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The Essentials of NURSING AND HEALTHCARE RESEARCH

Edited by

Ruth Taylor

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8

QUALITATIVE AND QUANTITATIVE RESEARCH APPROACHES

MARY ADDO AND
WINIFRED EBOH

Chapter learning outcomes

On completion of Chapter 8, you will be able to:

- 1 Identify the key components of qualitative and quantitative research approaches.
- 2 Understand what is meant by qualitative and quantitative research and their relevance to your practice.
- 3 Outline the differences between qualitative and quantitative research.
- 4 Appreciate the importance of the types of knowledge that both research approaches can provide to inform your nursing practice.
- 5 Discuss the types of topics that can be researched using qualitative or quantitative research approaches.

Key concepts

Qualitative research, quantitative research, research methodologies and methods, nursing knowledge.

INTRODUCTION

With this chapter we aim to illuminate the value of understanding the focus of qualitative and quantitative research approaches, their relevance to nursing and healthcare practice, and the types of knowledge that each research approach provides to enable evidence-based patient care and service delivery. It is therefore important that you do not rest on a particular type of knowledge to inform your understanding of nursing practice regardless of your particular field of specialty, but instead think widely about the sources of evidence to inform your decision making in your practice. (Look back to Chapter 7 to remind yourself of some of the key concepts relating to nursing knowledge that will also inform your thinking as you work your way through this chapter.)

We recognise the depth and breadth of knowledge associated with understanding the concepts associated with qualitative and quantitative research approaches. Considering this challenge, this chapter provides you with an overview of the two key research approaches used in nursing and healthcare research, with examples relating to the kinds of practice experiences you will encounter. You will have the opportunity to get to grips with some of the words that can seem intimidating – phenomenology, quasi-experimental, survey, and ethnography for example. We address these so that you will gain a broad overview of the key approaches, as well as have an opportunity to consider them in more depth later in the book.

Do not worry – you will soon be as enthusiastic as we are about the various approaches to research and your understanding of them will broaden your awareness of the wealth of evidence that exists to help inform your practice. As a registered nurse (and as a student nurse!) you are expected to have knowledge of different types of research and their relevance to your practice (NMC, 2010). Your research literacy will enable you in your decision making processes to utilise research findings that will inform the care you give to patients.

The chapter starts by providing a general overview of qualitative and quantitative research approaches – discussing the purpose of the approaches and the types of research questions that might be answered with those approaches, and demystifying some of the language associated with them. As you use the language of research, you will become more comfortable with its meanings and this will enable you to develop competence in your reading of research. After all, we all want to be able to pick up a research article and determine its usefulness for our practice!

WHAT IS QUALITATIVE RESEARCH?

To make an obvious statement here, as a healthcare professional you must work with people, and as you do so you must also try to understand their experiences so as to offer compassionate person-centred care. Developing an evidence base relating to the human aspects of the patient experience enables us to operate more effectively. Qualitative research seeks to explore human experiences in order to understand the reasons behind the behaviour and meanings embedded in those experiences (Holland and Rees, 2010). The type of knowledge that qualitative research provides for nursing and healthcare practice gives us an understanding of what it is like to have a particular experience: note that quantitative research cannot do this (see Creswell, 2007: there is more discussion on this later in the chapter).

Gaining insights into the world of ‘others’ – whether patients, their families, carers, or the other professionals you work with – can broaden your thinking and lead to more thoughtful action through the insights gained (Van der Zalm et al., 2000). For example, you cannot measure what it is like to live with or experience emotional distress with a ruler or a tape measure, although various attempts to develop scales to help us measure this sort of phenomenon have been made. According to Myers (2000: 4) ‘Conducting research with people who are dealing with personal experiences, cancer or addictions and describing such complex interpersonal investigations are skills that are not possible to investigate with structured instruments. If a researcher were to focus on measuring those phenomena it is likely that he or she would never really come to understand the process that is the real focus of the inquiry’.

Many questions that nurses face in their day-to-day work with patients and others are not just about the numbers (quantity) of incidents that happen (the rate of discharges for example). It is also important for nurses to address questions such as ‘What is it like for nurses to work with patients who generate strong emotions in the nurse?’ or ‘How do patients on admission feel about the communication skills that nurses use to allay their fears?’ These sorts of questions relate more to trying to understand the perceived quality of care experiences from a patient perspective, rather than the actual amount (quantity) of care received. Therefore, when we need to understand what it means to have lived a human experience of illness or a disease condition that cannot be measured by predictive instruments (quantitative research) that is when we also need to embrace alternative ways of knowing (qualitative research).

