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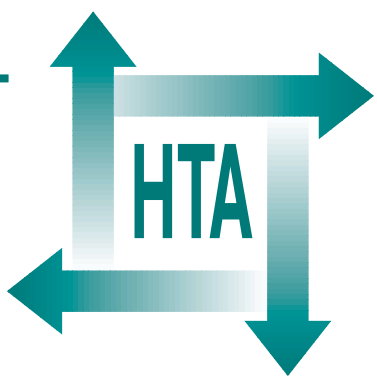
Methodology

Action research: a systematic review and guidance for assessment

H Waterman
D Tillen
R Dickson
K de Koning

Health Technology Assessment
NHS R&D HTA Programme



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Action research: a systematic review and guidance for assessment

H Waterman[1*]
D Tillen[1]
R Dickson[2]
K de Koning[3]

[1] School of Nursing, Midwifery and Health Visiting, University of Manchester, Manchester, UK
[2] School of Health Sciences, University of Liverpool, Liverpool, UK
[3] Royal Tropical Institute, Amsterdam, The Netherlands

[*] Corresponding author

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Initially, six HTA panels (pharmaceuticals, acute sector, primary and community care, diagnostics and imaging, population screening, methodology) helped to set the research priorities for the HTA Programme. However, during the past few years there have been a number of changes in and around NHS R&D, such as the establishment of the National Institute for Clinical Excellence (NICE) and the creation of three new research programmes: Service Delivery and Organisation (SDO); New and Emerging Applications of Technology (NEAT); and the Methodology Programme.

Although the National Coordinating Centre for Health Technology Assessment (NCCHTA) commissions research on behalf of the Methodology Programme, it is the Methodology Group that now considers and advises the Methodology Programme Director on the best research projects to pursue.

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Contents

List of abbreviations

A&E	Accident & Emergency [Department]*
CARN	Collaborative Action Research Network
CCU	coronary care unit*
CDT	community drugs team*
CHD	coronary heart disease
CPDA	clinical practice development accreditation
CRD	[NHS] Centre for Reviews and Dissemination
DGH	district general hospital*
ENP	emergency nurse practitioner*
GP	general practitioner
GRIP	getting research into practice
ITU	intensive therapy unit*
MAU	Medical Admissions Unit*
OAG	oral assessment guide*
PCA	patient-controlled analgesia*
R&D	research and development
RCN	Royal College of Nursing
RCT	randomised controlled trial
RSCN	registered sick children's nurse
TNA	training needs assessment*

* Used only in tables or appendices

Executive summary

Background

Action research is employed in many healthcare settings in the UK but its scope and role in this context is not clear. It is practised under a variety of names and has been applied in many settings since Kurt Lewin coined the phrase in 1947. Its particular strength lies in the coupling of participation and research to action and change.

Objectives

1. To provide a definition of action research.
2. To identify action research projects conducted in UK healthcare settings.
3. To analyse the identified action research in relation to:
   - project aims
   - reasons for choosing action research
   - issues addressed by action research
   - outcomes and impacts
   - strengths and limitations.
4. To develop guidance for the assessment of action research proposals and reports.

Methods

There were four interlinked phases: a preliminary literature search, a systematic literature review combined with a consultative process, and data synthesis. This interpretative systematic review combined data from written reports of action research with primary data collected from focus group interviews.

Fourteen electronic databases were searched. Relevant journals and conference proceedings were handsearched and the project was advertised at research conferences. Over 400 NHS research and development (R&D) managers and 300 action researchers were contacted.

Research reports were included if they:

- were carried out in a UK healthcare setting
- were published after 1974
- demonstrated or indicated an intention to follow a cyclic process in which problem identification, reflection, research, an action intervention and evaluation were interlinked
- indicated that a partnership existed between the action researcher and the participants involved in the change process.

In anticipation of the limitations of the published material, five focus group interviews with participants from included studies and two additional focus groups of action researchers attending an action research conference were carried out.

Data from the studies reviewed were entered into a statistical software package. For closed questions, frequencies were calculated to provide descriptive information; for open questions, content analysis was undertaken. Data from the focus groups were integrated with data from the systematic review. A narrative overview for each of the objectives was produced. Data synthesis was substantively different in the achievement of the sub-objective on the strengths and limitations of action research. Here the studies and focus group interviews were analysed, drawing on a process similar to meta-ethnography. Data were compared and contrasted, and organised into categories from which themes emerged.

Results

The definition

Reflection on the literature and the primary research findings led to the following definition being used in this review.

Action research is a period of inquiry that describes, interprets and explains social situations while executing a change intervention aimed at improvement and involvement. It is problem-focused, context-specific and future-oriented. Action research is a group activity with an explicit critical value basis and is founded on a partnership between action researchers and participants, all of whom are involved in the change process. The participatory process is educative and empowering, involving a dynamic approach in which problem identification, planning, action and evaluation are interlinked. Knowledge may be advanced through reflection and research, and qualitative

and quantitative research methods may be employed to collect data. Different types of knowledge, including practical and prepositional, may be produced by action research. Theory may be generated and refined, and its general application explored through the cycles of the action research process.

It is hoped that the definition will contribute to debate on the role of action research within the healthcare setting. It is expected that it will be refined as the understanding and process of action research evolve.

An overview of healthcare action research in the UK

The search yielded 285 possible studies, of which 59 met the inclusion criteria. Most were conducted between 1988 and 1996. The duration of projects ranged from 1 to 48 months (median 12 months). Nurses formed the largest percentage of active participants (70%) and the majority of projects took place in hospitals (53%). There were 21 funded studies (36%). Interview, questionnaire and observation were the three most common methods of data collection. Qualitative research methods predominated.

Aims, reasons and issues addressed

The primary aims of the included studies were assessment of current situations, development of changes and evaluation of project outcomes. The reasons for choosing action research were participation, facilitation of change and a cyclical process related to change. Issues addressed included professional education, assessment of clinical practice (areas where there was a conflict in clinical practice or a lack of evidence) and assessment of professional roles. The results suggest that action research is frequently selected to understand and resolve complex problems, and that the participatory nature and the process of action research enables the development of relevant and appropriate practices, services and organisational structures.

Outcomes and impacts of included studies

Outcomes and impacts varied and were dependent on where in the research process they were assessed (e.g. during the problem identification, planning or evaluation phase). Immediate outcomes from group action produced such things as clarification of issues and identification of need (problem identification phase), development of innovation and preparation for change (planning phase), and education, change and ownership (evaluation phase). Personal and professional developments were noticeable outcomes throughout. For the purpose of this review, impacts were defined as 'a lasting effect or influence', as defined by the action researchers involved. A number of studies reported impacts such as continuation of newly established initiatives, adoption of projects into educational curricula and acceptance of new clinical practices.

Pivotal factors – strengths and limitations of included studies

Eight pivotal factors related to action research were identified: participation, key persons, action researcher–participant relationship, real-world focus, resources, research methods, project process and management, and knowledge.

Guidance for assessment of action research projects and proposals

These eight factors were used in combination with the definition to develop 20 questions that may be useful in the evaluation of action research protocols and project reports. These questions (and the accompanying explanatory notes) should be field-tested in order to assess their validity.

Conclusions

Action research is a complex research process that has been used in a wide variety of healthcare settings in the UK. A number of definitions of action research are currently being applied to the methodology. The definition provided here includes the major components of an action research methodology.

This definition emphasises the importance of 'involvement' in the action research process, which is consistent with the emphasis in NHS policy to increase the active participation of users of services in their care. However, few users were involved in the studies included in this review.

The review suggests that action research is being used and has the potential to play a role in achieving the goals of the NHS. Specifically, the methodology has the potential to be useful in areas such as developing innovation, improving healthcare, developing knowledge and understanding in practitioners, and involvement in users and staff.

The findings indicate that action research is suited to developing innovative practices and services over a wide range of healthcare situations. The review demonstrates how the action research process can assist in the establishment of an

environment that promotes the generation and development of creative ideas and implementation of changes in practice.

Implications for policy

- Action research should be considered as complementary to other research approaches with the NHS.
- Action research has a potential role within the NHS R&D programme.
- A mechanism for evaluation of the quality of action research is required.

Implications for practice

A movement towards the acceptance within the NHS of the value of action research could be assisted by:

- the inclusion of action researchers on appropriate R&D bodies
- the provision of appropriate information on action research to those involved in policy development and funding decisions
- the dissemination of results of action research projects
- the adjustment of funding and reporting mechanisms to allow for the action research process
- the development of collaborative educational/healthcare institution action research education programmes
- field testing of the guidance for assessing action research.

Implications for future action research

Funding of action research would be appropriate in (but not limited to) the following areas:

- innovation, for example, in the development and evaluation of new services
- improvements in healthcare, for example, monitoring the effectiveness of untested policies or interventions
- development of knowledge and understanding in practitioners and other service providers, for example, promotion of informed decision making
- involvement of users and NHS staff, for example, investigation and improvement of situations in which there is poor uptake of preventative services.

Chapter 1

The origins of action research in healthcare

The variety of definitions of action research has produced confusion in the implementation of the action research process.[1–10] In order to understand how these various definitions have arisen, the following brief review identifies writers who have influenced action research. Readers who desire a more comprehensive review of the origins of action research can refer to the work of Hart and Bond[10] or Greenwood and Levin.[11]

Influential writers

Kurt Lewin

The roots of action research lie in the first half of the twentieth century. Kurt Lewin (1890–1947), a social psychologist, is often credited with coining the term 'action research'.[11] Lewin was interested in a social science that could 'help solve social conflict'.[12] He considered that research should help to address constructively the problems of exploitation and poverty in minority groups. Adelman[12] noted that Lewin drew on theories of progressive education of the educational philosopher, John Dewey. Lewin was interested in how people could, through self-education, learn to enable themselves to improve their situation. His later work included 'social experiments' in factories aimed at increasing productivity. From this, he made a significant contribution to the concept of action research through his belief that, in order to solve practical problems, people are more likely to act upon decisions made democratically in a group than they are to act on decisions made without their involvement.[12] Lewin was also the first to promulgate the action research process as cyclical. He described several stages of action research including fact-finding, planning, action and reflection/evaluation, refining the problem. A research component may be included in any or all of these stages.

Contemporary writers on action research have been critical of the sentiments of Lewin's work. Carr and Kemmis[13] suggested that democracy and group decision making were viewed as techniques to gain the cooperation of workers rather than a fundamental principle for social action and, according to Adelman,[12] Lewin did not develop theoretical structures that would assist in the critique of oppressive power bases in poor manager–worker relationships.

Hart and Bond[10] suggested that Lewin's work was highly influential in industrial and organisational action research (see, for example, Argysis, *et al.*[14] and Whyte[8]). Typically, outside action researchers act as consultants to research (diagnose) the 'problem', work with the organisation to resolve it and then use research to evaluate any changes that have been made. The diagnostic, democratic, pragmatic and empirical nature of Lewin's work is still apparent in contemporary healthcare action research.

Jacob Moreno

Gunz and Jacob[15] argued that Lewin was not the only forefather of action research but that Jacob Moreno (1892–1974), a social philosopher who, incidentally, shared students with Lewin, also helped to promote a social science that worked with people and did not reduce research subjects into passive roles. Gunz and Jacob reported that Moreno sought to integrate theory and practice by perceiving researchers as social investigators rather than as observers. In this model, experimenters enter the field of study and participate with those being researched. This notion of bridging theory and practice through subjects acting as researchers and vice versa remains popular in action research today.

Lawrence Stenhouse and John Elliott

Educational action research, developed in the latter half of the last century, has also been influential in the development of action research in healthcare. Key proponents were Lawrence Stenhouse and John Elliott.[16] Stenhouse is acknowledged for reawakening interest in action research in the field of education through the Humanities Curriculum project in the 1970s.[12] The aim of this project was, among other things, curriculum reform.[16] It initiated interest in the 'teacher as researcher' movement. It was at this time that, with rising dissatisfaction with social science based on traditional scientific/positivist philosophy, action research began to emerge as an alternative research methodology. University-based education research was considered by

these writers to be elitist, and of little relevance to teachers. They argued that the strength of action research lay in the coupling of participatory research to action and change, thus making it relevant to the everyday problems of teachers.

John Elliott worked on the Humanities Curriculum project and went on to encourage an **individual reflective** approach to the understanding of educational practice.[17] Drawing on Aristotle, Elliott placed particular emphasis on realising teacher constructions of knowledge and values. Noffke[16] considered that action research, as promoted by Stenhouse and Elliott, is part of the professionalisation process of teachers. She also identified the fact that not all educational action research has challenged dominant conceptualisations of curricula.

Wilfred Carr, Stephen Kemmis and Robert McTaggert

In contrast, educationalists based in Australia (Stephen Kemmis and Robert McTaggert) promoted, like Lewin, a **collective** form of action research, believing that groups have greater potential for effecting change than individuals.[2] In addition, they clearly sought to work with teachers to understand and challenge repressive and oppressive educational ideologies. It is clear from reviewing reference lists that Carr and Kemmis' book, *Becoming critical: education, knowledge and action research*,[13] has been a reader for many healthcare action researchers.

Other authors

Other authors have also made important contributions to the debate. Gerald Susman and Roger Evered wrote a paper in 1978 in which action research was proposed as an alternative to positivist organisational science.[18] Richard Winter, an educationalist, promoted a reflexive action research that included theoretical perspectives of dialectics.[19,20] John Heron[9] and Peter Reason's[3] background was in psychology, and their work was influenced by phenomenology. Their interests were in communication and the resolution of conflict. They also emphasised participatory and holistic knowing, critical subjectivity and knowledge in action. Orlando Fals-Borda and Mohammad Anisur Rahman based their action research on the philosophy of José Ortega y Gasset. They recognised the need for a combination of experience and commitment from those external to the situation (the researchers) and those intimately involved (the researched) to achieve shared goals.[7] This form of research has been used extensively in developing countries in attempts to bring about social and political change in healthcare.

Interestingly, movements and pressures similar to those that occur in the promotion of educational action research exist in healthcare action research. Greenwood[1] identified the lack of relevance of academic research to practitioners and promoted action research as a means of involving practitioners in research activities that were aimed at improving practice. Hart and Bond[10] argued that a substantial proportion of healthcare action research is carried out by nurses and is symbolic of their professionalisation, that is, of their increasing confidence and autonomy. Their work, although relatively recent, has also contributed to the understanding of the debates in healthcare and social care action research. Healthcare action research, however, does have a different context to educational action research with, consequently, differing practical issues and concerns.[21] For example, in healthcare action research, the high rate of turnover of participants appears to be a feature that causes problems, whereas this is not generally the case in educational action research.

Popular misconceptions and criticisms

This brief overview of the key writings in the area of action research provides a background to the following discussion of the popular misconceptions and criticisms of action research.

In certain academic circles, action research has been criticised as being unscientific and not research. These criticisms focus on the role of the researcher, the project design and validity, the measurement of outcomes and whether action research is a research method. It has been argued that action research is anecdotal and subjective, and that it is inherently biased due to a lack of researcher independence or separation from the research process.[11] Questions raised about the objectivity claim of positivist research are sufficiently addressed elsewhere.[18,22–24] Objectivity is strongly associated with the claim of a single reality or truth put forward within a positivist paradigm. Many social scientists have argued that this claim is inappropriate and hinders the understanding of the multiple realities that exist.

Researchers following in the positivist tradition attempt to disengage themselves from their study

subjects. Action research requires the researcher and researched to be actively involved in all stages of the research process. The action researcher is therefore close to those being studied and the roles of the researcher and the researched are often blurred. However, action researchers view this intimacy as a means of promoting appropriate change and understanding of practice.

Closely related to the issues relating to objectivity is that of validity in action research. From the perspective of mainstream quantitative science, action research would appear invalid. However, it is argued that action research needs to be judged according to its own terms; that is, whether the work is participatory; whether it is aimed at change; and whether it involves movement between reflection, action and evaluation.[25] Action research features both research and practice outcomes; for example, project data and action may give rise to theoretical insights as well as healthcare practice developments. Such practice developments may, in fact, be generalisable to other settings.

The process of action research is aimed at change (e.g. community organisation, improved practice), as well as the generation of knowledge. A crucial aspect of action research is the development of motivation and ownership of feasible interventions in complex real-life situations through the involvement of all who are affected by an issue. The flexibility necessary to develop action, which is owned by all stakeholders, is seen as a strength in action research. However, the identification and clarification of issues followed by a process of implementation, adaptation and evaluation is ongoing. Thus, distinguishing between the various cycles in the process is, at times, difficult. This means that the design of the research projects is evolutionary and, in the words of Fals-Borda and Rahman:[7]

> "These socio-political tasks cannot be strictly planned, generalised or copied uncritically since they imply open social systems and conjunctural processes. There are no fixed deadlines in this work, but each project persists in time and proceeds according to its own cultural vision and political expectations until the proposed goals are reached. Or it may end forthwith through impatience and/or repression."[7]

Considering the history of action research and its complexity, it is not surprising that differing definitions exist and that confusion exists regarding its application. Even when the process is well defined, it is difficult to predict or evaluate outcomes of action research projects. Preferred outcomes are often not known at the commencement of the process, or may change as priorities of participants are identified and developed during the research process. Hence, the setting of objective outcome measurements can be problematic.

For these reasons, action research is unlike mainstream scientific research and is frequently dismissed by those from the traditional scientific community. It is not seen as valid research and is often referred to as a management tool for the introduction of change, or as an educational method for continuing professional development.

Conclusions

Action research has been used in healthcare settings in the UK and, subjectively, interest in it appears to be increasing. Numerous writers have described the theory practice gap in healthcare and the evidence-based practice movement has served to highlight the lack of implementation and impact of research in the NHS. These have focused attention on alternate methodologies such as action research. However, the scope and role of this research process in the context of health technology are not clear. The complexity of the action research process has meant that researchers, managers and funders have experienced difficulties in assessing the value and outcomes of action research protocols and project reports. The aim of this project is to explore and understand these issues, and to consider how action research might be used appropriately within the context of a rapidly changing NHS.

Chapter 2
The project

Aims

- To examine the role of action research in UK healthcare settings and to provide guidance for funding agencies, policy makers, ethics committees, users and researchers for assessing action research proposals and reports.

Objectives

The objectives of the review were as follows.

1. To provide a definition of action research (see chapter 3).
2. To identify published and unpublished action research projects conducted in healthcare settings in the UK (see chapter 4).
3. To analyse action research in the healthcare field (see chapters 5 and 6), by looking at:
   - aims of action research
   - reasons for choosing action research
   - issues addressed by action research
   - outcomes and impacts of action research
   - pivotal factors – strengths and limitations (see chapter 6).
4. To develop guidance for the development and assessment of action research proposals and reports (see chapter 7).

The relationship between the four objectives and the questions raised by the original HTA Programme brief and the activities of this study are outlined in *Table 1*.

Methods

The study consisted of three interlinked phases:

- preliminary literature review
- systematic review and direct consultative process
- data synthesis.

Preliminary literature review

Key methodological action research writings were identified. Definitions found in the texts were compared and contrasted, and a working definition of action research was developed. This definition informed and guided the systematic review and consultative process. The aim of this preliminary review was to be inclusive: to encapsulate the nature and variety of action research in healthcare and to distinguish action research from other forms of research. Those characteristics identified as being key to action research were the cyclic process (problem identification, planning, action and change, evaluation) and the research partnership (the participatory nature of action research). Other aspects, such as theory generation, the nature of the knowledge to be produced and the nature of the collaborative process, were included as components of the framework. As discussed later, the working definition was further refined in the light of the systematic review and the consultative process, and led to the achievement of objective 1.

