

Investigating health services and health: the scope of research

'Would you tell me, please, which way I ought to go from here?', asked Alice.

'That depends a good deal on where you want to get to', said the cat.

Lewis Carroll (1865) *Alice's Adventures in Wonderland*

Introduction

Research is the systematic and rigorous process of enquiry which aims to describe phenomena and to develop and test explanatory concepts and theories. Ultimately it aims to contribute to a scientific body of knowledge. More specifically, in relation to the focus of this book, it aims to improve health, health outcomes and health services.

The book aims to provide an overview of the range of research methods that are used in investigations of health and health services. Ultimately the purpose is to guide the reader in choosing an appropriate research method and design in order to address a particular research question. However, it is not possible to place research methods in a hierarchy of excellence, as different research methods are appropriate for addressing different research questions.

If the research question is descriptive, for example, 'What is the health status of population X?', then a cross-sectional survey of a sample of that population is required to provide population estimates. The survey method will also enable the answers to secondary questions to be estimated for that population (e.g. 'Are men more likely than women to report poor health status?') and certain (non-causal) types of hypotheses to be tested (e.g. 'Men will be X times more likely than women to report good health status'). If the research question is 'Do women have worse health outcomes than men following acute myocardial infarction (AMI)?', then a prospective, longitudinal survey of identified men and women who had suffered an AMI would be undertaken in order to be able to compare their health outcomes over time in the future.

If the research aims to find out information on a topic about which little is known, or is too complex or sensitive for the development of standardised instruments, then

qualitative methods (e.g. observational methods, in-depth interviews and/or focus groups) may be more appropriate (e.g. 'Is there quality of life on long-stay psycho-geriatric wards?'; 'Are there dehumanising care practices in long-stay institutions?'; 'How do doctors prioritise their patient caseload?').

And if the research aims to investigate cause-and-effect issues, then an experimental design is, in theory, required (e.g. 'Do women aged 75+ have worse health outcomes than men aged 75+ following thrombolysis therapy for acute myocardial infarction?'; 'Do patients with osteoarthritis of the knee benefit from physiotherapy?'; 'Are specialists' outreach clinics held in general practitioners' surgeries as cost-effective as specialists' out-patient clinics in hospitals?'). While the double-blind, randomised controlled trial (RCT) is the true experimental design, and most appropriate for addressing these types of questions, there are also situations in which this method is unrealistic, impractical or inappropriate and other well-designed analytic (as opposed to descriptive) methods have to be employed instead (see Chapter 10). For some cause-and-effect questions, the RCT may be the most appropriate research design but it would be unethical to randomise people to interventions that are unacceptable, and the issue must therefore be addressed using other methods, such as a prospective, longitudinal survey of a population (e.g. 'Does drinking spirits increase the risk of heart disease?').

Finally, research methods should not be seen in isolation from each other. A triangulated or combined methodological approach to addressing different facets of a research issue, using different methods which complement each other, is increasingly recommended as a means of establishing the external validity of the research. In the same way in which prospective, longitudinal surveys can inform the results from RCTs, so qualitative research findings can enhance quantitative survey data by placing the latter into real social contexts and enhancing understanding of relevant social processes.

The importance of using triangulated research methods is enhanced by the multifaceted nature of health, and the multidisciplinary character of research on health and health services. This includes investigations by anthropologists, demographers, epidemiologists, health economists, health geographers, health policy analysts, health psychologists, historians, medical sociologists, statisticians and health professionals (clinicians, nurses, physiotherapists, and so on). Specialists in public health medicine play a key role in health services research, as they are equipped with a range of research skills, including epidemiology. In Britain and in some other countries, they also have responsibility for assessing needs for health services in specific geographical areas, and advising purchasers on effective health care. There is a close working relationship between researchers investigating health and health services and health professionals, particularly in relation to the development of measures of clinical outcomes and the appropriateness of health care interventions.

One consequence of this multidisciplinary activity is that a wide range of qualitative and quantitative, descriptive and analytical research methods is available. This diversity should enrich the approach to research design, although there has been a tendency in research on health services to focus mainly on the experimental method. All methods have their problems and limitations, and the over-reliance on any one method, at the expense of using multiple research methods, to investigate the phenomenon of interest can lead to 'a very limited tool box' (Pope and Mays 1993), sometimes with questionable validity (Webb *et al.* 1966), and consequently to a limited understanding of the phenomena of interest.

It is necessary at this point to distinguish between the terms *health research* and *health services research*.

Health research

Health research has been defined in relation to health generally. As well as having an emphasis on health services, it has an important role in informing the planning and operation of services aiming to achieve health (Hunter and Long 1993). As Davies (1991) observes:

“the process [of] obtaining systematic knowledge and technology . . . can be used for the improvement of the health of individual groups. It provides the basic information on the state of health and disease of the population; it aims to develop tools to prevent and cure illness and mitigate its effects, and it attempts to devise better approaches to health care for the individual and the community.”

The broader aspects of health research are described in Chapters 2, 3 and 4 (e.g. in relation to health needs and sociological and psychological aspects of health).

Health systems and health services research

There is no accepted definition of a health system, and it has been variously defined in terms of the structures used to deliver health care, the geographical boundaries of the latter, or the strategies used to attain population health (Nolte *et al.* 2005). Health systems research has thus been defined fairly broadly as: ‘ultimately concerned with improving the health of a community, by enhancing the efficiency and effectiveness of the health system as an integrated part of the overall process of socio-economic development’ (Varkevisser *et al.* 1991).

In Britain and the USA the general focus is on health services research, rather than on health systems research. Health services research is defined more narrowly in relation to the relationship between health service delivery and the health needs of the population: for example, as ‘the identification of the health care needs of communities and the study of the provision, effectiveness and use of health services’ (Medical Research Council, see Clarke and Kurinczuk 1992). While there is an overlap with health research, health services research needs to be translated into action to be of value and should ‘transcend the R (acquiring knowledge) and the D (translating that knowledge into action) divide’ (Hunter and Long 1993).

Each of these definitions emphasises the multidisciplinary nature of health research, health systems research and health services research. Health services research, for example, has been described as ‘a space within which disciplines can meet’ (Pope 1992), and as an area of applied research, rather than a discipline (Hunter and Long 1993).

Within these definitions, the topics covered in Chapters 1, 4 and 5, on evaluating health services, health needs and their assessment (the latter also comes within the definition of broader health research) and the costing of health services, are encompassed by health services research. Chapter 2, on social research on health, and Chapter 3, on quality of life, also fall within both health research and health services research. Not everyone would agree with these definitions and distinctions. For example,

some might categorise the assessment of needs as health research rather than health services research. What is important is not the distinctions and overlaps between these branches of research, but a respect for each discipline in relation to its contribution to a multidisciplinary body of knowledge about health and disease, health systems as a whole and health services.

Finally, it should be pointed out that research on health services is not insulated from the society within which it is placed. It is often responsive to current policy and political issues (see Cartwright 1992), and is thus dependent upon decisions taken by others in relation to research topics and research funding. While it is common for researchers to initiate new research ideas, much of the funding for this research comes from government bodies, who tend to prioritise research and development on a local or national basis. The research topics are rarely value-free. The research findings are also disseminated to members of a wide range of professional, voluntary and management groups. In relation to this multidisciplinary nature, the agenda for research and the consumers of the research findings, it contrasts starkly with the traditional biomedical model of research.

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