Take a look at Activity 8.1 below. This activity aims to introduce you to the relevance of qualitative research in your own practice.

Think of an area of practice that you are particularly interested in – one that relates to the experience of patients or carers. Undertake a search for one article that relates to this area. We have provided two examples of the types of search terms that you could use to enable you to find an article:

- Patient experience + Pain + Breast cancer
- Carer experience + Epilepsy + Child

(Continued)

(Continued)

Once you have found the article, take some time to read it in detail. Don't worry if you come across words that you are not familiar with as we will come onto these in this and later chapters. Jot down some notes on the following thought-points:

- What is the researcher aiming to find out in the study?
- What tools did the researcher use within the study (e.g. interviews)?
- What are the key findings from the research and their relevance to your own practice?
- Are there any words or concepts (relating to the research approach) that you are unsure about? Make a list of these as learning points to come back to.

While you may not have been able to fully understand all aspects of the article, you will have been able to see that qualitative research does indeed help us understand the experiences of particular people in particular situations or contexts. You can save this article as you may wish to go back to it at the end of the chapter and 'fill in the gaps' in relation to the areas that you identified for further learning (or use it as you work your way through subsequent chapters). You can use the techniques that you have developed through your learning in Chapters 4 and 6 to keep track of your articles and reflect on your learning so far.

We will now move on to examine some further detail on qualitative approaches. As we have already said, you will have an opportunity to expand on your knowledge of these approaches as you progress through the book, so keep in mind that this chapter is an introduction and aims to equip you with an initial understanding of the concepts. Qualitative research has the following properties (Gerrish and Lacey, 2010):

- It is *inductive*, which means that the researcher collects data relating to the phenomenon under investigation (e.g. the inpatient experiences of mental health service users) and develops theory from the data or the situation.
- It is *descriptive* in nature in that the research process allows for a detailed description of the phenomenon (e.g. the experiences of student nurses in clinical practice).
- It is *interpretive* in that the researcher offers one interpretation of the meaning of the data.
- It enables the investigation of human experiences in a diverse range of social contexts.
- It allows the researcher to construct meanings out of people's experiences as lived.

There are different types of qualitative research (see below for a brief overview of the three main types).

TYPES OF QUALITATIVE RESEARCH

Phenomenology

Phenomenology is a term that covers a range of research approaches that are derived from similar, but different, philosophical perspectives. You will come across the

works of philosophers such as Husserl, Heidegger and Gadamer, with each offering a view on the way in which the researcher looks at the world. For example, Husserl suggests that the researcher should 'bracket' their experiences, knowledge and attitudes (i.e. set them aside so they do not interfere with the research process). Heidegger, on the other hand, takes the view that the researcher is an inherent part of the research process, and that therefore their knowledge, attitudes and experiences can be taken into the research process (so long as this is clearly articulated within the research itself). Phenomenology aims to investigate the lived experiences of people within the particular context of that experience. The researcher investigates the phenomenon (the particular lived experience) through the people who have had that experience. Data collection methods are normally conducted via in-depth interviews and other verbal or written narratives. Data analysis approaches allow for interpretation of the narratives and would normally be presented as themes and categories. There are various types of phenomenology, including descriptive phenomenology and interpretive or hermeneutic phenomenology.

Example of a research question: What is the lived experience of the daughters of women with breast cancer?

Grounded theory

Grounded theory aims to generate theory by concurrently gathering and analysing data. It is often used to undertake investigations into areas that have not previously been investigated (or are under-researched). Grounded theory can focus on the development of knowledge relating to the ways in which social interactions take place and how these interactions are interpreted within the field, and can therefore shed light on the ways in which these social interactions can be enhanced for the benefit of particular practice situations. Data collection is usually undertaken using in-depth interviews and participants are selected on the basis that they can talk about the phenomenon under investigation. With grounded theory, the people who participate (the sample) will often develop over the course of the research study, with participation sought from those who can describe the issues emerging from the initial interviews. The analytical process is one that is ongoing and results in the development of categories (that emerge as the collection of data progresses).

Example of a research question: What are the perceptions of children's and young people's nurses of their role in caring for patients and their families with cystinosis?