Systematic review

There is a tendency in the area of health technology assessment to assume that systematic reviews are synonymous with systematic reviews of effectiveness. This assumption arises because such reviews have primarily been concerned with quantitative research, namely, randomised controlled trials (RCTs) that specifically address issues related to the effectiveness of a defined medical intervention.[26] These reviews draw heavily on quantitative methodology. Consequently, some research communities have questioned whether it is possible and even methodologically appropriate to undertake a systematic review of action research. However, as Popay and Williams[26] argued, there are multiple research methods which address differing types of healthcare questions. They went on to argue that, in order to provide a comprehensive understanding of the challenges facing healthcare workers and to inform policy, there is a need to develop and undertake reviews of knowledge from other research traditions.

The systematic review that informed this project was designed to meet objectives 1–4 (*Table 1*) and, as such, does not address an effectiveness question. In other words, it does not compare formally the effectiveness of action research with other methods of research and change management. It is better described as a systematic and interpretative review. The review was conducted using a systematic approach to the searching, selection of studies

TABLE 1 *Relationship between project objectives and questions raised in HTA Programme brief*

Questions in HTA Programme brief	Objective	Method
What distinguishes action research from other types of research and development?	1	Preliminary examination of the literature
What action research has taken place in the healthcare context?	2	Systematic review
What are the potential roles of action research in health technology assessment? What outcomes and impact has this action research had? What are the strengths and limitations of action research?	3	Systematic review and direct consultative process
How can one judge such research? What methodological guidance can be given for future work?	4	Review synthesis

and extraction of data, using the recommendations for conducting reviews published by the NHS Centre for Reviews and Dissemination (CRD).[27] Specifically, it included the development of a review protocol, a search strategy, *a priori* inclusion criteria and a method of data extraction. It will be seen that limited quantitative analysis of extracted data was undertaken in order to calculate frequencies. These frequencies provide general information on the number, roles, outcomes and impacts of action research studies in healthcare settings in the UK (objectives 2 and 3). Beyond that, the review deviates from those described in the NHS CRD publication. In order to organise and make sense of the data on the strengths and limitations of the studies reviewed (objective 3), the approach used was similar to that of meta-ethnography, a qualitative method of qualitative data synthesis.[28]

Data sources

The search strategy included the following.

1. Searching electronic databases (01/1975–07/1998): MEDLINE, CINAHL, EMBASE, BIDS (Social Science Citation Index, Science Citation Index), PsycInfo, ERIC, conference proceedings, Dissertation Abstracts, HMIC (Health Management Information Consortium), Aslib Index to Theses, Current Research in Britain, National Research Register, British Nursing Index, POPLINE, Institute of Education (see appendix 1).
2. Handsearching of reference lists and journals, including: *Journal of Advanced Nursing*, *Journal of Clinical Nursing* and *Educational Action Research*.
3. Searching the proceedings of two recent qualitative research conferences held in the UK.
4. Advertising the systematic review at two major research conferences and through the Royal College of Nursing (RCN).
5. Requesting information and/or action research study reports, protocols and/or criteria for judging action research proposals and reports from:
   - research & development (R&D) managers of 444 NHS trusts in the UK (appendix 2)
   - action researchers identified from conference proceedings (appendix 2)
   - approximately 200 action researchers known to the RCN, London
   - known action research reviewers in the UK.

Electronic database searching was carried out in two phases, with the most recent search being carried out in July 1998. Two reviewers agreed the search strategy. Search terms are listed in appendix 1, together with a summary of the results of the search strategy.

Limitations of the search strategy

There was a need to balance the comprehensiveness of the search against the value of identifying all available studies and the time available. The limitations of this search strategy included the following.

- Funding lists from funding bodies/researchers were not searched.
- The search of conference proceedings was limited (1992–98) and biased towards nursing conferences, with only one qualitative research conference and one mixed nursing/collaborative action research network conference included.
- The CD–ROM version of the National Research Register has only been available from November 1998. Only the prototype was searched.
- 'Action research' did not exist as a delimiter in MEDLINE or the National Research Register.

- Action research studies were referred to in journal publications but references were incomplete; hence, copies of papers could not be retrieved.
- It was not possible to target the key people at all NHS trusts who may have had knowledge of action research activities. Letters were addressed to 'The Research and Development Manager'. Thus, action research carried out in the healthcare setting, of which a trust R&D manager was unaware, may have been missed.
- Projects that were not identifiable as being action research from their titles or abstracts were likely to have been overlooked by the search strategy.

Inclusion criteria

Identified studies were selected for inclusion in the review if:

- they were undertaken within the healthcare setting (primary, secondary or tertiary) in the UK
- they were dated after 1974 (studies prior to this time were unlikely to be relevant to the current NHS)
- they involved or had the stated intention of involving a cyclic process in which problem identification, reflection, research, and action intervention and evaluation were interlinked
- they were founded on a partnership between the action researcher and participants, all of whom were involved to some degree in the research and change processes.

Study selection, retrieval and inclusion

The process of selection, retrieval and inclusion occurred in stages.

1. Two reviewers independently reviewed the abstracts of studies identified by electronic searching, in order to select studies for retrieval. Any disagreements were discussed and consensus reached.
2. All retrieved publications and papers received from researchers and NHS trusts were prescreened by one reviewer for inclusion in the review according to the predetermined inclusion criteria. A second reviewer independently assessed a random selection (114) of retrieved papers.
3. A second round of study selection occurred as studies were processed for data extraction. Some reports that had originally appeared to be action research did not, in fact, meet the inclusion criteria and were excluded following discussion between the two reviewers.

Data extraction

The development of the data extraction sheet, consisting of closed and open questions, was informed by a template designed by Meyer and Spilsbury (J Meyer and K Spilsbury, City University, St. Bartholomew's School of Nursing, London: personal communication, 2000). The form was developed, pilot-tested and amended (appendix 3). One reviewer extracted data from all included studies and three additional reviewers cross-checked a selection of studies (ten studies each). Discrepancies in interpret-ations were discussed and extracted data changed as appropriate.

Unlike RCTs and systematic reviews, there is no accepted or standard format for reporting action research.[29,30] This made data extraction a difficult and time-consuming process. Thus there was limited time available for contacting authors of included action research reports to clarify or expand specific aspects.

It is acknowledged that the reviewers' interpret-ations during data extraction may be at variance with those of the authors. This is a potential problem in all systematic reviews. It is particularly important when examining reports of action research because of the sheer volume and complexity of information in included-studies projects.

Data entry

Data extracted from closed questions were entered into the statistical software package, SPSS. Responses to open questions were registered as present or absent in SPSS and, if present, the relevant statements were extracted and entered into the qualitative software package, NUD*IST. The two datasets were crosschecked when appropriate to ensure that relevant data entries matched.

Assessment of the validity of included studies

It is accepted protocol when conducting a systematic review of effectiveness to assess the quality of the included studies. At the time of this study, the reviewers identified an 'unvalidated' tool to assess the **appropriateness** of action research.[25,31] However, it was not possible to identify a validated tool designed to assess the **quality** of studies reporting action research in healthcare. An attempt was made to systematically appraise the quality of the included studies, using a modified version of the critical appraisal of qualitative research tool being developed by Professor Jennie Popay and her colleagues at the University of Salford (personal communication, 2000). However, this tool

was neither designed nor has it been validated for use with action research, and the results of this assessment were uninterpretable – the main problem being that it did not consider all the key characteristics of action research. Hence, for the purpose of this review, no attempt has been made to report the quality of the included studies.

However, although a systematic appraisal of the quality of each included study was not carried out, each study was examined in detail in the context of the data extraction process. In this process a pre-established data extraction sheet was used that included aspects identified in the definition of action research. This enabled critical commentaries to be made about each of these aspects within the included studies, in relation to the objectives of the review.

Reference is made to the action researchers' own assessments of the success or failure of their study. It is important to note that this refers to whether the action researchers were able to meet their objectives, and is not necessarily a reflection of the quality of the action research project.

Data analysis

Closed questions

Frequencies were calculated to provide descriptive information about studies.

Open questions

Content analysis of identified statements (responses) to open questions for objectives 2 and the first two components of objective 3 resulted in emergent categories. As the data extraction proceeded, the number of emergent categories decreased and statements were allocated to existing categories. In order to ensure that categorisation was performed uniformly, data were reanalysed at intervals. The final categories were exported to SPSS to provide frequencies. These categories also provided detailed information on which to base the narrative components of this review.

A qualitative analysis was undertaken of the statements relating to open questions on the strengths and limitations of action research (the final component of objective 3.). The analysis or translation of data needed a qualitative approach, because this particular objective sought to describe and understand the issues involved.[32] For this, the method parallels that of Noblit and Hare,[28] in which six phases were identified. The first phase of the process is to identify an area of intellectual interest that is, in this case, the strengths and limitations of action research. The second is to consider what studies are relevant and of interest. It was decided to include all the studies because they provided an overview of perceived advantages and drawbacks that can be encountered in action research. The range of studies illustrates the various ways in which issues were played out and they added depth and richness. The third phase, according to Noblit and Hare,[28] is to read the reports of studies, although they acknowledged that this happens over and over again and is not a discrete phase. They suggested that texts be read for information on the topic under review. In our case, relevant information was extracted on to a computerised database. The sources of these extracts were kept, in order to refer back to the original paper if necessary. In phase four the findings from the studies are compared and contrasted. Phase five is the process of translating the information from different studies into a coherent interpretation. This has similarities to our endeavours to categorise the information. In phase six, categories are collapsed into eight pivotal factors that served to describe and explain the strengths and limitations of action research in healthcare. The researchers are in agreement with Noblit and Hare[28] that the phases overlap and may run concurrently. Thus, although the general focus remains the same throughout, the resulting interpretation and supporting information develop simultaneously.

The direct consultative process

A direct consultative process was undertaken to add quality and depth to the information provided by the systematic review. It was designed to gain information unavailable through conventional published research reports.

Focus groups were considered to be the most appropriate method of obtaining the views of action researchers, participants and users on the themes that were emerging from the systematic review. Focus groups are particularly useful for gaining people's opinions on common experiences, in this case the action research process. Group interviews may trigger debates or critical discussions of issues that may not have occurred in single face-to-face interviews.[33] Sarantakos[33] discussed how focus group interviews work, on the assumption that, in a group, people become motivated and stimulated to examine their experiences more critically. This has to be balanced against a major drawback of the method, which is its lack of ability to provide individual in-depth data. For the purposes of this review, group interviews were considered as providing an

opportunity to consult a wide range of people in the time available. General advice, such as that given in Kruger,[34] was used in the preparation of the interviews. For each focus group interview, a moderator was identified whose role was to welcome interviewees and to put them at ease. The moderator explained the purpose of the interview and how it would be conducted, and sought each participant's consent. She also ensured that the topics covered were relevant.

Sampling for the consultative process

Two focus group interviews were conducted in 1998 at an RCN/Collaborative Action Research Network (CARN) conference in Manchester. The conference was selected because it was billed as multidisciplinary and the delegate list included many healthcare action researchers. It provided an opportunity to explore the developing themes with both novice and experienced action researchers. Participants were invited to take part in the focus group interviews prior to the conference. The moderators of these two focus groups were Korrie de Koning and Heather Waterman.

Healthcare settings in which action research had been conducted were identified and selected for further focus group interviews to be carried out by Dominique Tillen. Four study centres were identified from reviewed articles and selected for in-depth investigation. Criteria for selection were determined and applied in four consecutive steps (*Table 2*).

Seven of 31 centres met the criteria. It was possible to contact a key person at six of these, and one action research study per centre was selected on the basis of relevance and the type and availability of the study's participants for interview. Two centres were unable to arrange focus group interviews. The final site selection was agreed in consultation with two of the grant-holders who were knowledgeable in the field of action research. Access was negotiated through the key person at each study centre who had invited the original study participants to take part in focus group or individual interviews and had organised the interview dates. It was stressed that, whenever possible, participants should represent the complete range of participant groups involved in the study. A drawback of pre-specifying the number of interviews to take place is that it limits the flexibility and responsiveness of the project to explore further the issues raised by participants. In our case, however, it was considered that there was no need to sample more centres because data saturation was already being achieved, that is, by the last interview no new information was being generated.

Topic guide

A framework for the consultative process was produced and incorporated in an interview schedule and topic guide (appendix 4). This framework, the questions itemised in the HTA documentation, and the results of preliminary data analysis provided the basis for the topic guide.

Analysis of data from the direct consultative process

Analysis drew on qualitative techniques described by May.[35] Interviews were transcribed by a secretary and then checked for accuracy. The framework for

TABLE 2 *Identification and selection of four study centres*

Consecutive steps/criteria for selection	Results
Step 1 Select funded or PhD action research studies in order to identify centres at which they were carried out	31 centres identified
Step 2 Select identified centres that have undertaken different action research studies in at least two different settings	7/31 centres identified
• NHS trusts/regions, hospitals, community-hospital interface, community and educational institutions	6 centres = 2 settings 1 centre = 3 settings
Step 3 Confirm that sample of centres represents most participant groups • Nurses, medical staff, managers, paramedical staff (social workers, physiotherapists, and occupational therapists), ancillary staff, service users, educators, students and voluntary workers	All participant groups represented
Step 4 Confirm that sample of centres demonstrates a range of action research studies • A range of methods, settings, sizes, change innovation and participant groups	Range of action research demonstrated was considered satisfactory

the initial analysis of the focus group and interview information was based on the issues identified in the topic guide (appendix 4). For the first two components of objective 3, qualitative data have been used both to illustrate and to add depth to the quantitative data. With regard to the final component of objective 3, the qualitative data were compared, combined with the data extracted from the reviewed studies, and contributed to the genesis and exploration of the pivotal factors.

Limitations of the direct consultative process

- The sample from which the selection was made does not include all action research centres in UK.
- Information used for making the selection may be missing and, thus, centres that would otherwise have been eligible for inclusion may have been passed over.
- The selection of interviewees by the key person at each location may have introduced selection bias in the sample.

Data synthesis

As discussed above, data from the systematic review and direct consultative process were integrated. A narrative overview for each of the objectives with the presentation of tabulated information and frequencies, if appropriate, was produced. The resulting data synthesis informed the guidance for the assessment of action research projects, presented later in chapter 7.

Validation of the project

Validation of the project's process occurred through:

- involvement of an advisory panel of researchers with experience in action research
- regular communication between co-applicants
- use of a consultative process with key action researchers to elaborate on findings of the review
- presentation of preliminary results at two research conferences.

Advisory panel

An advisory panel consisting of researchers and members of interested parties advised the project team (appendix 5). The role of the panel included providing guidance and feedback on the protocol and final report, identifying action research projects, and providing information on published and unpublished studies. However, the resultant report should be considered as a reflection of the opinions of the reviewers, and not necessarily those of the advisory panel or its individual members.

Time-frame

The project was conducted over 17 months, from February 1998 until June 1999. The definition of action research was developed in the first 2 months. Protocol development and the conducting of the systematic review extended over 12 months, from March 1998. The consultative process was carried out during the middle 6 months of the project. The preliminary results of the research were presented at two conferences in April and June of 1999, in order to obtain feedback on the conclusions reached by the reviewers.

Summary

The aims and objectives of this project were achieved through a mixed methodology that aimed to combine what might be considered 'hard' data from quantitative research with the depth and understanding of qualitative research.

In chapters 3–7, the results of the project are presented, as follows.

- Chapter 3 contains a definition of action research, and a definition and discussion of its distinguishing features (objective 1),
- An overview and summary of action research in the UK health setting is presented in chapter 4 (objective 2).
- The findings on the existing roles of action research and the outcomes and impacts of such studies follow in chapter 5 (objective 3).
- These lead on to the presentation of results on the strengths and limitations of action research, which are presented in chapter 6 in the form of eight pivotal factors identified during the review (objective 3).
- Finally, a synthesis of the key findings of the review is used to provide guidance in chapter 7; this takes the form of 20 questions that could be used to begin an assessment of action research proposals and reports (objective 4).

Chapter 3

Defining action research

A definition of action research

As previously indicated, there are a selection of descriptions and definitions of action research offered in the literature.[1–6] Holter and Schwartz-Barcott[36] pointed out that the core characteristics and differing approaches and uses of action research have not been systematically identified. As a result, an embracing definition of action research remains elusive and existing definitions tend to focus on the description of characteristics.[5]

Hart and Bond[10] presented a typology of action research that identified seven distinguishing characteristics: it has an educative base; it deals with individuals as members in groups; it is problem focused; it involves a change intervention; it aims at improvement and involvement; it involves cyclic processes; it is founded on collaboration. These characteristics were related to four action research types: experimental, organisational, professionalising, and empowering. Hart and Bond[37] also argued that the four types of action research are indicative of the evolving nature of action research. The strength of Hart and Bond's typology is that it has been developed to be "...able to retain a distinct identity (of action research) while spanning the spectrum of research approaches..." Thus, while not offering a definition of action research, the typology does make explicit the identified characteristics of action research, it attempts to clarify action research types, and avoids the problems associated with narrow definitions. An attempt was made to use these four action research types to categorise the reviewed studies but it was found that they did not accurately reflect the findings in the included studies. To be fair to Hart and Bond, they did argue that their types were ideal and not prescriptive of action research. The action research reviewed did not fall into distinct types. There are many different ways of potentially classifying action research according to, for example, level of participation, research methods, and topic. Ultimately, a multidimensional matrix would be required to explain the variations but that would become unwieldy and too complicated. Finally, a definition was considered to be most helpful.

Extensive investigation and reflection on the literature[2,4,5,9,10,36,38,39] and lengthy discussions resulted in the definition of action research used in this review.

Action research is a period of inquiry, which describes, interprets and explains social situations while executing a change intervention aimed at improvement and involvement. It is problem-focused, context-specific and future-oriented. Action research is a group activity with an explicit critical value basis and is founded on a partnership between action researchers and participants, all of whom are involved in the change process. The participatory process is educative and empowering, involving a dynamic approach in which problem identification, planning, action and evaluation are interlinked. Knowledge may be advanced through reflection and research, and qualitative and quantitative research methods may be employed to collect data. Different types of knowledge may be produced by action research, including practical and propositional. Theory may be generated and refined, and its general application explored through the cycles of the action research process.

The definition does not specify a particular philosophical perspective. This is deliberate, in order to be able to encompass the variety of approaches in healthcare action research. A general discussion follows of the distinguishing features of action research and the variations that exist within the definition. Consideration is also given to the philosophical frameworks that inform action research, and how they relate to the scope of the studies reviewed.

Distinguishing features of action research

Like Hart and Bond,[37] a number of other authors[3,5,10,13,18,36,40,41] have identified key characteristics of action research. However, when these were scrutinised by the review team, it was noted that two criteria were fundamental to action research and these have been included in the definition. These were:

- the cyclic process of action research, which involves some kind of action intervention
- the research partnership, in which the degree of involvement or participation of the researched may range from cooperation, when the research participants work with outsiders to determine priorities but responsibility remains with the outsiders to direct the process, to collective action.[42]

These two criteria are inextricably linked; it would be impossible to have one without the other. As the definition indicates, there are other important aspects to action research, some of which overlap with other types of research, management and educational practices.

