of the people involved, their talk and their behaviour. It is important that concrete descriptions are recorded, and not simply impressions. Accordingly, there are conventions for denoting different types of observation, such as verbatim quotes from conversations, non-verbal behaviour and gestures or spatial representations. In addition, the researcher needs to document his or her personal impressions, feelings and reactions to these observations. These more reflexive data are typically recorded separately in a field diary documenting the progress of the research.

In observational research, is it important to consider the representativeness of periods spent in the chosen setting. It is seldom possible or feasible to observe the setting "round the clock", but it is important to spend as much time as possible with the group being studied to ensure adequate coverage of different time periods. This may mean making sure that data are collected on different days or at different times. Some researchers choose to sample random blocks of time, or observe particular aspects of the setting, or particular individuals for a fixed period and then move on - say, observing the clinic from the reception area then moving to the nurses' station. It is a mistake to think that the observer will necessarily capture "everything". Even the using of several observers, or

video/audio taping cannot ensure this. The combination of the practicalities of observation, recall and perception means that it is simply not possible to remember or record everything. Nonetheless, as far as possible, the researcher's task is to document in detail what happened.

This descriptive raw material cannot and does not provide explanations - it is the researcher's task to sift, decode and make sense of the data. This analytical process usually begins during the data collection phase of the research: in the example of Silverman's study, ideas about the initial data informed the development of the coding sheet.[24] Emerging categories or tentative

hypotheses about the data may be tested during the fieldwork; more cases or examples (or contradictory ones), may be sought.

Theorising from observational research

The analysis of observational data is described in more detail in Chapter 8. In essence it entails some form of content analysis, and an iterative process of developing categories from the field notes and testing and refining them to develop theories and explanatory models. Different methodological and theoretical perspectives can influence this analytical process and the way in which observational data are treated. These different stances are complex and hotly debated, and there is insufficient space to describe them in detail here; interested readers may wish to consult the references supplied.[26-28]

Quality in observational studies

Observational research relies on the researcher to act directly as the research instrument. The quality of observational studies depends more than most methods on the quality of the researcher. This places a particular responsibility on the researcher to provide detailed descriptions of data collection and analysis. Details about how the research was conducted are crucial to assessing its integrity, for example, enabling the reader to know how much time was spent in the field, the researcher's proximity to the action or behaviour, how typical the events recorded were and whether any attempts were made to verify the observations made (such as observing comparable settings or seeking out other sources of information, such as documents). It may be possible to check the verisimilitude (the appearance of truthfulness) of an observational study against previous research in similar settings or with similar groups, but perhaps the ultimate test for observational research, is congruence:[29] how far the research provides the necessary instructions or rules which might enable another researcher to enter and pass in that setting or group.

Chapter 8 revisits some of these issues concerning quality in qualitative research. Done well, that is systematically and carefully, observational studies can reveal and explain important features of life in health care settings. The very best, like Goffman's classic study of the Asylum,[4] can generate insightful and enduring concepts that can be applied to other settings and that add to our knowledge of the social world.

Further reading

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