Ethnography

Ethnography aims to study culture and cultural groups through the observation of behaviours, rituals, customs and practice. This observation can take place either overtly (i.e. with the knowledge of the people under investigation) or covertly (i.e. without their knowledge). By this stage you will probably already be thinking about the considerable ethical issues associated with undertaking a research study without the knowledge of the participants – but it has been done! The process of

undertaking an ethnography allows the researcher to offer an interpretation of the ways in which the cultural context impacts on people's behaviours and practices within that context. Data collection takes place by the researcher going into the specific 'field', undertaking observations and engaging in discussion/questioning, taking field notes, and potentially undertaking interviews. Data analysis commences with the field notes (where the researcher starts to write down their ideas, interpretations and descriptions of what they see and hear).

Example of a research question: How is patient-centred care enacted in a particular forensic unit?

Each of these research approaches has its own philosophical beliefs and values about doing research. Remember your learning from Chapter 7 when you had to consider the overarching philosophical perspectives relating to research? As you will come to see in subsequent chapters, these philosophical perspectives are important for your understanding of qualitative research approaches – they provide a standpoint from which a researcher views the world and therefore impact on both the type of questions and the investigatory approach that is used for a particular research study. At the heart of qualitative studies lies meaning-making and interpretation of the data collected about the phenomenon under investigation. For example, as alluded to above, one approach that can be used is hermeneutics. Hermeneutics is defined as the science of interpretation of oral or written text and serves the purpose of illuminating our thoughts and understanding by enabling new insights and meaning to be gained about a specific phenomenon. Through this process of illumination and the development of understanding, our previous standpoint may shift in relation to the phenomenon in question to a new and different level (Cohen, 2000).

As you will have gathered qualitative research uses human speech or written data, rather than numbers, as is the case in quantitative research. The sample size (simply put, the number of participants selected from the total population using sampling techniques) is usually small (Cohen et al., 2007) because of the depth and richness of the data generated. Think about when you have conversations with your friends or family about something that is of real interest to you all. If you were to write down the conversation, it would probably run to pages of text. When researchers ask people to participate in their studies, they will invite people who have experienced the phenomenon in question (e.g. domestic violence) and therefore those participants are likely to have a lot to say – thus creating a depth and richness of data (the words). Studies are also undertaken in the research participants' natural environment or settings or in a place of their choosing in order that they are more likely to feel comfortable and at ease in that environment (Denzin and Lincoln, 2005).

As you have seen, data collection in qualitative research requires the researcher to use one or more of a number of different types of data collection methods, such as in-depth interviews, semi-structured interviews, unstructured interviews, focus groups, conversational analysis, participant observations, and videoing. These data collection methods are sometimes termed *subjective* in that the data are open to interpretation and are usually the views or perceptions of each participant. The purpose of qualitative data collection is to gather rich, descriptive data that, once analysed, will enable the researcher to provide a description and/

or interpretation of the phenomenon in question (Green and Browne, 2005). Data analysis for qualitative research can take a number of forms but should always be systematic, rigorous, and appropriate to the philosophical framework. As you will see, the decisions that are made regarding methodology (perhaps phenomenology), data collection method (perhaps in-depth interviewing), and analysis (for example the use of Collaizi's seven steps – you can look that up if you wish, but you will get the chance to consider this and other analytical approaches in later chapters) all come together through a systematic knowledge-based approach to the development of a strong research proposal. You might like to work together in a small group to undertake Activity 8.2.

You may wish to undertake this activity in a group, but you can do it alone if you wish. Go back to the article that you chose to look at in Activity 8.1. Take turns in your group to describe the following:

- The methodology used in the research study.
- The data collection method(s) used.
- The analytical framework used.

Once you have all had a turn, discuss the following thought-points in your group:

- What makes the studies 'qualitative' in nature?
- What kinds of research questions can qualitative research provide 'answers' to?
- How is the qualitative nature of the studies reflected in the methodologies, method and analytical frameworks?
- What are the key features of qualitative research that you have identified so far?

As you will have seen from the studies you discussed as a group, qualitative research can be of a sensitive nature. For example, a study that investigated mental health service users' experiences of sexual and relationship issues uncovered personal information through semi-structured interviews (McCann, 2010). Later in this book you will have the chance to explore the ethical issues associated with undertaking research of any kind (in Chapter 13 which looks at ethics in healthcare research). Here we want to emphasise that the ethical code of practice of the researcher requires special consideration in order not to bring psychological or emotional harm to research participants. In addition, the ethical issues associated with qualitative research require the researcher to make certain that the research is undertaken with rigour which will ensure that the findings are trustworthy and credible. What we mean here is that the research user (for example, the nurse who wishes to implement the findings of a study in practice) can trust that the research has been undertaken in an appropriate way throughout, and that the findings are dependable within the context of qualitative research.