The cyclic process

In theory, action research is presented as a cycle of problem identification or situation analysis (including reflection), planning, action (implementation of change and monitoring) and evaluation, which may lead to identification of new problems, planning, action and evaluation, and so on. In practice, action research may be made up of small-scale interventions, often as part of a larger project, that are reflected on, planned, implemented, reflected on and adapted, and not necessarily formally evaluated. An example of this is Lee's work in training and developing registered nurses to become clinical supervisors.[43]

The depiction of the action research process as cyclical is necessary to aid understanding but, as with all models, this is the ideal and the ideal is not always attained. The manner of reporting of action research means that at times it is difficult to discern the cycles within a given action research report. The movement between the phases is, in reality, iterative and difficult to present clearly in written reports. For example, it is necessary to have some conception of the problem and possible action in order to reflect on and research it effectively. However, the study by Burrows and Baillie[44] is an example in which they claim completion of at least two cycles to investigate and bring about changes in the education of student nurses.

The research component may be the process of change and monitoring of outcomes; for example, Huby[45] employed qualitative research methods in the development and study of health service users' experience of HIV/AIDS care in Lothian, Scotland. Alternatively, research may feature as formal projects embedded in the process: for example, a controlled trial was part of the process of change in the study by McKenna and colleagues.[46,47] Other variations were in whether the focus was on practice issues, theory generation or evaluation of changes. For example, Gibson and colleagues[48] considered the practice of oral care, whereas Waterman and colleagues[49] chose to theorise on barriers to changing nursing practice in an ophthalmic outpatient department, and Hanlon and colleagues[50] presented an evaluation of a radical reorganisation of acute medical care.

Not all projects have an intervention. For example, in a project in which action research is used to explore the acceptability and feasibility of an innovation, it might be decided that implementation is neither feasible nor acceptable. In our opinion, in the example just given, the work still constitutes action research even though the intervention is not accepted. This is because the participants will have learned something new in the process; intervention is used loosely to refer to any changes in understanding, beliefs, values and behaviour. Moreover, they will have moved through the cycle and, having evaluated the innovation, they may have found it unsatisfactory. Projects that appear to have no intention of taking any form of action do not fulfil the basic criteria of the link between action and research, and would not be considered action research according to our definition. Projects in which an attempt is made to take action but the action is thwarted for whatever reason, for instance, through lack of support as in the case of Jones,[51] would be considered to be action research because there are opportunities for evaluation of the processes that occurred. These issues are dealt with further in the discussion chapter of this report.

Action research provides a framework for the introduction and evolution of strategic action that recognises the effect of and uses local contextual factors in its advancement.[52] In professional settings, the process of action research may overcome the separation of theory and research from practice.[53] The movement between reflection, research, action and theory that may occur in each phase of action research has the potential to produce experientially and professionally relevant knowledge. Action research has a potential to provide a process in which understanding and development of practical knowledge can take place (some examples of the variations that exist are given in chapter 5). Action research can assist in putting knowledge/research into practice through reflection and the implementation of change, and can also lead to the development of innovative methods of managing the change pro-

cess (see chapter 5). Thus, it allows practitioners to exercise their responsibilities towards the development of accountable practice.[53]

Changes in practice or services contribute to and are affected by the development of clinical knowledge. These changes and developments are captured and evaluated through reflection and/or qualitative and quantitative research, thus potentially leading to concrete or substantive theories. The cycles of action research also allow participants to explore practical and theoretical understandings from a variety of perspectives, for example, in different settings or with different people, that could serve to increase the general application of the outcomes of the process. However, as will be reported later, in only a minority of action research projects included in the review was an attempt made to theorise beyond the local setting. Meyer,[54] for example, theorised to explain her experiences of developing lay participation in care. The presence or absence of generalisable theoretical abstractions may be due to the importance attached to this, compared with the importance of individual practitioner understandings. In addition, some action researchers attempted to produce findings that could be generalised statistically: for example, Clarke[55] surveyed a sample of nurses about practice development. The sample was representative of the total population of nurses in the Northern and Yorkshire Health Authority.

Research partnership

Action research, unlike traditional research, includes those who are being studied, whether they are practitioners or clients, as 'co-researchers'. Without stating the obvious, the cycles of action research described above illustrate that participation in action research is crucial to development of practical knowledge and implementation of change in practice. However, participation is often thought of as more than just a technique to encourage change; it is conceived as fundamental to an overarching aim to promote more democratic research practices and to (de)politicise research, that is, to make research inclusive of everyone, not just within the domain of an elite group of researchers.[7,9,11] Action research thus takes an egalitarian approach.

Participation in action research turns the conventional research wisdom of neutral and independent researchers on its head, for good reason. Traditional research studies, which rely on objectivity and control of variables when dealing with human beings within complex organisations, have not been able to address uncertainty, complexity, instability, uniqueness and value conflict.[1,56] In contrast, changes in direction are to be expected in action research as participants' understanding of a situation develops and differing avenues of inquiry are realised.[57] The technical/mechanistic approaches to problem-solving found in other R&D strategies tend to play down contextual factors, such as relationships, organisational structures, anxiety, and professional culture and identity. These issues are analysed and addressed by participants in action research in order to inform and to take appropriate action. The consideration of relationships and vested interests in particular practices highlights the critical attitude of some action researchers towards oppressive ideologies and systems.[2,13] Through the philosophy and process of action research, McTaggert and colleagues[58] argued that there is a recognition that the generation of knowledge, moral considerations and the drive to improve people's circumstances are inextricably interrelated. Some action researchers therefore work from a critical value basis and explore these as they move through the action research process. An example of this is a study by Bellman,[59] in which she sought to investigate and advance nursing care through reflection on a model of nursing. However, not all action researchers report a critique of their underlying beliefs and values explicitly.

Action research requires participants to reflect, research and analyse collectively their own actions, values and knowledge, with a view to researching and evaluating them. Action research, consequently, has an educative function, as those who are involved refine and develop their understanding of not only the topic under scrutiny but also of research and the management of change. Action research can also have a liberating and enabling (empowering) effect among participants because it provides them with a collective means of addressing current inadequacies or inequalities. The degree of education and empowerment appears to be related to the level of participation afforded in an action research project and the problem under study.

The degree of participation varies in practice within and between studies. In chapter 4, six modes of participation are listed: co-option, compliance, consultation, cooperation, co-learning, and collective action.[42] Accepting that at times it was difficult to tell which mode was in operation, participation appears to depend on the aim of the action research, the phase of the project, the

experience of action researchers, the philosophical approach, personal factors, and the financial and human resources available. Indeed, it is possible to have several modes of participation running simultaneously, depending on the group of participants involved. For example, in Nicoll and Butler's study,[60] teachers and students were closely involved in changes to the nursing curriculum relating to the study of biology, whereas others participated only when asked to consult on proposals. Overall, therefore, it would be unwise to suggest that there is a threshold level of participation that would guarantee success. On the other hand, since participation is key to action research, it seemed sensible to exclude projects in which participants did not appear to progress beyond compliance at any stage.

Summary

An attempt has been made to present an overview of the key features of action research and to show the variations that exist within this definition. It is argued that the variations are 'variations on a theme'. An inclusive definition such as ours runs the risk of being too broad. It could potentially allow a wide range of research, change or educational mechanisms to be classed as action research – possibly inappropriately. It is argued that this is less likely to be the case with the clearly articulated distinguishing features of action research.

Philosophical perspectives

As intimated previously, there are philosophical notions that underpin action research in healthcare. The most influential appear to be critical theory, dialectics, hermeneutics, praxis and phenomenology. These have been combined in a variety of ways, to provide philosophical frameworks for action research by key writers in the field. Those that appear to have informed healthcare action research are discussed later. For the promotion of understanding (and for the want of better terms), these have been called critical, participative and qualitative. Each framework will be discussed in turn, together with how it might influence certain practices in action research. However, the differentiation is somewhat artificial for there are probably more similarities between the different frameworks than differences. Furthermore, the work of action researchers included in the review did not draw exclusively on any one framework to understand or to justify their approach to action research. The process and outcome of action research, and the priority given to the types of knowledge generated, is dependent on the combination and emphases of the employed philosophies.

- ***Critical*** This philosophical framework of action research is informed by critical theory, particularly by the writing of Habermas.[22,61,62] This approach arose from a desire to democratise research in order to present a challenge to the institutionalisation of research, which is viewed as being exclusive and exploitative. An aim is to encourage those who are normally excluded from the process of informing it, thus making research participatory. Linked to this is the desire for social improvement. Advocates of this approach seek to criticise dominant conceptualisations of society that, in their opinion, may serve to disadvantage certain sections of society. They take the view that practice including research is socially, historically and discursively constituted. The notion of dialectics influences their stance. Thus, the necessary interdependence of subjective and objective perspectives, individual and social perspectives, and practice and theory are embraced (see Kemmis & McTaggert[63] for full explanation). Drawing on hermeneutical ideas, practice is viewed as a reflexive exercise, underpinned by meanings, values and intentions that are continually being informed and reformed by both the practitioners and the organisations in which they take place.[24] This approach enlarges on the Aristotelian notion of praxis – of acting on the conditions of one's situation in order to change them.[21] In this context, Kemmis and McTaggert[63] argued that to study practice means to change it but, also, that practice is changed in order to study it. In this approach, value is attached to both qualitative and quantitative research methods; they are seen as complementary. An eclectic stance is also taken on the development and testing of theory, insomuch as local accounts of practice and/or general theoretical abstractions and statistically generalisations may be made.

  Critics of this approach argue that it is idealistic. By this they mean that its analysis of power, with its desire to create a more just healthcare system, is naive and optimistic. Others suggest that it is a vehicle by which individuals can import 'radical' social ideas into social settings.[63]

- ***Participative*** In another philosophical approach to action research, phenomenology,

participation and ecological considerations are emphasised. Reason[3] urged action researchers to be aware of how Western thinking encourages a narrow and materialistic understanding of the world that alienates people from their own understandings and from the natural world. There is a sense of wanting to create a 'better and freer world' that 'liberates the human mind, body and spirit'.[64] Primacy is given to the search for experiential, spiritual and practical knowledge by groups of inquirers. That being said, it is pluralistic in its acceptance of other kinds of knowledge. Group and individual reflection is promoted as a means of helping practitioners to engage deeply with experience and practice.[3] Formal research methods (generally qualitative) may be incorporated and theories generated but this is not the key aim.

Criticisms of this approach centre on its introspective nature that, ironically, does little to address the alienating systems of which it is critical. Boundaries between reflection and qualitative research are often ambiguous; hence, criticisms or misunderstandings arise about whether it is research and about the rigour of the research methods.

- ***Qualitative*** In this philosophical perspective there is a critique of most organisational science that is informed by positivism. Susman and Evered[18] argued that, above all, the findings from positivist science are not helpful in solving practical problems experienced by members of organisations. Drawing on phenomenology, priority is given to the subjective meaning of the behaviour of those involved with change and research. The notion of the hermeneutical circle[24] is influential in this approach, that is, knowledge is only possible through pre-positions. In other words, without prior understanding, new knowledge is impossible to gain, and that understanding is constantly reconfigured as one moves from the particular to the general and back again, or from one person to another and back, and so on. Therefore, in this reflexive approach, it is thought necessary to understand the reasoning behind people's (including the action researchers') actions; this includes an examination of their intent, experiences, values and ethics. Through discourse and reflection with members of the organisation, it is argued that a new understanding and resolution of the problem under investigation will occur.

  Generally, this perspective emphasises involvement, qualitative research methods and the generation of local understandings and evaluations of practice that have clear benefits for those involved. The production of statistically or theoretically generalisable results is not the main focus of attention, however; it is acknowledged that what is learned from one setting might usefully inform another.[18]

  Criticisms of this approach to action research focus mainly on its failure to acknowledge the influence of organisational structures and dominant ideologies on people's understanding and abilities to change their situations. In other words, it does little to challenge managerial philosophies.

The problem of oversimplification that occurs when attempting to understand the differences between perspectives is acknowledged. As stated previously, the differences are largely on emphasis. However, the philosophical perspectives partly help to explain the variations in the application of action research. Somekh[65] proposed that the various applications arise because of the different cultures and values that people have, even within the same discipline. Somekh[65] goes on to draw attention to the fact that action research, like all research, is a product of its time and history, and that the backgrounds and experiences of action researchers will shape the type and focus of the action research process.

No attempt is made here to say which is best – it will depend on the circumstances of the individuals concerned and the aim of the action research. For example, if a research aim was to improve the care of bereaved parents through consideration of professional and lay beliefs, a participative approach might be undertaken. Alternatively, if a research aim was to make community-based healthcare services more responsive to the needs of elderly people, critical perspectives might be helpful.

Judging action research

Conceptually, it would be inappropriate to rely on standard research quality criteria to judge action research. This is because action research goes beyond the traditional boundaries of description and theory generation about the 'here and now' to consider and realise, potentially, 'what ought to be'. Any guidance on how to assess action research needs to take into account the process of action

research, its participative qualities and the management of change, and how all of these relate to reflection and research. The quality of research in action research cannot be viewed in isolation. Consideration needs to be given to the philosophical background and purpose of the project, and how the processes of change and other contextual factors influence the type and extent of the research.

In mainstream research, practice developments are secondary to the research. As Rapaport and Rapaport[66] described, there is a 'smash and grab' tendency, in which researchers gather evidence and quickly leave the research setting without having had any practical effect. This scenario is reversed in action research, in which the emphasis is on practice or behaviour, with research being a tool to bring about and support change. Thus outcomes of action research should not be judged purely by their research outcomes or theory development.

As the methodology of action research suggests, it is not possible to rely solely on quantitative methods of measurement. Instead, qualitative data from multiple perspectives in the form of reflective notes, diaries, observations, interviews and documentary evidence may be preferred. This provides an opportunity to examine a range of data that can be used to inform and evaluate action.

Summary

The key characteristics of action research have been identified and discussed, including a cyclic process of assessment, action and evaluation, as well as a research partnership that encourages participation. A definition has been presented. Variations in the practice and philosophy of action research that fall within the definition have been identified, and these will serve as a focus for further discussions and clarification of the action research process.

Chapter 4

Action research in the UK

Results of the preliminary search and systematic review

A total of 368 published studies were identified. Electronic searching identified 259 studies while handsearching identified a further 109. The search of conference proceedings identified 104 researchers who had reported using action research. Of 444 NHS trusts contacted, 104 (23%) responded to the request for information. Of these, 40 said they undertook action research while 64 had no information; that is, their records did not indicate whether or not studies were action research.

At initial assessment, 285 studies appeared to have the potential to meet the inclusion criteria. These were retrieved for further examination. Application of inclusion criteria to these studies resulted in 59 studies (72 reports) being included in the review. Data extraction tables for each study are presented in appendix 6. Included studies came from published articles (44), unpublished reports (11), theses (3) and abstracts of the research (1).

Characteristics of identified studies

Of the 59 studies, 57 (97%) were carried out after 1988; 18 (30%) had been undertaken for academic qualifications (PhD, 7; Masters, 8; diploma or undergraduate, 3).

Information regarding the duration of the study was provided in 41 studies (69%); this ranged from 1 to 48 months with a median of 12 months. Study settings were reported in 43 studies (73%), while the setting could be inferred from the remainder. A total of 32 studies (56%) took place in hospital settings, nine (15%) in educational institutions, eight (14%) in the community, five (8%) involved both hospital and community, four (7%) were in general practices, and the remaining study was carried out within a health authority.

Study participants were most likely to be nurses (41 studies, 70%). Other groups listed as participants included medical staff, educators, students, other staff and managers. The numbers of people participating in the studies were difficult to calculate; information was provided in 33 studies and ranged from 1 to 60 individuals.

An attempt was made to assess the studies to determine the mode of participation according to the six categories defined by Hart and adapted by Cornwall,[42] and listed below.

- Co-option – token representatives are chosen but have no real input or power.
- Compliance – tasks are assigned, with incentives; outsiders decide agenda and direct the process.
- Consultation – local opinions asked; outsiders analyse and decide on a course of action.
- Cooperation – local people work together with outsiders to determine priorities; responsibility remains with outsiders for directing the process.
- Co-learning – local people and outsiders share their knowledge, to create new understanding, and work together to form action plans, with outsider facilitation.
- Collective action – local people set their own agenda and mobilise to carry it out, in the absence of outside initiators and facilitators.

As previously suggested, information was not often available on which to base a sound judgement on the mode of participation. The data extraction tables (appendix 6) contain our interpretation of the style of participation during different phases and are therefore limited. It would be an oversimplification to present frequencies for each phase for what is, in effect, quite a complicated process.

The basis of decisions for membership of action research groups was also difficult to discern from the information presented. Some relevant information was provided in 37 studies (63%). However, the overlap between terms and vagueness of descriptions makes it impossible to present further meaningful information.

Most studies used more than one method of data collection. The primary methods used were interviews, questionnaires, observation and focus groups. Qualitative research methods were used in 41 studies (70%), while in nine studies (15%) a combination of quantitative and qualitative

methods was used. In only 33 studies (56%) were the methods of data analysis reported.

A total of 21 studies (36%) were reported to have received funding and in 16 (76%) of these, the source of funding was reported. Four studies (19%) received funding from more than one source. The NHS (Department of Health, regional health authorities, trusts or R&D departments) was the primary reported funding source, while in three studies educational institutions and charitable organisations were listed as other sources of funding. Three studies (14%) specified the amount of funding received; this ranged from £4000 to £46,000. None of the studies reported an economic evaluation of the action research process.

Results of the direct consultative process

Seven focus group interviews were conducted between September and November 1998 (*Table 3*). All focus group interviews were taped, transcribed and entered into NUD*IST, and categorised as appropriate. As discussed in chapter 3, relevant data from these interviews is not reported separately but has been integrated, as appropriate, into the results of the systematic review.

Summary

A total of 59 studies met the inclusion criteria. A large proportion of studies that were labelled as action research did not fit the inclusion criteria. The vast majority of studies were carried out between 1988 and 1996. Research methodologies within the action research process varied with both qualitative and quantitative methods being used, qualitative research being the most predominant. Nurses in healthcare institutions were the most active healthcare action researchers and participants. The majority of projects were conducted without the benefit of funding. The costs of carrying out action research were not explored. These findings are elaborated upon in later chapters.

TABLE 3 *Overall results of the direct consultative process*

Location	Interview type	Setting	Number of participants	Type of participants
Conference	2 focus groups	Action research conference, Manchester	6 8	Action researchers from different projects
Centre 1	1 focus group	NHS trust	12	Senior nursing staff leading nursing action groups
Centre 2	1 focus group	Hospital	4	Physiotherapist, senior nurse, hospital manager and university researcher
Centre 3	2 focus groups	Hospital–community interface	2 2	GP and project co-ordinator Project researcher and practice manager
Centre 4	1 focus group	Community	4	Community project workers

Chapter 5

Detailed results of the systematic review and the consultative process

Presentation of data in this and the following sections presented a challenge. The project gave rise to a large amount of textual information that needed to be condensed, and a number of the sections contribute to more than one of the project's objectives. Each of the following sections contains quantitative and qualitative data. The discussion of this data in relation to the role of action research in healthcare appears in chapter 8.

The data are presented under the following subheadings:

- aims of action research
- reasons for choosing action research
- issues addressed by action research
- outcomes and impacts of action research.

Aims of action research

Aims and/or objectives were provided in 52 of the 59 included studies (88%). In 16 (31%), aims and objectives were provided; 30 (58%) provided aims but did not specify objectives, and six (11%) provided objectives only. In seven (12%) neither the aims nor the objectives of the study were provided. Lack of clarity over the difference between aims and objectives meant that, for the purposes of the review, they have been analysed together. Studies also reported multiple aims and objectives. Categories of aims and objectives are provided in *Table 4*.

Improvement was the most frequently stated aim or objective and centred on clinical and technological skills, education, the service provided, perceptions and attitudes, management processes and the quality of life of patients. Improvement in service delivery within the community, primary care or hospital services was a common focus.