The value and strength of qualitative research lie in helping you to ascertain people's experiences through their exploration in a given social context. It provides thick, rich, and meaningful insights into the phenomenon being studied (Polit and Beck, 2010), and helps in giving a voice to the less articulated knowledge embedded in human experiences (Dunniece, 2002). When you come to Chapter 11 on qualitative research, you will see that the research approach adopted to answer the research question depends on the nature of the topic and the type of data needed.

WHAT IS QUANTITATIVE RESEARCH?

Now that you have considered some of the ways that research can help nursing and healthcare practitioners begin to understand aspects of the human experience, we shall move on to look at quantitative research, which aims to provide evidence relating to clinical interventions and other situations through the collection of numerical data and their subsequent statistical analysis. Quantitative research involves formal *objective* information gathering about the world through the use of measurement tools such as validated questionnaires, to statistically quantify the phenomenon being studied. It can be used to describe and test relationships between various factors in order to examine cause-and-effect relationships (Punch and Punch, 2005). Quantitative researchers will use large samples of participants with the aim of generalising findings to encompass the wider population – what this means in simple terms is that the findings from a quantitative study often aim to be relevant and applicable across the wider population rather than simply those in whom the research was undertaken (the latter is often the case in qualitative research). Quantitative studies involve the use of statistics to describe the findings and enable the research user to make judgments about a study's usefulness in practice. Activity 8.3 aims to give you the opportunity to consider the different kinds of research questions that can be addressed quantitatively (as opposed to qualitatively).

ACTIVITY 8.3

Do another search for a research article that describes a quantitative study in an area of interest (perhaps relating to the qualitative article that you accessed earlier). Consider the following questions and write down your initial thoughts:

- What is the aim of the research (or the research question)?
- What makes the study a quantitative study? For example, is the study aiming to determine the measurable impact of an intervention on the health outcomes of a group of patients?
- Which data collection and data analysis approaches were used? (Do not worry if you feel a little lost with the statistical analysis – later chapters will enable you to engage constructively with the data presented in quantitative studies.)

The most common quantitative research designs include:

- Experimental designs, ranging from:
 - randomised controlled trials (RCTs) in which an experiment is conducted where participants in the study are randomly assigned to the intervention group or a control group;
 - pre-/post-test studies where data are gathered prior to the intervention with the same approach to data collection used to gather data following the intervention – allowing for comparisons to take place between the two;
 - quasi-experiments where it is not possible to undertake a randomised controlled trial – for example, where it would not be possible to introduce an intervention and also have a control group for practical or ethical reasons.
- Surveys including:
 - descriptive – used to describe a population and to determine whether there may be links or trends between variables (a variable is something that can be measured and that can sometimes change over time or in different situations – e.g. blood pressure, age, smoking status);
 - correlation – used to determine whether there are relationships between demographic data (e.g. age, gender) and behaviour (e.g. exercise behaviour);
 - comparative studies – used to determine whether behaviours/variables change over time and in relation to interventions and/or demographics);
 - longitudinal – studies that take place over a longer period of time;
 - cohort studies – studies that follow a particular group of people over a period of time.