Community services included:

- a health promotion service to change the risk of coronary heart disease (CHD)[67]
- a community-based service to reduce the spread of HIV.[68]

TABLE 4 *Aims of action research in the included studies*

Aim	Number (%) of studies, from a total of 52, in which included
To improve the existing situation	33 (64)
To develop and implement innovation or intervention	31 (60)
To evaluate project outcomes	24 (46)
To assess the existing situation: to identify needs for developing an appropriate intervention	16 (31)
To contribute to knowledge/ develop theory	14 (27)
To develop roles	8 (15)

Primary-care services included:

- general practice services relevant to health needs of users[69]
- targeting people infected with HIV[45]
- establishment of a Children's Resource Centre for children with special needs[70]
- a liaison health service for people with learning disabilities[71]
- a nurse practitioner service for patients with dementia and their carers.[72]

Hospital-based patient services included:

- splint aftercare[73]
- mental healthcare in Accident & Emergency (A&E)[74]
- pain management[75]
- self-medication for elderly patients.[76]

The following quote from a focus group interview demonstrates how multiple aims were seen to positively influence each other:

> "We used two drivers for that. There are two things happening here that you are trying to achieve: one is delivering on the bit of research and, in tandem with that, using the work to change the culture of the place to care for a particular group of people."
>
> [Focus group 4]

The development and implementation of an intervention/innovation included considering organisational approaches, educational methods or programmes, specific tools and technological developments, clinical care standards, guidelines or protocols, and changes in clinical roles.

Innovative organisational approaches included:

- an approach to clinical leadership[77]
- primary nursing[72]
- getting research into practice (GRIP)[78]
- multi-agency procedures for referral, care management, training, audit and records[70]
- organisation and management of midwifery teams[79]
- a process evaluation model[80]
- practice care developments in healthcare organisations.[55]

Innovative educational methods or programmes were aimed at post-registration and student education in a number of studies.[44,60,81–86]

Innovative tools and technological developments included:

- audit tools[87]
- a tool for analysis of the change[88]
- a hospital computerised system[89]
- a multi-agency record system.[70]

The development and implementation of clinical care standards, guidelines, or protocols focused on patient control of clinical care.[76,90] Development of clinical roles were either specified in advance or acknowledged as emergent in two studies.[69,91] An example of the objectives of one project to develop an action plan was outlined at a focus group interview:

> "The two meaty objectives we've got are to review the work and recommendations of the care of the dying and the bereavement and loss group, and develop an action plan to address those issues across the trust."
>
> [Focus group 3]

Project evaluation concerned innovations developed during the project and pre-existing innovations in the areas of education, organisational change and clinical practice. Evaluation of a pre-existing innovation included:

- the effect of an educational process model on participants' learning outcomes[85]
- the usefulness and acceptability of portfolio learning to trainers and general practitioner (GP) registrars[81]
- interactive drama for peer health promotion in schools of nursing[82]
- GP fundholding[92]
- a model of nursing care[59]
- the impact of changes to acute medical care in a district general hospital on staff and patients[50]
- the effect on quality of the King's Fund organisational audit.[80]

Existing situations were the foci of other evaluations, including examination of the role, skills and attitudes of nursing auxiliaries,[84] the coordination of services for people affected by HIV[45] and research utilisation by nurses.[78]

Making an assessment of the situation to identify the kind of intervention required was an aim or objective in 16 studies (31%). Four studies (8%) indicated that assessment information would be used as a baseline against which to measure change.[45,69,78,80]

The aim in 14 studies (27%) was to develop knowledge. In most of these the aim was to produce knowledge at a practical level but in two the aim was to verify or collate existing knowledge. In only two studies was theory generation specified as an aim and while one specified the type of theory, the other did not and eventually failed to meet this objective.

A smaller number of studies were concerned with nurses' understanding of their own roles, the roles of colleagues and the relation of their roles to the provision of healthcare and education. Role adaptations included adapting nursing roles concurrent to the development of a user-led service[69] and to the specific needs of patients with dementia and their carers,[72] and extending the role of experienced registered sick children's nurses (RSCNs) to a specialist service in a paediatric casualty department.[51]

The example offered below from one focus group interview illustrates how action research was used to review, identify and develop community nursing roles:

> "...we're looking to put a study together that would ultimately have two ends. One is to integrate the nurse team and the other is to identify what roles were required and by whom they should be performed. There are two parts, one to build the team and the other to look at what the future nursing need is..."
>
> [Focus group 5]

As might be expected, the specific aims of action research were closely tied to the reasons stated for choosing action research.

Reasons for choosing action research

In 48 studies (81%), the reason(s) for choosing an action research approach was specified. These are listed in *Table 5*.

TABLE 5 *Reasons given in included studies for choosing an action research approach*

Action research was chosen because it:	Number (%) of studies, from a total of 48, in which included
Encourages participation	36 (75)
Results in change (of some sort)	33 (69)
Has a cyclic process, involving feedback	30 (63)
Contributes to understanding, knowledge and theory	28 (58)
Solves practical/concrete/ material problems	21 (44)
Educates	14 (29)
Acknowledges complex contexts	12 (25)
Embraces a variety of research methods	11 (23)
Evaluates change	8 (17)
Empowers and supports participants	7 (15)

Participation was the most frequently listed reason. Participation was described as 'collaborative'. However, as previously discussed, definitions varied and study reports frequently failed to clearly describe participant activities. The quote below illustrates how a previous, more traditional form of research failed to get cooperation from people and, consequently, had little effect on the identified community problem. The action researcher concerned argued that there was a need to use an approach that emphasised the participation of a range of people and organisations:

> "...there had been quite a bit of research that had no outcome and cost a lot of money, so a lot of people were feeling frustrated. Certainly, as we were speaking to different groups, there were a lot of issues. People do not get together in a town like this... We had to get communities involved to address myths, to get people together..."
>
> [Focus group 7]

The strengths and limitations of participation are discussed in more detail in chapter 6.

Action research was perceived as a way of effecting change in 33 studies (69%) – as stated by a member of one of the focus groups:

> "I think, from my point of view, the reason why I like action research is its immediacy of effect."
>
> [Focus group 1]

Another member of the same focus group stated:

> "...I very much see the world of action research as being something that can take practice forward in a systematic way, while acknowledging the chaos that can be inherent in action research. However, that you are actually impacting on practice ... It involves people and you can actually make a difference and I think that appeals to me as an individual. I think if I am going to work with practitioners and patients, I want to make a difference..."
>
> [Focus group 1]

Action research was viewed as being flexible and responsive, and therefore suited dynamic, developmental and sensitive situations, particularly when more rapid responses or changes were required. Action research was seen as providing opportunities to overcome barriers to change by developing an understanding of constraints. Sustainability of change was attributed to the action research cycle, enabling benefits and internalisation of skills and knowledge. A variety of projects indicated that the change did not end with the end of the project but that participants were going to take forward the work begun during the project.

Action research was selected in 30 studies (63%) because of its process. Feedback and continuity were the features of the process that were considered important, although studies did not always specify the ultimate recipient(s) of the feedback. The importance centred on increasing participation, the speed of implementation of findings, enabling concurrent evaluation and modification and increasing sustainability of any occurring change. Discussion and feedback in groups was identified as important at one focus group interview because it helped people to resolve problems:

> "Yes, because the solution becomes clearer and the discussion pulls it on. If you just put it [the project] on a piece of paper and send it back, you just leave it and expect it to happen. If you are in a group and discuss it, you get motivated and enthusiastic, and you may want to see it through."
>
> [Focus group 7]

Another frequently quoted reason for choosing action research was its contribution to understanding, knowledge and theory (28 studies, 58%). Knowledge generated by action research was reported as occurring during the action research process and at the endpoint of the research. The types of knowledge provided by action research were usually generated through qualitative research, and include: 'useful' knowledge, descriptive knowledge, models, evidence and theory. Thus, the knowledge gained ranged from personal knowledge (attitudes, assumptions, experience and perceived needs) to scientific knowledge and theory. It also included information about an existing situation and structural and cultural constraints contributing to the issues to be addressed. However, most frequently, experiential knowledge was being sought. The following statement was made at a focus group interview and highlights the importance of gathering different viewpoints on a problem:

> "Insights from different perspectives for me – having evidence from different perspectives that's generated through systematic collection of data whether it's quantitative or qualitative. Whereas change management could be changes happening but not necessarily informed by data. In this project, we were really trying to find out what the patients thought of the services."
>
> [Focus group 6]

Action research was chosen in 21 studies (44%) because of its focus on problem solving. The majority of studies described the 'problem' as a practical one and these studies focused on clinical practice or practitioners. Action research was therefore perceived as a way of promoting improvement and was seen to have a role in addressing problems in a specific setting that had either local or national relevance. Improvements were anticipated in clinical practice, education and services.

One of the reasons for action research being selected was to address the challenge of bridging the research and practice gap. Action and research were perceived as occurring concurrently or being integrated. In one study, it was assumed that both the action researcher and practitioner could contribute equally to closure of the gap and, in two studies, the dominance of research was indicated by the statement that research would inform or be integrated into practice.

Reflection was the main educational tool of action research influencing both process and outcomes. It was employed in 14 studies (29%) and variously interpreted and applied. It was considered to be particularly suited to complex dynamic situations, reducing the theory–practice gap and, as a tool itself, could have a sustainable educational effect on users. The fact that action research acknowledges the complexity of healthcare practice and change was identified in 12 studies (25%).

Action research was also chosen because of the perceived flexibility it offered in relation to the research methods that could be used. Few studies explicitly linked the use of quantitative methods with action research.

In eight studies (17%) action research was favoured because it evaluated and/or monitored change. Only in one study was the nature of evaluation specified, that is, as formative, and in three the way in which evaluation would take place was specified, that is, systematically, involving monitoring.

Other reasons for the selection of action research included its use of support and empowerment. Support and empowerment as outcomes of action research were seen as being enabled by its participative and educational characteristics, and influenced by participants and their relationships with the structures and within the organisation or institution. The reasons for choosing action research were directly linked to the problem/issues to be addressed.

Issues addressed by action research

The issues addressed were reported in 47 studies (80%) and are summarised in *Table 6*. In a further

TABLE 6 *Issues addressed by action research in the included studies*

Issue chosen because it:	Number (%) of studies, from a total of 47, in which included
Professional education, skills training	14 (30)
Inappropriate or conflicting practices	13 (27)
Lack of evidence	12 (26)
Professional roles	10 (21)
Health service provision	8 (17)
Communication and/or involvement	7 (15)
Targets, standards, guidelines	6 (13)
Implementation of research in practice	3 (6)
Power	1 (2)

twelve (20%) studies, the issues addressed were not clearly outlined.

Professional education, inappropriate or conflicting practices and lack of evidence were the most common issues addressed. Issues related to deficits in, and potential for, professional development and, more specifically, the usefulness of educational strategies and their delivery. For example, issues relating to appropriate educational approaches were of concern in four studies; these included professional profiles,[81,93] clinical supervision[43] and core nursing skills training for student midwives.[94]

Inappropriate or conflicting interventions included clinical care, policy and educational interventions. Inappropriate interventions, for example, included the use of seclusion for the forensic psychiatric patient[95] and processes designed to protect sexually abused children.[96]

In studies in which a lack of evidence to support existing approaches and innovations was examined, the issues to be addressed arose in the areas of organisational change, education, clinical practice and the development of roles and models of care. A lack of evidence associated with organisational change and development was addressed, for example, by four studies. These were the commissioning of district general hospitals,[97] the creation of GP fundholding practices,[92] a policy to reduce hospital admissions[50] and the provision of professional education in healthcare organisations.[55]

Studies looking at the roles of healthcare providers, particularly nurses, concerned the clarification, identification and development of new and existing roles, as well as overcoming barriers to their uptake. The issue addressed in the following quotation from a focus group interview illustrates the desire to introduce a different way of organising community nursing services:

> "The [GP] practice put forward a module of primary nursing care teams, as opposed to practice nursing and community nurses who had gone in the business band back in 1992. I think that matched quite closely, by chance, the model which ... Health Authority had been pushing round its various departments, so we had a view of where we wanted to go..."
>
> [Focus group 5]

Eight studies (17%) dealt with complex and sensitive issues, including a lack of service provision between institutions and to particular patient groups and the underperformance of managers and clinical care practitioners, as well as organisational processes. The use of action research allowed members of the healthcare teams to examine and address these issues through an organised process. A lack of communication and involvement among practitioners or between practitioner and service users or managers was addressed in seven studies (15%). Two of these involved practitioners and service users, for example, GPs and practice nurses, and patients with diabetes.

Clarification of targets or standards not met was a focus for six studies (13%). These included situations in which managers were unable to implement changes necessary to meet targets,[98] care planning and delivery outcomes,[75,99,100] and clinician teams or educators who had not fulfilled their expected potential.[79,101]

The wide range of issues addressed by action research also led to a large variety of outcomes and impacts from projects.

Outcomes and impacts of action research

An examination of the reported outcomes and impacts of the included studies provides another perspective on the existing roles of action research. For the purpose of this report, 'outcomes' were defined as either research outcomes or immediate results of events; they included personal, professional and educational outcomes. These are viewed as being equally important as 'impacts', which were defined as 'lasting effects'.

Categorised outcomes and impacts are presented in *Table 7*. It is important to note that process outcomes are presented from three of the phases of the action research studies. There were no outcomes reported in the action phase of the included studies. For the purposes of simplifying the many data, only the two most frequently reported outcome categories from each section are presented in the text (identified as C1–C8). Readers wanting more detail are directed to appendix 6, in which outcomes and impacts of each included study are included in the data extraction tables.

Outcomes

Problem identification phase

Outcomes from the problem identification phase that related to clarification of issues (C1) to be

TABLE 7 *Categories of outcomes and impacts in included action research studies*

Phase of action research		Number (%) of studies, from a total of 59, in which included	Categories	Number (%) of studies in which included
Outcomes	Problem identification	47 (80)	Clarify issues to be addressed (C1)*	27 (57)
			Identify need (C2)*	25 (53)
			Baseline information	17 (36)
			Motivate action	11 (32)
	Planning	38 (64)	Develop innovation (C3)*	31 (82)
			Preparation for change (C4)*	18 (47)
			Identify existing innovation	8 (21)
			Action plans	5 (13)
			Emerging information	5 (13)
	Evaluation	52 (88)	Education (C5)*	35 (67)
			Change (C6)*	31 (60)
			Participation	23 (44)
			Educational approaches	15 (29)
			Service provision	14 (27)
			Role	12 (23)
			Contribution to theory	6 (12)
Impacts		32 (54)	***Same location***	
			Educational approaches (C7)*	9 (28)
			Clinical care (C8)*	7 (22)
			Management	4 (13)
			Service provision	4 (13)
			Role	2 (6)
			Users	2 (3)
			Other location	
			Education	1 (3)
			Clinical care	1 (3)
			Organisational approaches	1 (3)
			Research	1 (3)

* *C1–C8, categories addressed in the text*

addressed included: service provision and clinical practice; education; role and participation; information technology and management issues; alternative perceptions to problems; and barriers to change. For example, an early audit of nursing care plans revealed how a new hospital's computerised system was inflexible and too time-consuming, thus allowing for revisions to be made before its full implementation.[89] Another study revealed how middle managers had become so overburdened that audit was viewed as another "paper-based project", with the result that there was a limited effort to make organisational changes designed to promote quality.[80] One study highlighted the management concerns of health visitors – no standardised form of record-keeping and no tools available for caseload profiling and analysis.[88]

Through the problem identification phase, conflicting or alternative perspectives on the issue under investigation were identified by the studies. In one, managers wanted to ease the transition of senior nurses from the traditional senior nursing role to a new role that included standard setting and budget management.[100] Managers perceived senior nurses as blocking change by a simple unwillingness to change. However, interviews and workshops revealed that senior nursing staff were willing to change, and that the root cause of the problem was a lack of ownership and understanding of the management-proposed changes, structural constraints and differing agendas for change. Another study revealed that a lack of integration of welfare rights into the services for HIV-infected individuals was of far greater concern to service users than the service providers had previously assumed.[45]

The most frequently identified needs (C2) were related to education. They included staff education[49,72,78,98,102] and the educational needs of students.[44,94] Using focus groups, one study highlighted students' needs to practise skills away from the clinical setting.[44] It also highlighted the negative attitudes held by lecturers on changes to teaching practice.

Comments from a focus group interview highlighted how an action research project led to consultation with people in a community to identify community needs:

> "I did some street work with X on the project and initially it was difficult to get people to talk to us and get them to open up; I guess the subject of drugs makes people cautious. Using the PRA [participatory rural appraisal] exercises helped to widen it, so [by] asking direct questions about drugs or what they see as the problem or whatever, we were opening it up and then focusing it back down again, and were able to use it with [our] methods ... I don't think you would be able to do that with a questionnaire."
>
> [Focus group 7]

Planning phase

Outcomes of the planning phase of studies included development of an innovation and preparation for change. The most frequent innovations (C3) developed during the planning phase were educational. These were primarily aimed at participating staff to facilitate change or initiate development of an educational programme. In a number of studies, pilot educational programmes were developed as the main aim, with the expectation of further refinement during the course of the studies.[44,74,78,81,103] Few educational innovations were developed for or by service users. In one of the few studies that involved student nurses, a health education/promotion programme for 14–18 year-olds was developed.[82]

Tools and strategies were also developed during the planning phase. These included: clinical care tools, audit tools, standards of care, written and computerised documentation, educational tools and research tools for use in the study. For example, an integrated care pathway assessment tool for coronary events[69] and a tool for patient self-medication[76] were devised in two studies. This quotation from a focus group interview provides an example of a strategy developed for career progression for nurses in an NHS trust:

> "I'm on the clinical leadership focus group and as part of that we looked at career development, and we have developed a career program by action learning ... As a result, one of the people on the steering committee then went on to do some research and produced a document on it and how effective it was."
>
> [Focus group 3]

Preparations for change activities (C4) included seeking permission to undertake or complete the project, selecting the sample for research, project management (gaining premises, establishing steering groups, terms of reference, contracts, personnel and roles), gaining or providing funding, educational preparation of participants, overcoming barriers and creating a willingness to change.

Evaluation phase

Outcomes were identified from the evaluation phase in 52 studies (88%). Seven did not perform an evaluation of the change. Three of these studies were still in progress when data were collected for this report,[91,100,104] two stopped prior to implementation because of a lack of funding or resources,[51,88] in another too much resistance to change was encountered[105] and, in another, agreed changes were not implemented.[106]

Positive educational outcomes (C5) for individuals were classified as personal and professional development. Personal development was reported in 15 studies (29%) and, while one study report stated only that personal development had taken place, others provided more details. Personal development mainly included:

- an increase in confidence;[43,44,51,59,77,78,82,84,86,90,94,96,98] for example, Burrows' project[44,90] led to improved confidence in staff in the management of acute pain
- an increase in awareness;[59,80,96,107] for example, Marrow[107] reported that clinical supervision had led to increased self-awareness in the nurses concerned
- the ability to recognise one's own strengths, weaknesses and limitations[86,94,98]
- increased maturity.[94]

The following quotation from one of the focus group interviews sums up these points well:

> "I think the exciting thing about this whole business of research is that it stimulates people to be self-critical, to ask questions, to analyse what they are doing, to check out better ways of doing things. It just stimulates this whole process of enquiry – asking questions, helping people – so they themselves take things forward. I think this is a healthy productive way to operate..."
>
> [Focus group 4]

Personal development was mainly reported among students and staff but also included managers and service users.

Professional development was reported in 20 studies (38%), which included increases in knowledge and skills. An increase in knowledge was reported among practitioners in the areas of:

- clinical practice[73,74,90]
- management[92,98]
- education provision.[82,103]

Skills development was reported in:

- research; for example, research skills of practitioners, or students and action researcher were reported to have improved through their participation in the project[78,90,96]
- teaching; for example, self-education through reflection,[107] patient education[59] and student education[82,101,108]
- clinical practice; for example, of student nurses or midwives[44,94] and qualified nurses[51,99]
- communication; for example, in health education,[82] counselling[103] and written and verbal communication skills[59]
- management; for example, through making a case for resources, decision making, problem solving, prioritising[98] and auditing[87]
- non-specific professional development was reported in two studies.[48,109]

Empowerment occurred through personal development.[43,59,82,86,96,98,109] However, it also came about through gaining the support of management[73] and reversal within the action researcher–participant relationship, as demonstrated in the study by Bond and Walton:[96]

> "...it was a very strange thing for us [mothers] to be teaching them [social workers]. That, actually, was what it was in the end."[96]

Educational input was also reported as having an effect on structure and processes including:

- increased participation – two studies attributed the educational input directly to increased participation of study participants;[73,98] this also included such things as networking, working together and sharing ideas;[82,96] it was identified that, at times, this could result in conflict, as in "increased financial awareness may lead to conflict within individual doctor–patient relationships"[92]
- roles – the clarification of roles,[109] uptake of roles[77] and development of new roles[72,73]
- developing innovations – in documentation on care,[99] nurse education[83] and primary healthcare delivery[69]
- providing services – for example, a leg ulcer clinic[69] and consulting services for patients[103]
- saving time – through the sharing of ideas[98] and the rapid uptake of new ideas.[44]

That some change occurred (C6) could be inferred from most studies but 'change' was listed specifically in only 31 studies (60%). This quotation from a focus group interview describes one innovative outcome that provided a structure for nursing research in an NHS trust:

> "What's impressed me so far is the fact that there's a structure in place for anybody within the trust who's looking to start their own research project, which in itself can be quite a daunting prospect. There are people there with whom they can link up who can put them in touch with [other] people who've done similar research ... There are courses on research awareness and research skills, advice from people an how to approach research ethics committees, and all the kinds of things [that] you tackle when you embark on a research project – which has been quite useful."
>
> [Focus group 3]

The occurrence of a 'change' was not dependent on the successful implementation of an innovation. There are cases when an innovation had been implemented and no change was reported in some aspects of the project.[47,110] Alternatively, when an innovation was not implemented or adopted, minimal changes were reported.[80,101] For some studies, it was reported that no change had occurred.[51,105,111] This may indicate a need to consider more carefully how to define and assess change.

Positive 'change' was reported in a number of areas:

- clinical practice[44,48,73,90,103]
- provision of services[50,80,91,92,110]
- provision of education[60,101]
- attitudes and perceptions of staff.[44,45,82,108,112]

In addition to providing outcomes about change, studies offered insights into the changes that occurred. Rapid change occurred in two studies.[89,98] However, not all changes were sustainable.[92] Some changes were reported as occurring within the time-frame of a project and some after its cessation. Conversely, in one study, changes occurring after the official completion of the project were not clearly attributable to the action research.[74]

While events and outcomes of change were often described and sometimes interpreted, they were less often explained. Interestingly, studies in which fewer changes were reported provided more detailed explanations of how and why change did or did not occur.[49,111,112]

Impacts

For the purpose of this review, 'impact' has been defined as 'a lasting effect or influence'. Thus studies in which a continued effect was reported were categorised as having an impact. This approach is supported by Jackson and Rolfe,[91] who argued that:

> "The real evaluation of the success of this project is the fact that, at the end of the funded period, funding was taken up jointly by the University of Portsmouth and the Portsmouth Healthcare Trust, despite severe restrictions within both organisations."[91]

Initiatives that persisted at the same location were found in 32 studies (54%) and, in a small number (four studies, 13%), an effect beyond their location was claimed.

Educational impacts (C7) at the same location were reported in nine studies (28%). However, a number of educational initiatives were reported as continuing through having achieved additional funding, university validation, support through existing systems or incorporation into the undergraduate curriculum, or uptake by practitioners. These initiatives included:

- the value of **action learning sets** to support midwifery managers being recognised and the project receiving additional DoH funding for 1 year[98]
- **clinical practice development accreditation** (CPDA) being validated at a university for 5 years with one successful CPDA event being accomplished and plans being drawn up to operate internationally[55]
- **research education** (GRIP) of nurses being continued through open learning supported by education staff employed by an NHS trust[78]
- a **clinical supervision** culture being promoted in a unit, with participants experimenting with peer group supervision[77]
- the value of **medical/surgical/mental health placements** for student midwives being established[94]
- **formal, taught clinical-skills sessions** being incorporated into the nursing curriculum[44]
- **interactive drama for health education** becoming recognised as part of the students' curricular activities (2 years later)[82]
- alterations to the **teaching of biology** being made in a nursing school.[60]

Following one study, participants organised the first national conference on mental health issues and emergency nursing.[74]

Clinical care initiatives (C8) included activities such as the identification and use of a system of annual audit to monitor the implementation of patient-controlled analgesia[90] and mouth care.[48] New approaches to nursing care were taken up in research wards[47,109] and, in another study, despite initial failure to implement *Lay participation in care: a challenge for multidisciplinary teamwork*,[112] additional funding to continue the initiative was reported. The continued use of patient-centred consulting, developed through action research, was reported and an associated teaching programme was planned to proceed to an RCT.[103] It was reported at a focus group interview that the project had had an impact on the perception of nursing at trust level:

> "It's also put nursing on the agenda of the board. The strategy is well recognised by most board members and got their full support. That's quite an achievement, for nursing to be recognised corporately. It's not the same elsewhere."
>
> [Focus group 3]

The quotation below from another focus group interview illustrates the continuing impact of action research on staff approaches to issues and how they work together:

> "We have changed the way we manage three services, and [have] looked at a couple of other services since the end of the project. There is more of a feeling that it's team nursing. We bring special skills to that team. There is an approach that is consistent, hopefully. We certainly talk more and we certainly have more regular meetings in the nursing team. Those are quite constructive – at the moment we're looking at the 'flu campaign. We're looking at that more as a team approach than we did in the past."
>
> [Focus group 6]

The reported impacts of action research demonstrate its potential for continuing effects on staff and users and on services. Continuing changes were reported in educational approaches, service provision, establishment of roles, management and user-led initiatives. Viewing these changes through a positivist perspective limits our ability to attribute these outcomes and impacts to the action research process. However, there is no question that changes occurred in these environs and, given the

complex and dynamic nature of the action research process, it is likely that it contributed to them.

Summary

Healthcare action research projects aimed to improve existing situations and develop and implement innovations or interventions. The main reasons for selecting action research were its participatory nature, facilitation of change and cyclical process. Action research reports addressed issues such as: professional education, inappropriate or conflicting practice, areas of practice where there was no evidence, and professional roles. The outcomes of action research were dependent upon the stage of the project and the issue to be addressed. The findings of the review highlight the difficulties of attributing outcomes and impacts to the action research process. Typical outcomes include: clarification of issues and identification of problem to be addressed, development of innovations and preparation for change, and personal and professional development. Impacts over and beyond the stipulated period of enquiry included the dissemination of findings into education curricula and funding to support clinical innovations. The strengths and limitations of action research identified from the included studies are discussed further in the next chapter.

Chapter 6

Pivotal factors: the strengths and limitations of action research

The systematic review and consultative process identified the aims, use and outcomes of action research. In this chapter data from a variety of perspectives are examined in an attempt to identify the strengths and limitations of action research. This was accomplished through the analysis of data from the included action research reports and the consultative process. Data were compared and contrasted, and organised into categories from which themes emerges. These have been grouped into eight categories that are called here pivotal factors. In the following analysis the perceived positive and negative aspects of these factors are summarised. It could be argued that the presentation of what appear to be opposing aspects of the same pivotal factor helps to provide possible avenues for reconceptualising understanding of the process of action research in healthcare and offers ideas for its further development. This is discussed in the light of contemporary thinking on action research. The pivotal factors identified from the action research process are:

- participation
- key persons
- action researcher–participant relationship
- real-world focus
- resources
- research methods
- project process and management
- knowledge.

Even though there appeared at times to be an overlap between factors, it was considered that there were enough differences to warrant their separation. The combined reporting of findings and discussion used in this section of the report is common in qualitative research and, given the nature of the analysis, was considered appropriate. These pivotal factors are used later in the identification of factors that may be considered in assessing action research protocols and project reports.

Participation

Participation was identified as a key component of 41 studies (70%). The positive and negative aspects of participation, as a component of the action research process, are summarised in *Table 8*.

TABLE 8 *Pivotal factor: participation*

Perceived positive aspects	Perceived negative aspects
• Promotes understanding of the context of study • Allows for problem identification by participants • Develops appropriate, relevant and feasible innovations and strategies for change, leading to sustainable change • Makes use of available resources of knowledge and experience • Provides educational opportunities through sharing of experience, knowledge and ideas • Generates interest in the project • Increases or develops willingness to participate and to change • Overcomes barriers to change • Promotes ownership of change • Allows for rapid uptake of change • Establishes rapport • Provides support • Saves time	• Disrupts existing boundaries of decision making and strategic planning • Initiates shifts in existing relationships • Requires energy to maintain • Provides opportunity for domination of projects by more powerful participants • Encourages feedback on performance of participants which may be viewed as a threat • Takes time • Creates resistance to change • Creates negative feelings if changes are not implemented

Participation was reported as being important in every phase of the action research process. Discussion on participation included who participated in a project, their level of participation and the varied activities of the participants.

Participation of staff and, in a few instances, users was reported as having benefits at all stages of the action research process. Participation, it was claimed, generated interest in the project and the establishment of rapport between action researchers and participants, which led to motivation and willingness to change. Ownership of change was seen as an important outcome of participation. Participation was considered to have an educational component because experience, knowledge and ideas were shared, and participants felt supported by the action research group. Participation by various people meant that groups had access to useful experiences and knowledge that were employed as resources to the project. In some instances these were resources that would not normally have been available to participants. Participation led to a more comprehensive and contextualised understanding of problems, as well as the identification of problems and the development of appropriate, relevant and feasible innovations and strategies. Participation was viewed as helpful in overcoming barriers to change and in reducing possible negative effects of change. There are examples in which participation led to a rapid uptake of innovations, in that staff viewed the change positively. The following quotation from one of the focus group interviews illustrates this point:

> "If you are in a group and discuss it, you get motivated and enthusiastic, and you may want to take part in seeing it through. They [the group] feel part ownership in it, getting involved in it."
>
> [Focus group 7]

Participation was reported to lead to shifts in existing relationships that, at times, both action researchers and participants found difficult to manage. This was particularly true of those relationships between different professions, senior and junior staff, and practitioners and managers. Management of such changes often required diplomacy and tact. These changes frequently focused on people who did not ordinarily take part in decision-making processes.

Participation was also viewed as a negative influence on the research process. In one study, it was regarded as time-consuming to secure participation as well as access before the study had formally started. Conflict among participants was reported in several studies. Conflict was seen by some as originating in different perspectives of a problem, which arose from different professional and philosophical backgrounds and dominance by more powerful staff. Participation or lack of it, through the imposition of projects on unwilling participants, also led to resistance to proposed change. In these cases, change was not implemented or the rate of change was so slow that it was unsustainable, as the next quotation from a focus group interview demonstrates:

> "We have had such a lot of difficulty from some areas and a lot of resistance, mostly from the therapies, presumably because they feel threatened. I felt, because it was trust-driven, there could have been more pressure from a higher level, executive level maybe, to get the cooperation that we needed, whereas that has been another factor that has slowed things down with the project."
>
> [Focus group 4]

There were examples in which participants found it difficult to cope with a heightened awareness of problems and this led to conflict in existing relationships. Feedback of research to participants was also difficult for some. Conflict arose in one study when feedback on participant performance was provided by action researchers and was viewed as incorrect by the participants.[105] This is not a problem with action research *per se*, as such problems occur in other forms of research.

It is noteworthy that some participants brought attention to their difficulty in accepting greater responsibility for the research process. It is unclear whether anxieties from lack of preparation or from other sources led to this problem. As indicated in chapter 3, action researchers aim to be non-elitist and democratic but, in practice, this is not always easy to achieve.

Although some innovations may be 'owned' by participants in the action research group, this does not guarantee ownership by all those who may be affected by the change. As indicated previously, it is impossible in some circumstances to include all those who will be affected. Participation in action research groups means that usual channels of communication and decision-making may be bypassed and, as a result, may cause disruptions to normal patterns of working.

Practicalities of participation also meant that instances occurred in which people were unavailable.

This, in turn, could reduce effectiveness or delay projects. Practical reasons for non-participation included lack of time or payment. Movement of staff due to pre-set rostering arrangements also meant it was difficult to maintain participation, and continuation of work could be affected. In some studies, key people were overlooked as participants and this served to slow or prevent the process of change, while in others it took energy to maintain interest in participation among all those concerned.

Participation was evaluated qualitatively through interviews, diaries and field notes in all but one study; the authors of this report attempted to quantify changes in participation and reported difficulties in demonstrating such a change.[70] This lack of reported measurement of participation might simply mean that action researchers did not identify a need to quantify participation in their project, that such a quantification would not add value to the outcomes or that it was too difficult a concept to measure.

Participation comes across as being organic,[113] in that it takes time to nurture and flourish, and the course of participation is not smooth. Opposing viewpoints on the value of participation do not serve to denigrate it but help us to question it critically so that the process may be improved on constructively. Participants continually have to balance private and personal needs with professional desires to participate in action research.

The consistency of issues across studies indicates that management of group and individual participation is an important factor in any action research project. It indicates that monitoring as well as sensitive and appropriate management of personal and professional relationships is required. An understanding of the context in which research is being undertaken is crucial to the success of action research. These activities require both time and skill.

There appears to be a tension in reported advantages, in that participation tends to be set in the context of facilitating appropriate change rather than as an important principle in democratising research.[13,114] Heron[9] argued that action research had an important role to play in empowering participants through its participatory approach. Empowerment seems incidental in relation to facilitation of change in some of the studies included in this review. Most studies took place in a nursing setting with a tradition of strong hierarchical structures. In such an environment the potentially empowering aspects of action research are often more difficult to achieve. This is illustrated by examples in which there are changes in boundaries of decision making and strategic planning, and in which these changes might be viewed as negative.

There were indications that, although participation was accepted as important, sufficient consideration was not given to the potential problems that might arise in relation to the active participation of diverse groups of individuals with, at times, conflicting goals and objectives. This, in our view, is not a limitation of action research. It does, however, indicate that managing participation within an action research project is both important and complex. It requires an understanding of how people and organisations interact, as well as the skills to use these interactions to meet the goals of the project. Participation is discussed further in chapters 8 and 9.

Key persons

Key persons included those traditionally regarded as having formal positions of influence within organisations, for example, managers, medical staff and senior nursing staff. In addition, there are those seen as having less formal positions in the clinical setting (for example, junior nursing and medical staff, and students). Only two studies reported service users as key persons.[45,96]

Managers, senior nurses, and the action researcher (particularly if an insider) were reported most frequently as key people who positively influenced projects. Such people were important in sanctioning the project, providing support, establishing networks and providing resources to implement and sustain change (see *Table 9*), as the following quotation from a focus group interview shows:

> "It's good to have [X] and I more on a ground level doing the basic teaching which goes along with the research. But we couldn't get anywhere if we didn't have the back-up from higher up the organisation, and that to me is one of the most important things."
>
> [Focus group 4]

There was recognition that there were staff with knowledge and skills relevant to the project, who could initiate or undertake change in practice. Such staff were instrumental in overturning the

TABLE 9 *Pivotal factor: key persons*

Perceived positive aspects	Perceived negative aspects
• Request study • Obtain permission to conduct study • Authorise access to staff • Link different agendas e.g. managerial and professional agendas or viewpoints • Initiate or undertake the practice that is the focus of change • Provide skills relevant to the proposed change • Provide resources: funding, materials, time, staff • Sustain change: alteration of organisation structure and policy to accommodate innovations, provision of resources, funding, personnel	• Impose the project • Oppose the project • Do not participate, e.g. do not impart information, do not complete diaries • Do not participate, resulting in changes with low significance • Dominate project • Refuse to allow shifts in power

traditional view of the action researcher as 'expert'.[74,95] This is also related to the next pivotal factor (the relationship between researcher and researched). A quotation from a focus group interview supports this:

> "... [X] was that to begin with. She had influence at board level but also influence within the nursing arena. That was really important to focus our energies and our minds to looking at changes in nursing practice..."
>
> [Focus group 3]

Key people who did not respond or support the projects in this review included medical or nursing staff in positions of authority. Their influence was regarded as having limited or blocked the implementation of innovations, or limited the ability of participants to collect data. The underlying reason often listed for these negative effects was either lack of inclusion of key people at the outset of the project or their inability to participate due to other commitments. With reference to the non-implementation of patient-controlled analgesia, it was reported in one study:

> "I had assumed that anaesthetists had collaborated."[90]

In another study it was suggested that the lack of involvement of medical staff resulted in changes of low significance:

> "...without medical staff involvement, the quality group tend to work on the areas marginal to the central problems facing the healthcare organisation ... We now recommend that medical staff are involved at the outset of such projects."[80]

On the other hand, over-involvement could lead to domination of the project direction, drowning out the views of other participants.[69,104,112]

Key persons who held influential positions were able to support a study; however, hesitancy or an inability to delegate responsibilities to participants could negatively affect the progress of a project. From another perspective, some participants became too dependent on key persons, making it difficult to sustain change once the key persons withdrew.

The findings indicate that, in order for action research to proceed, it requires key people who, indicated by their name, are in a position to sup–port or thwart a study. Key persons, as with others, cannot be presumed to approach action research without any prior agendas and to work in manner aimed at achieving a rational discourse and solution.[22] These findings highlight the importance of consultation and assessment of the key participants in an action research remit. It must, however, be pointed out that the dynamic nature of action research means that new 'key persons' may be identified as the project evolves. This draws attention to the fact that it may not be possible, during the planning phase of a given action research project, to identify all future participants. This also means that action researchers and participants must continually assess the evolution of the project aims and the possible need to add (or in some cases withdraw) participants from the project.

Identification and consultation with key people is important to the success of other types of research, as shown by research testimonials on gaining access to 'subjects'.[115–117] The results suggest, however, that because action research is intent on resolving social and practical problems, more commitment and participation is required by key persons. The political nature of action research, which arises from the inevitable challenges to the *status quo*,

means that key persons have to make investments in the project on a scale generally greater than that required for conventional research.

Elliot[118] raised an important point when he argued that organisational structures are internal and not external to human experience, as proposed by some critical theorists. Drawing on work by Giddens, Elliot also suggested that people's behaviour and beliefs are not only shaped by the institutions that they work within but that their actions and values also contribute to the form and effect of these institutions. He went on to suggest that action researchers cognisant of this will take it into consideration and develop a network of collaborators, with varying roles, within the organisations in which they are working.

The limited involvement of users as key persons in the included studies is somewhat surprising. Action research, by its nature, suggests that its application within the healthcare context would be to empower groups such as clients or patients.[9] This could support the premise that the principles or underlying philosophy of action research were either misunderstood or considered to be inappropriate in the healthcare context. It could also be interpreted to mean that empowerment within the included projects focused on the research participants who, in this case, were primarily nurses. Alternatively, lack of involvement of users might have been caused by lack of knowledge about how to facilitate users in action research or by insufficient funds to involve them properly.