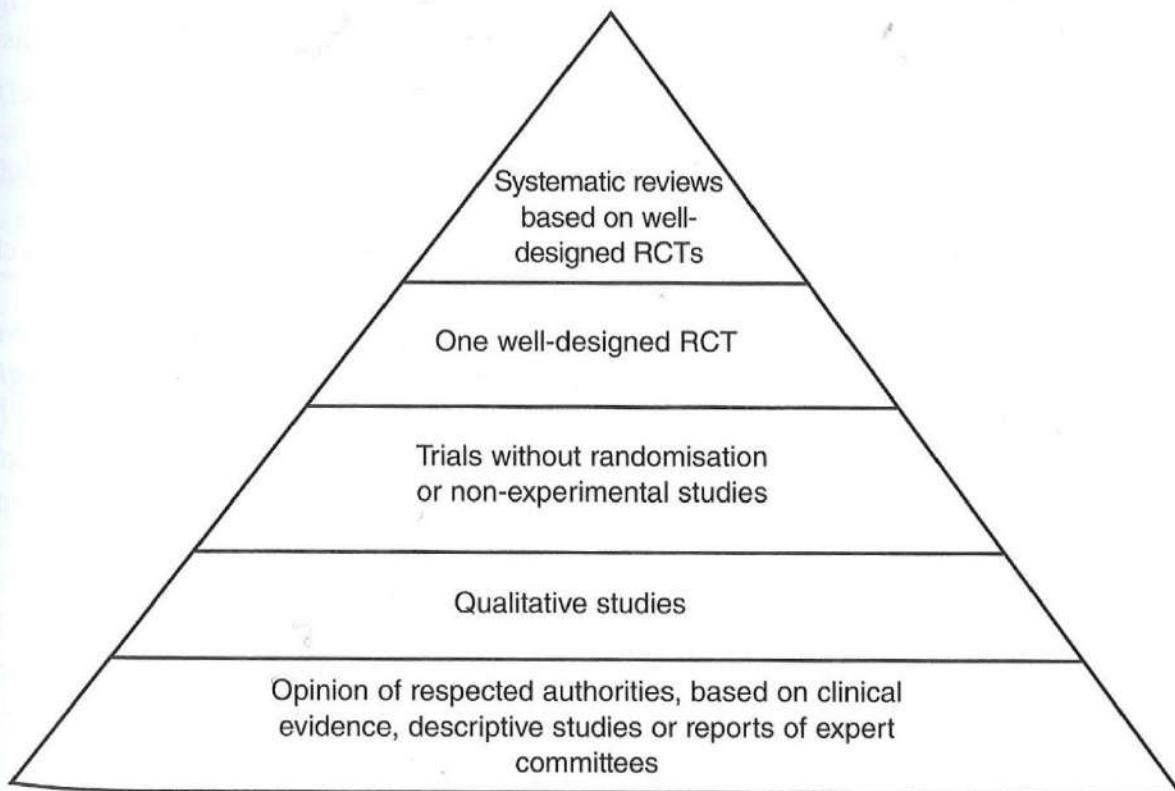


Figure 8.1 An example of a hierarchy of evidence (source: Holland and Rees, 2010)

To some extent all of these designs have a common aim, which is to produce evidence that is tangible, concrete and measurable, justifying why – when considering the hierarchy of evidence – quantitative studies feature high on the list (second to systematic reviews) as shown in Figure 8.1.

This hierarchy of evidence will vary depending on different schools of thought. However, despite these differences of opinion quantitative research remains high on the list of evidence. The rigour of research studies is crucial for all practitioners to consider when selecting evidence to inform practice. Quantitative researchers will use validity (whether the data collection tool, for example, a questionnaire, measures what the researcher says it measures) and reliability (whether the data collection tool consistently measures what it sets out to measure) to measure rigour, whereas (as briefly discussed already) qualitative researchers will use trustworthiness, confirmability, transferability, and credibility (MacNee and McCabe, 2008). The measurements of validity and reliability as considered for quantitative research will be discussed in more detail in Chapter 12.

OBJECTIVE AND SUBJECTIVE MEASUREMENTS IN QUALITATIVE AND QUANTITATIVE RESEARCH

The main aim of quantitative research is to measure or quantify a phenomenon and all data or variables identified to be analysed in numerical form (objective measurements). Making sense of quantitative data requires analysis manually or using a statistical package such as Statistical Package for the Social Sciences (SPSS). There are four types of measurements used to categorise quantitative data. These are listed here with examples of the kinds of data that the terms refer to:

- *Nominal or categorical scales*: Labels (or names) such as gender, ethnicity and religion which have no intrinsic order as such.
- *Ordinal scales*: Data that have named categories and are ordered, such as the honours classifications of an undergraduate degree from 1st class Honours to 3rd class Honours.
- *Interval scales*: Numbers that have a specific order with measures that are equal between each occurring value. An example of this is a Likert scale measuring a respondent's agreement or otherwise which can have values from strongly agree (5) to strongly disagree (1).
- *Ratio scales*: Considered the strongest scale as it has an absolute zero starting-point, enabling the distance between the points to be compared with each other as well as proportionally (e.g. weight, height, blood pressure, pulse rate).

The reason why it is necessary to have some understanding of the types of data that can be gathered quantitatively is that this allows you to determine whether the statistical tests used in a particular study were appropriate for the type of data gathered.

In contrast, qualitative research measurement is subjective in nature and aims to shed light on the hidden meanings attributed to particular human experiences in various social situations. As you have seen, it does this through interpretation and

meaning-seeking, by generating categories and themes from the data collected so that the phenomenon being studied can be described (Guba and Lincoln, 2005). Qualitative research measures such as interviews and observations aim to measure, through insight and understanding, unquantifiable concepts such as 'What is compassionate caring?', and 'How does compassionate caring vary in different nursing situations?'