The action researcher–participant relationship

Different models of the action researcher–participant relationship were represented in the included studies. One of the most distinguishing features was whether the action researcher was an 'insider' or an 'outsider'. An 'insider' is classed as a person who has a formal role in the study setting and is usually in paid employment, whereas an 'outsider' has no formal role in the setting other than as part of the action research project. The most important advantages and disadvantages of both situations, in relation to the success of a project, are presented in *Table 10*.

Difficulties arose from being so familiar with a situation, as an 'insider', that the development of a fresh perspective was difficult. At times, this meant limiting access to confidential and sensitive information. Conversely, some 'outsiders', unfamiliar with the institution or the context, found it difficult and time-consuming to become integrated. This integration included such things as the establishment of the project and the development of credibility with the staff. Of course, both situations were found to have their positive sides: the 'insider' was familiar with the situation and had an established role in the team, while the 'outsider' brought a fresh perspective to the identified problem.

Self-assessments were made of whether projects had been successful in achieving the aims and

TABLE 10 *Pivotal factor: action researcher–participant relationship*

Perceived positive aspects	Perceived negative aspects
Insider action researcher	
• Improved understanding of issues and context • Enhanced credibility with participants • Challenged barriers to change • Increased commitment to the study • Sustained change	• Familiarity clouded understanding • Conflicting commitments may have caused delays • Participants disclosed information reluctantly • Had limited access to sensitive/confidential information • Perceived as owning the data • Could generate feelings of vulnerability of participants if researcher regarded as having outside approval • Experienced threats from certain alliances • Dependence of researcher or participants
Outsider action researcher	
• Brought fresh perspective to issues • Led to empowerment of participants	• Had difficulty in understanding context • Found it time-consuming to understand context and establish credibility • Lacked concern for the outcomes over the long term • Appeared to have more to gain (e.g. higher degree)

objectives. A comparison, between those who had been successful and those who had not, showed that, in the latter case, there was a larger proportion of outsider action researchers (63% compared to 30%). Recently a 'double act', consisting of a partnership between insider (as change facilitator) and outsider (as researcher) has been recommended.[109] The success of the project, however, may have been influenced more by the position of the insider.

Regardless of whether the action researcher is an insider or an outsider, the development of a positive working relationship between the action researcher and participants in all aspects of the project is critical. As a group they will be required to assess the identified problem, identify possible alternate solutions (plan), implement (take action) and evaluate new practices. Factors relating to both the action researcher and the participants affect the success of the development of an effective action research team.

One factor identified as important in the development of this relationship is the personality of the action researcher, as represented by these examples:

> "without the strength of character, the project would never have reached completion ... personal, interpersonal, intellectual and educational qualities of the project ANP [advanced nurse practitioner, the co-researcher and facilitator] are of utmost importance, and will greatly influence the success of the project."[72]

> "I think personality is very important. It obviously helps people like [X] and me, who are trying to get these people to do a lot out of their own goodwill; [so] we have got to be persuasive and enthusiastic in leading it, and if we show any doubt it would die down. ...you can't get people on your side to try something ... if they don't like you. They won't bother. At the end of the day, people have to get on with you, to cooperate with you. We have had to get along with a lot of people to get as much as we can. You can't really bulldoze people, that doesn't work in a project like this."

> [Focus group 4]

A few participants were reluctant to reveal information into the public domain of the project. The problems addressed by projects included sensitive areas of patient-care delivery and the role and activities of healthcare professionals. Ethical issues arise in the context of any relationship. In action research, the desired closeness and involvement of action researcher and participants may lead to issues relating to confidentiality. This is an issue in any research and is critical in an action research project, due to the exposure of both the action researcher and the participants within the process.

Action researchers and participants had varying levels of commitment to the relationship. This was indicated by the amount of time they dedicated to the project. The inability of certain staff to provide necessary support when required caused difficulty in moving a project forward. This was particularly important if the project was a primary focus for the researcher. This was also an issue in relation to who gained from the successful completion of a project. Some action researchers gained in terms of a higher degree or a research publication, while the participants had to live with the change (which, it was to be hoped, was a positive one).

The relationship between the action researcher and participants was complex and evolving. This meant, at times, a shift of dependence. In some projects, this took the form of participants taking on more responsibility for the project.

There is no ideal way of dealing with the action researcher–participant relationship, apart from acting ethically. This can include developing an awareness of relationships that may disadvantage participants. The ability to maintain successful relationships is not easy and requires close supervision by an experienced action researcher.[112] It is necessary to monitor and examine the perceived relationship from all perspectives and thus to question the tensions that are experienced throughout a project. This critical analysis might provide ideas for positive action to enhance the relationship.

The insider–outsider debate is common to qualitative research, in which similar issues about access and ethics are debated.[119,120] Because the aim of action research is to go beyond description and to introduce change, the issues to be negotiated between action researcher and participants are numerous and complex. Consequently, there is more likelihood of difficulties being encountered. This suggests that action researchers need be cognisant of the possibilities of problems and make efforts to anticipate and address them. Zeni[121] offers a guide to ethical issues and educational action research. Much of her advice would be applicable to action researchers in healthcare but further consideration would need to be given to the ethical tensions that may arise from being both an action researcher and a healthcare professional, that is, balancing the needs of both without disadvantaging or compromising patients.

Real-world focus

An acknowledgement of the context in which the research takes place (a real-world focus) was a key aspect of included action research studies and brought with it both positive and negative aspects (*Table 11*).

This real-world focus is seen as the ability of action research to identify concrete (and often complex) problems, to seek and implement relevant, appropriate changes and to evaluate the effects of these changes. This requires an understanding and acknowledgement of the complex contexts in which healthcare is delivered.

Initial assessment and description of the 'real world' take place in the initial stages of most projects. This is a time when the situation under study is assessed through reflection and research prior to planning changes. Much of the information gathered at this stage has a strong experiential basis. However, less than half (36%) of the included studies provided data (either qualitative or quantitative) on context and conditions prior to attempts to implement change. It was acknowledged that this initial assessment is time-consuming and can constitute a major time commitment.[55,72] It was also found that even though assessing conditions prior to change and the likelihood of change was regarded as important, it was not always an accurate predictor of success in implementing change. This may be due to the lack of precision of the identified indicator(s) or the transient nature of the context. Of two studies that used indicators to assess conditions prior to change, one did not implement change[75] and the other was discontinued prior to completion.[106] Projects highlight difficulties in understanding the real-world context and the difficulties of drawing conclusions relating to changes that may have been made.

Although projects were described as working in the real world, there were project limitations, as described in this quotation:

> "The only common criterion for the selection was qualified nurses [who] worked on Fridays; in these ways the criteria do not reflect the real world."[84]

Executing change in the real world requires an ability to accommodate the present as well as the wider arena of influence. However, this is not always possible and some disruption was reported as necessary, as shown in this quotation:

> "We negotiated some very short-term bed closures so that staff could be released [for a 2-day workshop]."[109]

One of the challenges of conducting research in the real world identified in some reports was the amount of time and perseverance needed to see projects through to completion, as reflected in this quotation from a focus group interview:

> "I think we have all felt this from time to time; with this sort of approach you need a lot of sticking power, a lot of tenacity to see it through, and myself and [X] and [Y], we have been with this germ of an idea now for about 3 years, through thick and thin, through organisational changes, mergers of trusts, resistance from colleagues, sabotage, yes; whereas, had it been more of a discreet package of things, a different approach, then you could have probably managed it in a tighter way, with less fatigue, less external interference..."
>
> [Focus group 4]

Hence, action researchers and participants may have to deal with feelings of frustration over the time it takes to move a project forward and the possibility that, in the end, they may not be able to accomplish their initial goals and objectives. These problems are not unique to action research. However, they may be greater than those that might be expected in other types of research

TABLE 11 *Pivotal factor: real-world focus*

Perceived positive aspects	Perceived negative aspects
• Reflects 'real world' situation • Clarifies context and issues • Increases relevance of research • Addresses mismatches, e.g. between operational and strategic issues • Promotes service-led research • Exposes action researchers to realities of practice	• Creates conflict and tension as complex issues are addressed • Disrupts existing relationships • Fails to meet expectations • Draws attention to issues that may have low strategic or financial significance • Requires time out/away from the clinical area for education, reflection, analysis

projects. The situation is compounded because action researchers and participants must address issues related not only to the management of the project but also to their attempts to implement change. These changes often lead to the disruption and then redefinition of pre-existing procedures and lines of communication.

Reports showed that the real-world focus highlights mismatches between operational or strategic priorities, as identified by managers and research priorities. Research led by service staff had a strong experiential basis. However, when issues identified by staff for research were of lower strategic or financial importance to the trust concerned, there was limited support from key persons.

An advantage of the real-world focus was that researchers were exposed to the realities of practice. It was indicated that this increased their understanding of clinical practice (real-world) situations and, in some instances, provided motivation for action.

Action research is perceived as being suited to promoting change. Winter[19] discussed how action research encourages a questioning approach that seeks alternative viewpoints on a particular issue, which are illuminative and inevitably generate suggestions and opportunities for change. This perception was supported by the findings of the review, insofar as studies indicated this as a reason for choosing this approach. However, a number of researchers were not able to implement a change even after periods as long as 24–36 months.[84,95] Elliot[122] discussed real-world factors, in an action research environment, that are conducive to enabling effective change. He identified management structures that give rise to collegial relationships and peer accountability as being more receptive to change. These are, in fact, similar to the situations created during action research. Kemmis and McTaggert[2] argued that action researchers need to act strategically and realistically. They went on to point out that action research should be conducted in environments in which there is a chance that the project will be successful, otherwise valuable time and resources may be wasted.

The real-world focus of action research has advantages and disadvantages in relation to the implementation of projects. How these factors affect specific projects is dependent on how they are assessed and managed by the researchers and participants, and whether there are mechanisms within the organisation to encourage the changes.

Resources

Resources critical to action research projects were time, staff, money and material, with time being listed as the most important and the most lacking. Most studies focused on 'lack' of resources:

> "A lack of resources can be a strong barrier to implementing change."[88]

In relation to time, two studies reported that projects moved ahead quickly, which could mean that time was saved by using an action research approach:

> "...it must be emphasised that these results demonstrate the benefits after only two or three meetings."[98]

> "...at the third meeting innovations were perceived".[59]

However, most studies reported that action research took a significant amount of time. This included time to negotiate access, to understand the context, to establish group processes and relationships, to accommodate existing working practices, and to undertake analysis. Time was needed particularly in difficult or controversial situations[84,95] and when the time required spanned months:

> "I spent the first few month familiarising myself with the sites selected for the project."[123]

Time was reported as a limiting factor in 31 studies (52%). For six projects it was acknowledged that the aims of the projects were not compatible with the time available:

> "To have fully implemented the project in one academic year was ambitious."[51]

Limitations of time affected both participants and action researchers, as seen from the following two quotations:

> "...time constraints ... one of the biggest disadvantages is balancing research activities alongside a full-time job."[94]

> "I was holding back some of the group by not having implemented some of the planned action for which I had assumed responsibility ... it took from one meeting to the next to transcribe tapes and carry out the first analysis of the data."[79]

Reports suggested that action researchers often underestimated the time required to carry out the project:

> "The ... period of the study may be critical ... 1 year is not long enough."[109]

> "Two action plans were perhaps too ambitious in attempting to achieve change in a short period [9 months] ... Significant changes can take a minimum of 2–3 years ... more realistic objectives could have been set bearing in mind the time limit of the project fell short of the ideal."[101]

One report indicated that the additional time required for action research studies was necessary in order to implement change:

> "An exploratory study resulting in recommendations would have been quicker and easier ... but would not have changed attitudes or resulted in the recommendations being implemented."[44]

Reports indicated that participatory approaches do appear to take time and are not cheap in that sense but do generate other outcomes not expected in conventional approaches. On the other hand, there was a perception that there was a more rapid uptake of innovations as a result of staff involvement in the research and development of a project. Commitment by participants to the project was sustained in situations in which there was an awareness of demands of clinical/service time and time was provided for research activities.

Additional resources are also necessary to carry out a project. Staffing issues were mentioned previously and could be considered in a financial context or in a human resource context. Some managers agreed to replacements or additional staff, which reduced participant workload and enabled them to take part in the action research. This, however, was not always promised and, at times, although promised, was not provided.

Funding for the included action research projects was limited. Information in the included studies does not provide enough information to know the reason(s) for this. It is not known whether it was related to: a belief that the research would not require funding; a lack of knowledge about how to request funding; a rejection of funding (that is, to remain free of the agenda of funding agencies), or a lack of awarding of funds to carry out the research. It is also unclear from the studies whether remarks related to lack of equipment relate to funding *per se* or to a lack of commitment of the involved institution to meet the needs of a research project. It appears that a 'Catch 22' situation may exist. Poor funding means fewer available resources, which in turn means that projects may not be able to fulfil their potential, leading to poor evaluations of the quality of the work. This, in turn, influences decisions regarding future funding of other projects.

Research methods

Research methods refer here to the data collection methods used within the research component of action research projects, as opposed to project management and the implementation of change. In some projects, study reports refer to all of these in relation to the research methods. It is important to add that, since action researchers change practice in order to study it (see chapter 3), this is not unwarranted. However, this tendency towards a lack of distinction between these various components appears to be linked to a lack of information about how the research was carried out.

Descriptions of the research component(s) within the action research reports were frequently limited and incomplete. General statements regarding research methodologies were provided but details of research protocols were infrequent. For instance, reference might be made to the use of qualitative methodologies, with a statement that focus groups were used to collect the data. However, details regarding the research tended to be limited and it was not possible to assess the quality of the research carried out within the majority of action research projects. It is not possible to identify if this lack of detail is a function of limited space in the project report/journal article or simply incomplete research planning and implementation. A flexible word limit could be considered by journal editors in order to facilitate more detailed reporting of action research.

As previously noted, qualitative research methods were used most frequently within the included studies. Qualitative methods were shown to have a dual function in action research studies: that of data collection and of facilitating the participative processes. This was especially true when the research component increased participation, thereby encouraging participation in action components of the project. The review found 11 studies (23%) in which motivation to action was reported as a result of the qualitative research in the process of problem identification.

Problems were reported with the use of qualitative methods. However, the context of the comments suggests that these may be a reflection of the experience of the action researcher rather than a limitation of the method. Data collection methods could be perceived as a threat to participants:

> "...staff reluctance to participate in open discussion."[84]

The need for prospective data collection and analysis is time-consuming, as is the transcription and analysis of the large quantities of data provided during a qualitative research project. There is an indication that action researchers may not have been able or prepared to deal with this aspect of the research:

> "In the event, the tapes of the group sessions were not transcribed and analysed, as too many data were generated for the scope of this project."[93]

Occasionally, relevant essential data could be missed:

> "Our researcher attended many meetings between the practice administrators and consultants ... There were inevitably many key meetings which were private and about which we have no information or incomplete information."[92]

The problem of accessing appropriate information is not unique to action research; it is an issue for all qualitative researchers.

The use of qualitative methods in multidisciplinary groups was reported as problematic in that not all participants were familiar with the key components.[112,123] Providing sufficient time to promote the understanding of the research process is a way of preventing many of these potential problems. This inexperience or lack of training or understanding of qualitative research methods should not be viewed as an inherent disadvantage of action research.

Data from the problem identification phase of an action research project, whether derived from qualitative or quantitative methodologies, were reported in 36% of studies. There was a predominance of omission of rationales for samples, a lack of measurement of change when it might have been helpful, for example, educational effects, and unsubstantiated claims for significant changes. For instance, in two studies[59,79] significant changes were claimed but neither qualitative nor quantitative evidence to support these claims was provided:

> "All six midwives agreed that the most significant achievement of the project was the provision of adequate staffing levels in the maternity unit, particularly on the late shift. This had improved by lessening anxiety, exhaustion and stress **and has improved safe care for mothers and babies**."[79]

> "...The **standard of care severely declined** for some of the patients initially prepared in the ward for PCA [patient-controlled analgesia]."[59]

This type of reporting of findings suggests that action researchers may be either inexperienced in the process of action research, or that they did not fully understand how to use qualitative research methods to monitor and demonstrate changes, or that they simply did not report research method information in journal publications.

Differing opinions were reported in the included studies as to whether their research findings could be generalised, thus reflecting the philosophical perspectives found in action research. Some argued that findings were context-specific. Others argued that issues identified during the action research process were similar to other settings and could, therefore, have relevance in other situations. General application in some of these instances did not refer to the representativeness of findings in the quantitative or probabilistic sense but more to the logical sense of applying/transferring the findings to other, similar situations[19,26] (see chapter 3).

As previously discussed, the focus of action research is practice. Elliott,[122] an influential writer in educational action research, argued that "the fundamental aim of action research is to improve practice rather than to produce knowledge". This view may explain why research is perceived by some to be a small part of the action research process. These action researchers are missing the point that a fundamental aspect of improving practice lies in its evaluation – practice, reflection and research go hand-in-hand.

Project process and management

In the included studies, action research was frequently chosen because of its process. Studies described the incorporation of fact-finding, planning, action, reflection and evaluation as part of continuous cycle or spiral. Responsiveness and flexibility; feedback mechanisms and evaluation were three sub-themes that were recurrent (*Table 12*).

As in many models, the apparent simplicity of action research belies its complexity. Included project reports described the difficulty of comprehending the process in play and that not until a project is well established or completed is there a clearer picture of how all the components fit together.

The responsive and flexible nature of action research was identified as the main strength of the reviewed projects. Studies demonstrated how action research enabled:

TABLE 12 *Pivotal factor: project process and management*

Perceived positive aspects	Perceived negative aspects
Responsiveness and flexibility	
• Receptive to new ideas • Fits with qualitative approach • Promotes participant-led projects • Encourages emerging information to contribute to strategic plan • Allows for more rapid changes in research and implementation	• Leaves the project without established goals and objectives • Lacks clarity – difficult to gain funding, interest, support • Encourages hijacking of project by strong participants • Conceals poor project management as responsiveness • Leads to numerous action plans that spawn complex projects
Feedback mechanisms	
• Enables contemporaneous monitoring • Enhances participation • Provides valuable guidance to the project • Enables more effective planning, developing and implementing • Increases relevance of the study	• Overshadows evaluation • Threatens participants, leading to tension and potentially reducing participation • Takes time
Evaluation	
• Encourages agreement of end-point • Allows for evaluation in any phase of the project	• Discourages establishment of an end-point

- investigation of issues as they emerged; for example, the responses to a questionnaire concerning mouth care raised issues of cost and, subsequently, pharmacists carried out a cost analysis[48]
- a shift in the focus of a project in accordance with clarification of the problem and identified needs; for example, a study shifted focus to welfare rights[45]
- a switch to more appropriate research methods; for example, one study shifted from the use of diaries to interviews[45]
- accommodation of the real world; for example, meetings were arranged to fit in with the demands of practitioners[78]
- rapid response[68]
- contemporaneous monitoring through feedback, providing valuable guidance, and maintaining and developing the innovation[123]
- more formal evaluation when requested by participants[99] or at the end of a phase, for example, the information-gathering phase.[91]

The overall effect, as summed up in one study, was:

> "Rather than being driven exclusively by any one model, the programme was shaped in response to the wants and needs emerging from both the pilot work with practices, and subsequently during the training programme itself."[103]

Another aspect of flexibility and responsiveness was related to reports that studies lacked direction, which could potentially lead to management problems. A lack of direction imposed a limitation on at least one action research study before it started. This occurred because, without clear objectives, it was difficult to secure interest and funding for the project.[43] There is always a danger that the adaptable qualities of action research may be taken to mean that there is no need for project planning and management. It is acknowledged that it may not be possible to predict, at the start of a project, the methods that will be used to evaluate any changes. However, it is reasonable to expect to see clearly stated aims and objectives for the first phase of a project, even if they are about fact-finding. These objectives may be refined or even changed during the project; however, the reasons for any such changes should be explained as part of the action research project documentation.

As would be expected in any approach to research, a lack of direction at the beginning affects the remainder of the study. The identification of the issue to be addressed can be a major undertaking,[100] using up valuable time. As discussed previously, a failure to consult more influential people and groups could lead to objectives or innovations of low strategic significance.[80]

However, something of low strategic significance might have great local significance.

Lack of direction was shown to lead to:

- the formulation of objectives or ideas which could be biased in favour of more powerful groups or persons, including the action researcher[112]
- an inability to address all identified problems[84]
- the generation, sometimes, of extensive ideas.[69]

Rapid feedback can assist in moving the project along; however, care needs to be taken that it does not result in inappropriate actions. On the other hand, feedback can be time-consuming and appear to delay progress of the project. A need, during the project, to move action phases forward can affect where the emphasis is placed in a project. For example:

> "Enthusiasm for the success of action plans led to much emphasis being placed on action, resulting in little time being spent on planning and managing the change."[101]

Evaluation of outcomes is often difficult and can be made more difficult if appropriate outcomes are not identified during a project. However, the nature of action research can make this even more difficult, as the responsiveness and flexibility of the process mean that the focus of study may evolve or change during the project. In addition, there is the difficulty of when to carry out the evaluation, as shown by these two quotes:

> "...once started, there is no natural end [to action research]."[112]

> "...The nature of action research is continuous and, in theory, a never-ending process makes a formal summary of conclusion inappropriate."[101]

However, 90% of studies did provide results of an evaluation as an end-point, which was, in some cases, reported as being negotiated with participants. A number of projects that claimed success reported that, although the action research had formally finished, work was ongoing. For example:

> "As I withdrew from the study, the problem was still being addressed."[59]

It is of interest that while in 54% of studies a lasting effect (impact) was reported, in only two were the results of a re-evaluation reported.[44,48]

The challenges faced by action researchers in the ongoing process of action research are not unique to the method. They are, however, increased by the nature of the process. Researchers attempting to conduct any clinical research project face challenges related to carrying out the project as laid out in their research protocol. Action research, by its nature and through its inclusion of participants as co-researchers and change agents, must deal with an ever-shifting environment, in which the needs of the action researcher, the participants and the patients need to be considered. This complexity means that in order to successfully manage the process, action researchers require expertise not only in all aspects of research design and implementation but also in human resource management.

Knowledge

Action research was chosen because of its ability to produce knowledge and contribute to theory (*Table 13*).

The knowledge derived from the problem-identification phases of action research has been demonstrated as crucial in highlighting gaps in services and inappropriate policy, addressing untested approaches, clarifying issues, developing appropriate innovations and preventing the implementation of inappropriate ones. For example, one study prevented the installation of a computerised system in a hospital that would have been unworkable for nurses; a more appropriate system was developed with their participation.[89]

The knowledge discovered as a result of action research studies also focuses on the development of innovations and preparation for change intervention. This is reflected in the ranking of 'improvement' (64%) and 'developing and implementing change' (60%) as the most frequently reported aims of action research.

While events and outcomes of change were often described, the basis of the change or the theory that might explain the change was infrequently addressed. Interestingly, studies reporting few changes were explicit in providing explanations – of how and why change had not occurred.[49,111,112]

The low prevalence of aims and objectives relating to theory may indicate that, although there may be an awareness of the value of theory development, it is not a primary concern of action research studies as they are currently undertaken. This is indicated by the following quotation:

TABLE 13 *Pivotal factor: knowledge*

Perceived positive aspects	Perceived negative aspects
The knowledge from action research: • Highlights gaps in services • Identifies inappropriate policy • Addresses untested approaches • Clarifies issues • Develops appropriate innovations • Develops practical knowledge • Prevents the implementation of inappropriate interventions • Describes events and outcomes of change	• Theory development currently not a primary concern of action researchers • Participation does not always foster theory development

> "The working party recognise that their use of action research did not result in the development of theory ... it did enable them to work more effectively with a large multi-disciplinary team".[48]

It is possible that participation in and of itself may not foster the development of or contribution to theory:

> "I had assumed that the nurses would have made strong links with the model ... co-researcher responses demonstrate varying levels of theoretical attainment and many experience difficulty relating practice to theory."[59]

A strength exhibited by the reviewed action research studies was their ability to produce knowledge primarily in the initial phases of assessment. A limited number of projects were able to link this knowledge and use it in development.[81,85,89,109]

The outcomes of action research as discussed previously indicate that practical knowledge is developed in the majority of studies and even when specific study objectives are not achieved. Winter[124] argued that action research can overcome the 'impasse' between the disciplines of theory and practice, because it requires a movement or "an exploring back and forth between theory and practice". Results from the studies included in this review indicate that this has not yet been refined in healthcare action research. It would be useful to explore whether this occurs in other disciplines such as education and, if it does, how this might apply to health. It is apparent from the included studies that an important quality of action research is given less emphasis; that is, its capacity to generate different types of knowledge, ranging from the propositional to the practical that may be applied in a variety of healthcare settings.

Conversely, and as discussed in chapter 3, lack of general theoretical abstractions could be a result of the philosophical persuasion of the action researcher. Elliott[122] argued that traditional theory alienates practitioners because they consider that it is idealised and unachievable and, therefore, implicitly critical of their practice. The advantage of action research is that practitioners develop and explore their own hypotheses, which serve to enhance their own and other practitioners' understanding of their work.

Conclusion

The strengths, limitations and complexity of action research need to be widely communicated so that they can be considered, and appropriate strategies identified prior to the commencement of any action research project. Potential areas of tension should be anticipated, and be addressed in action research proposals and explored as part of the action research process. The eight pivotal factors identified in this systematic review could be used as focal points to gain an understanding of the challenges that need to be acknowledged by those proposing to conduct an action research project. Awareness of these factors throughout the process of action research should assist in the achievement of action research project objectives.

Chapter 7

Guidance for assessing action research proposals and projects

The fourth objective of this project was to develop guidance for the assessment of action research proposals and completed projects. The combined research strategy used by this project provided the reviewers with the opportunity to address the first three objectives of the project, while a combination of the results from these provide the data to inform the fourth. This chapter includes a discussion of the need for such guidance, the guidance itself and a short discussion of each of the 20 questions included in the guidance.

The need for guidance

It is possible that some action researchers will regard the use of guidance for evaluating action research as the antithesis of the anti-elitist and democratic principles of the process. There is a risk that by setting standards too high novice action researchers may be inhibited. Conversely, guidelines may provide new researchers with a structure within which to develop their work. 'Purists', who consider the process of action research to be inherently good, might also struggle with the concept of appraising action research. The reduction of action research into a checklist is inevitably dissatisfying. This is reflected in the inability of such a list to capture the interactions between the different components of action research. The growing interest in evidence-based healthcare, however, means that unless guidance is offered, action research may be assessed according to criteria designed for use with other research methodologies and, consequently, be misunderstood or even dismissed. The questions provided in the guidance are designed to help reviewers integrate information in a systematic manner.

Guidance is needed to stimulate a more appropriate system for reporting the results of an action research process. A few writers have made recommendations about how action research might be evaluated.[5,25,57,125,126] They appear to agree that the assessment of action research proposals and reports should include consideration of the process of action research, particularly the participatory processes that require an examination of both theory and practice. The iterative nature of the action research process has implications for the way in which objectives and indicators for success of a project are formulated. Not all outcomes can be determined in advance, and objectives and indicators need to be adapted and further developed during a project. The participatory process with various stakeholders and interests requires skilled facilitation. Thus, the reporting of action research requires information that is not standard to other formats of research report.

The review findings also support the assertion by Popay and colleagues[127] that there are general aspects in the evaluation of research that could be considered whatever the research method. These include discussions related to background, design, sample, data collection methods and analysis. Readers will note that guidance in the sections relating to these aspects of research are generalised. This is deliberate. Qualitative or quantitative research methodologies may be employed during the action research process. Readers are referred to Popay and colleagues,[127] Moher and colleagues[128] and CRD[27] for particular advice on assessing the validity of specific research methodologies that may be employed within the action research process.

For this project, the guidance has been generated from a synthesis of the results of objectives 1–3 (see chapter 2). This guidance will, it is considered, allow action research protocols or projects to be assessed on the basis of criteria relevant to the process of action research.

It is common when evaluating quantitative research to assign a score to research studies.[128] However, the authors would argue that this is inappropriate in the case of action research studies. As the review demonstrates, there is extensive variation of emphasis on aspects within the action research projects. Hence, it is not possible to establish any valid weighting of the components of the action research process

that would allow for the logical assignment of numerical scores. This problem is related not only to action research but is shared with quantitative research assessment scoring systems.[129] The authors also hesitate to suggest minimum quality indicators for action research for the same reasons, apart from offering the guidance.

The guidance will have audiences from at least two potentially different backgrounds, namely action researchers (primarily qualitatively based) and members of research funding committees (primarily quantitatively based). These groups are likely to have different discussions and an attempt has been made to take both into account.

The guidance is a draft and has not been tested in practice. It is expected that it will need modification following field testing and as understanding of action research evolves. The set of questions are seen as a tool for critical reflection and it is hoped that they will be employed to enhance the assessment, implementation and interpretation of action research.

Notes on the guidance questions

As indicated, the guidance questions for assessing action research proposals and reports were developed from literary sources identified in this report, action researchers and findings of the review. There was no evidence to support a hierarchy of action research, in that no single application of action research appeared to be more successful than any other.

A problem with identifying determinants for guidance on the assessment of action research proposals and reports is that it can easily develop into a technical exercise, and the philosophical persuasions that lie behind action research, such as social improvement, can quickly become neglected. It is important for action researchers to stipulate their philosophical approach and to indicate how it has influenced the development of their action research project. The questions are not meant to be prescriptive but rather as a means of understanding and developing further the action research process.

It is accepted that to research and reflect on every aspect of the process is impossible. However, there is a need to justify those areas that are chosen for research and reflection. These and other issues can be informed by the 20 questions and the pivotal factors.

It would appear appropriate for a full report and proposal of an action research project to attend to all the suggested areas. This, however, would not necessarily be the case (indeed, it would be impossible) for a journal article, in which one aspect of the work might be discussed, with the reader referred back to the main report for more details.

The 20 guidance questions and the points for discussion are listed below. At the end of the chapter, the questions are listed again, together with additional questions that could be used in an assessment process. The 20 questions are presented in the past tense, as would be used in the assessment of a completed action research project, while assessment of protocols would be phrased in the present tense. The guidance is in a format similar to that currently in use within the NHS. Discriminating components of action research are indicated by an asterisk (*).

1. Is there a clear statement of the aims and objectives of each stage of the research?
As previously discussed, the issue to be addressed and the aims and objectives were not expressed explicitly in between 10% and 20% of the included studies. This may be accounted for by the difficulty in defining the exact purpose and outcome of an action research project at the outset. However, sub-objectives that might have been defined as the project developed were rarely reported. For the sake of clarity, it seems reasonable for action researchers and participants to articulate their aims and objectives in reports. In proposals, it would be impossible to specify aims and objectives beyond the first phase (see question 3).

2. Was the action research relevant to practitioners and/or users?
The reviewed projects identified and sought to resolve local tensions, ambiguities, problems and 'gaps' within healthcare organisations, services and practices. The evidence suggests that action research was versatile. The studies that were reviewed took place at all levels of healthcare, for example, from GP's surgeries and in-patient services to local authorities. A range of issues was tackled, including the technical, the educational and the interpersonal. The studies sought new understandings that, in general, had relevance beyond the immediate situation. Such characteristics of action research suggest that it would be appropriate to discuss its relevance to local and wider contexts in reports and proposals.

3. *Were the phases of the project clearly outlined?

The review of the literature showed that there are a number of misconceptions in relation to the primary components of action research. A large number of publications that were identified by the initial search were later excluded because they did not demonstrate (or intend) a process of problem identification, action, evaluation and re-assessment, or have a participatory component. This process is considered a distinguishing attribute of action research and thus would be expected to feature in reports and proposals.

It is difficult to specify, in advance, specific activities or cycles, because the outcomes of each phase inform the next. It would denigrate a key characteristic and strength of action research if this important factor were ignored. The first phase of action research, which includes an initial analysis of the situation under study, sets the scene for subsequent phases and, hence, it is essential that this is planned and undertaken as thoroughly as possible. It is necessary to describe and justify how the first phase of a project might be executed, and to estimate what the outcomes of that phase might be and how those outcomes might influence future phases. Intermediate reports could be submitted to funding agencies as a condition of funding. These reports could outline the aims, objectives and methods of subsequent phases of the project.

4. *Were the participants and stakeholders clearly described and justified?

As the review demonstrates, appropriate selection and inclusion of participants and stakeholders is vital to the success of an action research project. It is appropriate for action researchers to explain how individuals (or groups) were selected and why their participation in the project was considered important. They should also explain how adjustments to project aims and objectives necessitated the inclusion of additional participants. It would be helpful if action researchers described how conflicts were addressed, for example, how skilled facilitators assisted groups in dealing with such conflicts.

5. *Was consideration given to the local context while implementing change?

Challenges described in included studies indicated a lack of thoroughness in the understanding of local beliefs, values and structures or failure to identify the knock-on effects of a proposed project. These factors are crucial to the success of any project and it would appear to be a critical consideration prior to and during any action research process. Thus, discussion of these factors should be expected in action research reports and proposals.

6. *Was the relationship between researchers and participants adequately considered?

The studies included in this review indicate the importance of the relationship between action researchers and participants, and also the difficulties faced by action researchers in attempting to establish participative relationships. Some of the included studies did not provide details of the mode of participation, that is, the participants' role in the decision-making process and involvement in the research, or their level of participation. The included studies indicated a need for action researchers not only to be aware of the potential benefits of participating in the project but also to recognise that participation takes time and that it cannot be forced. Action researchers should be expected to discuss how participation has served or will serve to enable practitioners and users to address local conflicts/problems in reports and proposals.

In only a few studies was the effect of action researchers' and participants' perspectives on the collection and analysis of data discussed critically. Reflexive commentaries help action researchers to analyse their values and beliefs, and how they and others have influenced the project. This critical attitude leads to a more informed understanding of the limitations of their approach and, at the same time, may improve the scope of their work. Thus, it appears reasonable to advise action researchers to be reflexive in their accounts and to suggest that action researchers indicate in proposals the reflexive qualities of their work.

7. Was the project managed appropriately?

Management of action research projects is complex and requires a variety of skills. Key persons contributing to the success of included projects tended to be senior nurses or managers. They were influential in bringing together the objectives of the action research group and the trust or health organisation in which the research was conducted. The outcomes and impact of action research is likely to be greater, that is, the effects are likely to have greater strategic significance if those in powerful positions are involved. Awareness and discussion of the importance and the role of key persons appear to be essential components of reports and proposals of any action research projects.

The review indicates that one of the strengths of action research is its real-world focus. Action

research provides a framework for researchers to investigate current issues and implement change. However, within this real-world focus lie many challenges. Reports should include discussions on how projects were managed, so that readers can understand the outcomes. This review suggests that a more rigorous approach to action research may be required. Action researchers need to convince funding agencies, ethics committees and other agencies that they have a comprehensive understanding of both change processes and research: for example, that they have experience of (or access to) not only action research but also management of research projects and groups. They should demonstrate that they have secured appropriate support that will be maintained throughout the study, so that comprehensive planning is carried out before and during the action research process. This includes appropriate timetabling of activities, together with the ability to be responsive and to justify changes within the action research process.

8. Were ethical issues encountered and how were they dealt with?

As the review indicates, action researchers often work with vulnerable groups of people who might be at risk from unintended and unknown consequences of the action research process. It is important to consider these in project design, to discuss such issues in action research reports, and to be aware of how reports might negatively affect participants. For example, some participants play a significant role in the action research process and, thus, it may not be possible (or desirable) to maintain anonymity. However, action research proposals should show how ethical issues will be identified and monitored during the project.

In addition, in some studies professional ethics are constantly under review during the action research process; discussion of this would reasonably be expected in the project report and proposal. This is pertinent to studies which to seek to develop professional roles, in which there will be an examination of the values and assumptions which underpin practice.

9. Was the study adequately funded/supported?

The results of the review indicate that action researchers consistently felt under-resourced. The term 'resource' is used in its broadest sense and includes time, funds, staff and materials. It is not possible to tell from this review if this shortfall is due to a lack of application by action researchers to funding and support agencies or to a lack of approval from these groups. Another explanation may be that there was a lack of anticipation, on the part of the action researchers, in relation to the resources required for the project (especially time). It is expected that the application of the guidelines developed in this review will encourage action researchers to develop appropriate time schedules and budgets for future work, and the same criteria will guide funding agencies in providing appropriate funds and support. This section of any research project report should also include an acknowledgement of any conflicts of interests related to support or funding of a project.

10. Was the length and timetable of the project realistic?

Action research often aims to affect the culture of study participants; the review suggests that this takes time and that funding agencies ought to be prepared to fund studies for 3 years or more when necessary. Action research proposals should contain an approximate timetable and milestones to demonstrate that the timescale is realistic.

11. Were data collected in a way that addressed the research issue?

As discussed previously, the extent and type of research/evaluation varied between studies. There were examples that demonstrated the potential of action research. Indeed, some studies used multiple research strategies to collect data. However, not all projects addressed important methodological issues: for example, whether the research method(s) is/are appropriate to the question(s) being addressed. It is easy with the benefit of hindsight to suggest how research might have been carried out. However, notwithstanding the aims, and the often qualitative and evolutionary nature of action research, there were clear indications from the included studies that research was secondary to action and, consequently, opportunities were missed for in-depth and comprehensive data collection. Whatever the research methods selected, action research reports should provide explanations that demonstrate that they were appropriate to the issue(s) under investigation. It may also be appropriate before the first phase begins to indicate how research might be employed to address the aims and objectives by specifying potential research questions, with a proviso that, as the project develops, these might be revised. The amount of detail available depends, of course, on the extent and depth of preparatory work that has been completed.

The lasting effects of action research were discussed in just over half of the projects reviewed. They were wide-ranging but, at times, difficult to

assess. This was because it was often difficult to determine whether effects were directly attributable to the project. Greater emphasis on the research aspect of action research should make it easier to discern impacts, although the nature of the research means that this dilemma will never be totally solved.

12. Were steps taken to promote the rigour of the findings?

There was recognition and demonstration of the value of feeding-back information to participants, and discussion of the mechanics and purpose of this feedback in some of the studies reviewed. This contributed to an understanding of the action researcher–participant relationship. Triangulation of methods was also frequently employed. This featured as within-method or between-method triangulation, which means that either several qualitative or quantitative methods were used, for example, unstructured interviews and participant observation, or both qualitative and quantitative methods. It is reasonable to expect a discussion of the value of triangulation according to the circumstances of each project. No matter what research method has been used in a project, it is useful for action researchers to outline clearly what steps were taken to ensure the quality of the data. In action research proposals, researchers need to indicate that their approach will be rigorous, while subsequent reports should include a justification of the methods of data collection, data checking and changes in data collection during the research.