There will be times when qualitative and quantitative approaches can both be utilised in a single study. For example, the use of standardised measures like questionnaires to collect data relating to the clinical outcomes of a particular healthcare intervention could sit well alongside the use of interviews to investigate patients' experiences of that intervention.

ASSESSING THE QUALITY OF RESEARCH STUDIES

We have already briefly discussed some of the terms associated with the quality of research studies (reliability, validity, credibility). As a research user it is crucial that you really understand the meanings of these terms and how significant these are in your assessment of the usefulness of a particular piece of research for practice. Undertake Activity 8.4 below – this activity aims to consolidate your early understanding of the terms used and help you identify any further learning needs.

Take both of your research articles from Activities 8.1 and 8.3 and do the following:

- List the terms used within each of the articles which indicate that the rigour of the research study has been thought through.
 - After doing this define those terms and think about whether they were the appropriate approaches for use within the individual studies.
-

ACTIVITY 8.4

Many published research studies painstakingly account for the instruments used to gather data. For example, a study may consider whether the data collection tool had been tested in other studies and, if so, whether it was found to be valid and reliable in those other studies. What we are aiming to emphasise here is that the whole research process must be undertaken rigorously (whether the study is qualitative or quantitative) so that the research users (people like yourself who are working in healthcare practice) can be confident that the published research is safe to consider for implementation in practice. A lack of rigour within any study stands the risk of generating unsafe findings which, if used in practice, can put the general public at risk. An example of where published research findings resulted in a risk to the public was research by Dr Andrew Wakefield. Published in *The Lancet* (a reputable medical journal) in 1998, this linked the MMR vaccine with autism, however the study was later found to have

major methodological flaws (Godlee et al., 2011). So, we will look at some of these terms in further detail – if you need to, you can go back to Activity 8.4 and fill in any gaps as you work your way through this short section.

Reliability, as discussed earlier, is concerned with the consistency, accuracy and repeatability of the research tool (Moule and Goodman, 2009). Validity, on the other hand, relates to whether a data collection tool does what it professes to do – for example, does an instrument designed to measure depression assess depression? Rather obviously, any data collection tool that does not measure what the researchers aim to measure could produce findings that are at best irrelevant and at worst unsafe. Every aspect of the research process must be transparent and open to scrutiny by those with a vested interest.

The nature of qualitative research means that reliability and validity are not terms that are usually associated with these approaches. Even with a careful description of participants and settings, such research will not facilitate the production of an exact replication of the study because of the uniqueness of the study population and naturalistic settings (Polit and Beck, 2010). As we have said, in qualitative research various strategies are used by researchers to establish methodological rigour. Trustworthiness in qualitative research indicates the level of rigour by looking at:

- *Credibility*: Do we have confidence in the truth of the data and the research findings?
- *Transferability*: What is the degree to which the findings of the study can be transferred to other contexts or settings?
- *Dependability or auditability*: What is the audit trail that demonstrates the procedural routes to decisions made by the researcher at every stage in the research process?
- *Confirmability*: Does the study demonstrate credibility, auditability, transferability? If so, it can be said to possess confirmability.

You may come across other terms that are used within qualitative research to demonstrate rigour. Keep a list of these in your research journal, alongside their meanings, and you will soon build up your confidence with the terminology.

METHODOLOGICAL DIFFERENCES BETWEEN QUALITATIVE AND QUANTITATIVE RESEARCH

In Chapter 10 you will be looking in detail at the research process in order that you are clear about the way in which any research study should be planned and implemented. What is important for this chapter is to highlight one of the early aspects of the research process – the way in which a researcher will choose the methodology for a project. By understanding this key point, you will be able to draw together your growing understanding of qualitative and quantitative approaches before moving on to other chapters that will build on this knowledge.

Selecting the correct approach and design depends on the question posed or the phenomenon under exploration. Given that nursing and healthcare research can

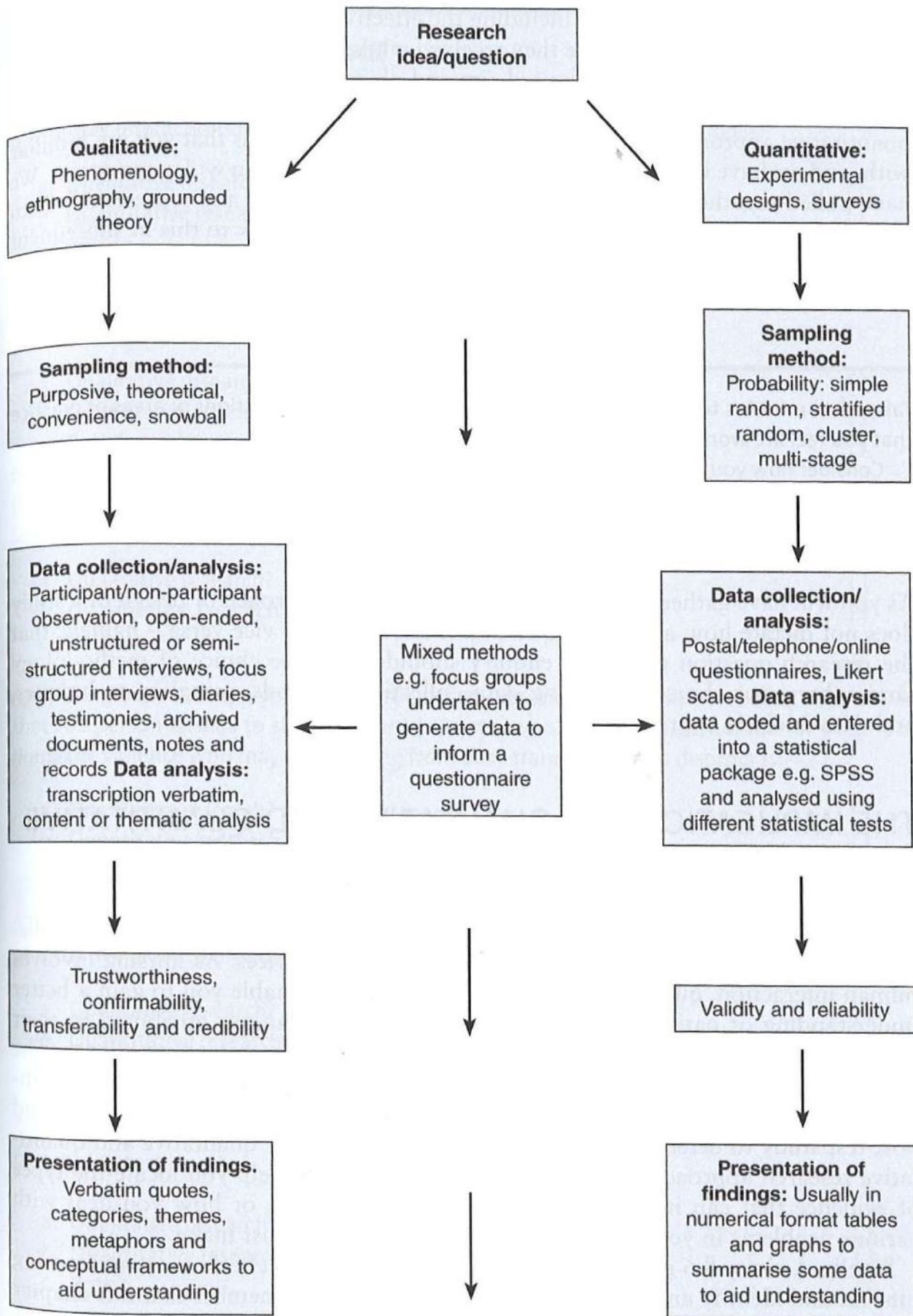


Figure 8.2 Methodologies for qualitative and quantitative research

address many areas of practice including the effectiveness of treatments, or patients' views or experiences of the care they received whilst in hospital, it is important that the methodology fits with the desired aim and objectives of the study.

Figure 8.2 summarises the differences in the methodologies of qualitative and quantitative approaches – already you will be able to see terms that you are familiar with, and we have introduced a number of other terms that you will come across. We have pulled together the key issues addressed in this chapter and represented them in the figure for ease of reference. You may wish to refer back to this in subsequent chapters.

Now complete Activity 8.5 which aims to assist you in consolidating your learning.

ACTIVITY 8.5

Take a few minutes to list some nursing and healthcare-related questions or areas of practice that you feel are worthy of further investigation:

Consider how you would investigate these issues – which methodology would you propose for these investigations and why?

As you will have gathered by now, it is crucial that the approach or design of a study does not dictate how a research question is answered but vice versa – namely, that the research question or line of enquiry should direct the choice of methodology (and subsequent choices regarding data collection methods, sampling techniques, and data analysis approaches).

THE IMPLICATIONS OF QUALITATIVE AND QUANTITATIVE RESEARCH FOR NURSING AND HEALTHCARE

Human experience is complex, and the same goes for the various illnesses and diseases that bring patients to the health and social care services. As nursing involves human interaction, qualitative research approaches will enable you to gain a better understanding of patients' feelings, attitudes and the meanings attributed to their illness, disease and health states or conditions, care, and treatment experience. The quantitative research approach can, for example, demonstrate the benefits (or otherwise) of an intervention that you provide for a patient by doing a pre-test and post-test study to determine what change has occurred. The qualitative and quantitative research approaches will support one another, and help you locate the types of evidence that can inform the care you give to patients, or how you deal with various problems in your practice and the decisions you must make.

Finally, Activity 8.6 provides you with an opportunity to check out your learning thus far and identify any areas for further development. Remember that this chapter aims to give you an overview of qualitative and quantitative approaches and further details will follow in Chapters 11 and 12.

Which of the following are correct?

(Q1) A study of the behaviour of newly admitted patients by observing and recording their day-to-day interactions during their first 72 hours following hospitalisation is:

- a. Qualitative research?
- b. Quantitative research?
- c. Both?

(Q2) Investigating the ways in which nurses are portrayed in the print media by analysing newspapers and magazine articles is:

- a. Qualitative research?
- b. Quantitative research?
- c. Both?

(Q3) Observing whether patients conform to the safety of treatment-prescribed guidelines by counting the number of patients who ignore the guidelines given is:

- a. Qualitative research?
- b. Quantitative research?
- c. Both?

(Q4) Using a written questionnaire with closed (yes and no) and open-ended (information that the person wishes to share in words) questions to survey a large number of victims of domestic violence who may be suffering from post-traumatic stress disorder is:

- a. Qualitative research?
- b. Quantitative research?
- c. Both?

(Q5) Organising a small number of students into a discussion group to study their experience of reflective practice on clinical placement is:

- a. Qualitative research?
- b. Quantitative research?
- c. Both?

(Q6) Testing the relationship between the scores on an intelligence test and scores on a personality test is:

- a. Qualitative research?
- b. Quantitative research?
- c. Both?

(Continued)

(Continued)

(Q7) Observing the effects of using a reward to teach a child to play with other children is:

- a. Qualitative research?
- b. Quantitative research?
- c. Both?

(Q8) Investigating the effects of watching violent films on television by analysing children's drawings after is:

- a. Qualitative research?
- b. Quantitative research?
- c. Both?

(Q9) Conducting an experiment to investigate whether taking regular 15-minute rest breaks during prolonged study sessions in class improves students' performance is:

- a. Qualitative research?
- b. Quantitative research?
- c. Both?

(Q10) Observing the play interactions of nursery school children in the playground using pre-determined items on an observation checklist is:

- a. Qualitative research?
- b. Quantitative research?
- c. Both?

Answers to quiz questions

- | | | |
|--------|-------|-------|
| Q1. C | Q2. A | Q3. B |
| Q4. A | Q5. A | Q6. B |
| Q7. A | Q8. A | Q9. B |
| Q10. A | | |

CONCLUSION

This chapter has focused on two research approaches used in nursing and healthcare research. It has served to help you familiarise yourself with qualitative and quantitative approaches, and the differences and similarities that exist. Examples of nursing

questions that can be answered with these research approaches have been alluded to, and you have had the opportunity to seek out research articles that relate to both approaches in your area of interest and practice. It is important that you see your development of research literacy as a lifelong commitment to quality enhancement in your professional practice – as a practitioner you will be making decisions about the implementation of evidence into practice in all areas of your work. Qualitative and quantitative research approaches complement each other and the key is in knowing the theoretical underpinnings and which type of research evidence to select to help you answer questions regarding the day-to-day nursing experiences you encounter. We hope that we have demystified any fears and confusion you had about understanding qualitative and quantitative research approaches in reading this chapter.

SUMMARY

The critical learning points for your learning so far are:

- Qualitative and quantitative research methodologies are crucial to the development of different types of nursing knowledge to enhance nursing and healthcare practice.
- Knowledge of the difference between qualitative and quantitative approaches can help you understand research findings and their specific uses for your practice.
- There are different criteria for addressing rigour in qualitative and quantitative studies.

FURTHER READING

The following websites have useful resources that you can access to further enhance your knowledge and understanding of qualitative and quantitative research and related issues. They will help inform your university and clinical placement learning and assessment.

Social Research Methods: www.socialresearchmethods.net/kb/qualmeth.php

A useful website covering all research methods and related issues.

Robert Wood Johnson Foundation: www.qualres.org/

A comprehensive website covering all aspects of qualitative research and related issues.

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