13. Were data analyses sufficiently rigorous?

As with data collection, the review found that, in general, more information regarding data analyses is necessary in order to understand the process and outcomes of a project. In the case of qualitative research, this might mean derivation of categories and themes, and how they informed practice or the next phase of a project. Quotations from participants are often used as evidence in qualitative research, and information could be presented to explain how these were selected for inclusion in the report. Similarly, for quantitative research this means an explanation of the management of data, the application of statistical principles and the interpretation of results. For the reasons already given, it is not always possible to predict methods of data analyses in an action research proposal; however, applicants would be expected to refer to how they might expect to handle specific types of data.

14. Was the study design flexible and responsive?

Flexibility was cited as a reason for choosing action research. The findings suggest that there is a need to balance the creativity that arises out of not predicting all the processes and outcomes of a project against the need to be thoughtful, systematic and productive in one's actions. Action researchers should explain how they have adapted their activities and research to the circumstances of the research setting.

A number of action researchers managed to structure their work so that it could easily be communicated, while others, unfortunately, made it difficult for the reader to make sense or 'unpick' their projects. As part of the review, a data extraction table (see appendix 6) was generated which helped the reviewers to summarise and compare methods, findings and outcomes of different phases of an action research project. Such a table may be employed as a structure to assist in the reporting of action research findings.

15. Are there clear statements of the findings and outcomes for each phase of the study?

In general, several outcomes are identifiable at the end of each phase of an action research project. The notion of outcome is interpreted broadly in action research and relates to outcomes from reflection, action and research. These should be presented clearly and critically appraised. For example, an assessment of a situation is made during the first phase of action research and is an important outcome of the project. The outcomes from the evaluation phase might include personal and professional developments, as well as the findings from research conducted during the action research process. In proposals, it would appear to be undesirable for specific outcomes to be pre-determined; however, an indication could be given of the type of outcomes that might be expected.

16. Do the researchers link the data that are presented to their own commentary and interpretation?

As the review shows, self- or collective reflection is often cited as an important element of action research. Reflection is a thread that runs throughout a project and contributes to theoretical understanding and practice development, yet it is frequently not clearly described or discussed. Reports should contain explanations of how reflection was employed in the project, particularly in relation to practice or service developments and to the research data gathered during the project. It would also appear reasonable for proposals to indicate how reflection might be employed as a critical endeavour and be used to monitor and inform the action research process and outcomes.

17. Is the connection to an existing body of knowledge made clear?

In just over a quarter of studies it was claimed that theory would be generated or a contribution would be made to theory. However, the theory to be generated was not well defined. Action research reporters often overlook the generation of theory. Their publications tend to focus on the action aspect of action research, to the detriment of the research and theoretical component, that is, on the action rather than the reason for it. Furthermore, when theory was considered, the focus tended to be on the process of change, and theoretical insights into the topic under study were often missing. Interpretation and explanation of events and findings need greater emphasis if action research is to realise its potential in the context of healthcare. To this end, action researchers should consider the theoretical implications of their work from the start, as these may offer a useful focus. Furthermore, consideration of findings from different theoretical perspectives may be a vehicle for critical discussion and action. It is acknowledged that some proponents of action research consider the development of theoretical generalisations as secondary to the development of practical knowledge.

18. Is the extent to which aims and objectives were achieved at each stage discussed?

Reports were primarily presented in a narrative format that did not explicitly indicate the extent to which aims or objectives were met. This process was, of course, hampered in those projects that did not have clearly defined aims and objectives. It would contribute to methodological debates if reports could include data and discussion on successes and/or failures.

19. Are the findings transferable?

The review findings suggest that although the action research was locally relevant and driven, many of the outcomes would be of value to other health service professionals/services. Some of the findings also had theoretical potential beyond the setting in which the project took place. It would be helpful for reports to contain detailed discussions and descriptions of the context of the action research to allow readers to assess whether the changes and findings could be usefully transferred to their own settings.

Multisite action research projects may be particularly well placed to provide an overview of issues that might be applicable to areas beyond those studied.

20. Have the authors articulated the criteria on which their own work is to be read/judged?

As the review indicates, action research does not fall easily into the categories usually used for reporting research that are expected by researchers or academic audiences. Some studies recommended that action researchers stipulate how their report should be read, in order to counter possibly inappropriate assessment of action research projects. The existing variations in action research suggest that it is reasonable for the researcher's position or standpoint on action research to be presented, so that their report or proposal is regarded appropriately. This has particular relevance to the research and reflective modes adopted and whether action researchers choose to generalise beyond their immediate setting.

Guidance: 20 questions for assessing action research proposals and projects

The 20 questions are phrased in the past tense as would be used in the assessment of a completed action research project. For the assessment of an action research proposal, the 20 questions would need to be phrased in the present tense. The discriminating components of action research are indicated by an asterisk (*).

1. Is there a clear statement of the aims and objectives of each stage of the research?

- Did the authors of the project clearly define the aims and objectives of the project?
- Were the aims and objectives appropriate?

For project proposals these may only include aims and objectives of the first phase of the project and a description of when, and on what basis, future objectives will be generated.

2. Was the action research relevant to practitioners and/or users?

- Did it address local issues?
- Does it contribute something new to understanding of the issues?
- Was it relevant to the experience of those participating?
- Is further research suggested?
- Is it stated how the action research will influence policy and practice in general?

3. *Were the phases of the project clearly outlined?

- Was a logical process in evidence (or intended)? including:

– problem identification
– planning
– action (change or intervention that was implemented)
– evaluation.

- Did these influence the process and progress of the project?

4. *Were the participants and stakeholders clearly described and justified?

- Did the project focus on service users and/or health professionals?
- Is it stated who was selected and by whom for each phase of the project?
- Is it discussed how participants were selected for each phase of the project?

5. *Was consideration given to the local context while implementing change?

- Is it clear which context was selected, and why, for each phase of the project?
- Is there a critical examination of values, beliefs and power relationships?
- Is there a discussion of who would be affected by the change and in what way?
- Was the context appropriate for this type of study?

6. *Was the relationship between researchers and participants adequately considered?

- Is the level and extent of participation clearly defined for each stage?
- Are the types of relationships that evolved over the course of the project acknowledged?
- Did the researchers and participants critically examine their own roles, potential biases and influences, that is, were they reflexive?

7. Was the project managed appropriately?

- Were the key persons approached and involved where appropriate?
- Did those involved appear to have the requisite skills for carrying out the various tasks required to implement change and/or research?
- Was there a feasible implementation plan that was consistent with the skills, resources and time available?
- Was this adjusted in response to local events and participants?
- Is there a clear discussion of the actions taken (the change or the intervention) and the methods used to evaluate them?

8. Were ethical issues encountered and how were they dealt with?

- Was consideration given to participants, researchers and those affected by the action research process?
- Was consideration given to underlying professional values? How were these explored and realised in practice?
- Were confidentiality and informed consent addressed?

9. Was the study adequately funded/supported?

- Were the assessments of cost and resources realistic?
- Were there any conflicts of interest?

10. Was the length and timetable of the project realistic?

- Is a timetable given for the project and, if appropriate, an indication of where the section being reported fits into the overall timetable?

11. Were data collected in a way that addressed the research issue?

- Were appropriate research methodologies used to answer research questions?
- Is it clear how data were collected, and why, for each phase of the project?
- Were data collection and record-keeping systematic?
- If methods were modified during data collection is an explanation provided?

12. Were steps taken to promote the rigour of the findings?

- Were differing perspectives on issues sought?
- Did the researchers undertake method and theoretical triangulation?
- Were the key findings of the project fed back to participants at key stages?
- How was their feedback used?
- Do the researchers offer a reflexive account?

13. Were data analyses sufficiently rigorous?

- Were procedures for analysis described?
- Were the analyses systematic? What steps were made to guard against selectivity?
- Do the researchers explain how the data presented were selected from the original sample?
- Are arguments, themes, concepts and categories derived from the data?
- Are points of tension, contrast or contradiction identified?
- Are competing arguments presented?

14. Was the study design flexible and responsive?

- Were findings used to generate plans and ideas for change?
- Was the approach adapted to circumstances and issues of real-life settings: that is, are justifications offered for changes in plan?

15. Are there clear statements of the findings and outcomes of each phase of the study?

- Are the findings and outcomes presented logically for each phase of the study?
- Are they explicit and easy to understand?
- Are they presented systematically and critically – can the reader judge the range of evidence/ research being used?
- Are there discussions of personal and practical developments?

16. Do the researchers link the data that are presented to their own commentary and interpretation?

- Are justifications for methods of reflection provided?
- Is there a discussion of how participants were engaged in reflection?
- Is there a clear distinction made between the data and their interpretation?
- Have researchers critically examined their own and others' roles in the interpretation of data?
- Is sufficient evidence presented to satisfy the reader about the evidence and the conclusions?

17. Is the connection with an existing body of knowledge made clear?

- Is there a range of sources of ideas, categories and interpretations?
- Are theoretical and ideological insights offered?

18. Is there discussion of the extent to which aims and objectives were achieved at each stage?

- Have action research objectives been met?
- Are the reasons for successes and failures analysed?

19. Are the findings of the study transferable?

- Could the findings be transferred to other settings?
- Is the context of the study clearly described?

20. Have the authors articulated the criteria upon which their own work is to be read/judged?

- Have the authors justified the perspective from which the proposal or report should be interpreted?

Chapter 8

Discussion

The issues related to the methods used in this project are discussed here, followed by a discussion of various aspects of the results, with the aim of exploring the potential roles of action research in healthcare in the UK.

Project methods

A combination of methods was used in this project: a preliminary and systematic review of the literature and a consultative process. These methods identified action research projects carried out in healthcare settings in the UK and obtained the opinions of action researchers regarding the action research process. The authors consider that the methods complement each other and that the systematic nature of the first phase of the project was strengthened by the qualitative nature of the second.

The criteria for the systematic review limited inclusion to studies carried out in healthcare settings in the UK that had demonstrated a partnership between action researchers and participants, which involved them in a process of problem identification, planning, action and evaluation. These criteria meant that studies in which only the participatory assessment phase of the work was reported, and whose authors did not express their intention to take further action, were excluded. It is possible that by excluding these reports some information has been missed related to the commencement of action research projects.

Some writers have argued that undertaking research with clinicians or users is action research, because the action researcher is working in collaboration with others to investigate a mutual topic of interest. Bearing in mind, however, that action research is carried out in order to understand and resolve a practical problem, an expressed intention to undertake further work after the initial problem identification would be expected in action research studies. The key point is that action has to be seen as part of a process that leads to change, the development of knowledge, enhanced practice or social justice. The definition that was developed, and which guided this review, stipulates that the action research process needs to be dynamic and have interlinked research, action and evaluation. Hence, studies that lacked this were excluded.

Data extraction and synthesis of data from the included studies and the consultative process posed a substantial challenge. In terms of the systematic review, frequencies for selected variables have been calculated. For objective 3, the strengths and limitations of action research, the review has more in common with meta-ethnography as described by Noblit and Hare,[28] who discussed how, in attempting to arrive at a holistic interpretation of qualitative studies, reviewers need to decide how individual study results are related; this is done through a process of comparing and contrasting findings. Here, the articles were read and data extracted that pertained to the strengths and limitations of action research. These were then grouped. The process was not straightforward and the data were grouped and regrouped until there was satisfaction with the eight pivotal factors.

As previously discussed, the concept of conducting a systematic review of action research has been contentious. In the light of the objectives of this review and experiences in this project, it is proposed that this review of action research would allow for an assessment of the variety of action research being carried out in healthcare settings in the UK. This review did not fall into the classic category of a systematic review of effectiveness. In fact, the review could be criticised because it has not identified or included all the available action research projects carried out in the UK in the defined period. More studies have been identified and forwarded to the authors during the writing phase of this report. Although these studies have not been included in the review, the authors are confident that the time taken to assess and extract data from them would not have changed the conclusions of this review. In fact, it is our opinion that they would have simply confirmed the information and analysis of data obtained from the initial studies that met the inclusion criteria.

Definition

The definition of action research attempts to be inclusive of the existing descriptions and

interpretations. It includes the essential components and the philosophical underpinnings of action research as identified through examination of the writings of key current and historical action researchers.

Action research in the UK

Of the included studies, 31% were undertaken as first or higher degree projects. Most were carried out by health professionals working in the NHS or in educational institutions (as opposed to the community). Nurses were the primary participants in the included studies. These factors need to be considered when establishing a dissemination strategy for this report. It was an unexpected finding that users were infrequently described as co-researchers or full participants, although some studies did assess and evaluate their work by consulting or surveying patients and clients.

Analysis of the systematic review and consultative process

The perceived challenges in implementing action research were identified in chapter 6. However, overall, the results of the systematic review and consultative process suggest that action research can contribute to the achievement of aims and objectives of the Department of Health R&D programme.[130] Specifically, this is in relation to innovation, improvements in healthcare practices, development of knowledge and understanding in practitioners, and involvement of users and NHS staff. The results of the small proportion of projects undertaken by those outside the nursing profession suggested that an action research approach can be helpful for all health professionals.

Innovation

Using the term broadly, innovation featured highly on the agendas of the included action research studies. This suggests that action research may be chosen not only as an approach to research but also as an approach to change management and practice development.[131] The ability to address complex issues while moving between problem identification, planning, action and evaluation is the appeal of action research for many healthcare researchers.[18]

There is a view that, within healthcare delivery, research and change should be separated. This view suggests that the importance and process of change should be integral to the culture of the healthcare organisation and that appropriate mechanisms to facilitate change, based on best evidence, should be a part of the overall management strategy. Proponents of this view argue that both the research and change are compromised when they are brought together in the form of action research.

The results of this review suggest a different perspective. There are indications that there are possibilities for the understanding and development of innovative practices, services and organisational structures through the iterative movement between research and change, as is the case in action research. If the fundamental goal is to develop practice underpinned by research, it does not make sense to separate the two. As a recent review of evidence related to the implementation of change in clinical practice states:

> "...any attempt to bring about change should first involve a 'diagnostic analysis' to identify factors likely to influence the proposed change."[132]

and

> "...multi-faceted interventions targeting different barriers to change are more likely to be effective than single interventions."[132]

It is possible for action research to be one of the facets of such interventions.

The studies included in this review of action research addressed a wide variety of clinical, educational and service care issues, and demonstrated the wide range of issues amenable to the action research process. The issues addressed were topical and consistent with current NHS policies (for example, clinical governance, evidence-based practice).[133] This could be interpreted as an indicator that action research is operating at the leading edge of healthcare practice.

A frequently cited criticism of action research is its emphasis on local problems, as defined by practitioners, and therefore an inability to generalise the findings. The results of the review demonstrate, however, that study topics have both local and global perspective and implications. Assessing whether the results of action research projects have had or could have an impact outside their immediate clinical area was beyond the scope of this review.

A feature of action research that leads to innovation is its acknowledgement of the complex nature of social situations and its ability to be

responsive and flexible, and provide feedback. However, this complexity demands that action researchers possess a variety of skills. These include knowledge of multiple research methodologies, as well as skills related to project and group management. Examples from problems arising in the included studies suggest that action researchers do not always possess these skills.

The findings indicate that the cyclical nature of action research is seen to be important. Utilising such a process means that participants have input at various stages throughout a project. This input allows action researchers and participants to evaluate and make adjustments as the project progresses. This fits with Roger's theory of 'diffusion of innovation', in which 'trialability' (for example, things can be tried and then changed) and 'observability' (results can be seen) are important components in the successful implementation of change.[134,135]

Prior to any change or improvement, action research promotes the collective gathering of information and a thorough investigation and analyses of the issue under study. The included studies showed this as a strength of action research. Through collaborative assessment, reflection and research, constraints and opportunities are 'uncovered' and examined within the context of the proposed change. In addition, consideration can be given to personal and professional relationships, beliefs and values. Problems which may appear, for example, simply technical may be as much a function of individual or organisational philosophies or policies, and be symbolic of the exercise of authority of a person or group. Within an action research process, conflicting beliefs, values and the nature of relations, which might form barriers to implementation, are identified. The participatory process helps to reflect on these issues and promotes conscious decisions making relating to how barriers can be overcome (see, for example, Crowley[74]).

The potential impact of action research was found to be another advantage. Impact, for the purpose of this review, was defined as 'having a lasting effect or influence'. Impacts were reported as change in practice or continuation of a given project over and above those reported as outcomes. Here, then, arises one of the difficulties encountered by action researchers. How do you assess outcomes in projects that may not have clear end-points? This poses a problem for empirical researchers who would prefer to be able to attribute effectiveness to a research project. On the one hand, action researchers would argue that such an expectation is unrealistic, and that the ethos of action research does not allow for such evaluations and conclusions; on the other, it could be argued that the inclusion of more specific aims and objectives, identification of indicators of change, and well-planned and executed research as part of the process of change, would enable clearer attribution of effects. There is no easy solution to this dilemma. Action research has played a role in innovation in healthcare; however, the review suggests that for a variety of reasons its potential has not yet been fully realised.

Improvements in healthcare practices

This review demonstrates that action research has a potential role to play in the improvement of healthcare practices, services and organisation. Quantitative research methodologies demand use of measurable variables and the implementation of planned procedures allowing limited opportunities for development and innovation. This approach is useful for the investigation of clinical problems and the measurement of the effectiveness of an intervention. However, it is limited in the extent to which the perceived reality and complexity of healthcare practice can be represented. Qualitative research methodologies based on a naturalistic research paradigm[120] are more appropriate to describe the complexity of organisations, social relationships and human behaviour. They are increasingly being used in the field of health.[32] However, a qualitative research process, although providing opportunities for participants to express their ideas, feelings and suggestions, is still extractive and does not involve the practitioners and beneficiaries of services in the decision-making process. The result is that the opportunity to enhance ownership and active cooperation in the development of best practice is missed. What has become apparent is that these methodologies individually have limitations in their ability to actually improve healthcare practice.[13] However, action research provides an opportunity to use these methodologies individually or in combination, to address complex practice issues.

Discussions related to the implementation of research findings suggest that quantitative and qualitative research have often been undertaken in a practice development vacuum, with no immediate intention to enhance healthcare practices. Recent government policies[130] seek to address this by encouraging the dissemination and use of research, under the umbrella of evidence-based practice. Systematic reviews of

research are key to the evidence-based practice movement[136] and provide healthcare workers with access to evidence of effectiveness. The current direction from the Department of Health[137] describes a linear progression that moves from review of evidence of effectiveness, to the formulation of frameworks and on to the implementation and measurement of practice against these frameworks. However, it could be argued that this approach is disempowering and potentially disabling, because it requires passivity on the part of healthcare professionals. It requires them to wait for direction and then to act according to directives from national bodies. As shown, through its participatory process, action research can provide an opportunity for participants to take responsibility for their own learning, research and practice developments, and to view them as integral and interdependent components in the achievement of quality care. In other words, action research is a potentially useful additional approach to improving healthcare practice that embraces professionals' and users' direct participation, and the integration of education, research and practice development.

There is a limit to how effective the results of systematic reviews[138] and national frameworks can be in determining activities at local levels. The findings from this review indicate that action research can assist in determining local priorities and in designing plans for the use of resources, facilities, and involvement of local groups. Action research can address important and unique local idiosyncrasies in ways that the national frameworks and audit cycles may be unable to achieve. The findings demonstrate that action research could be used as a valuable component alongside other methods in a strategy for improving the quality of healthcare delivery within the NHS.

Development of knowledge and understanding

All research aims to generate knowledge, and action research is no different. However, the epistemological focus of action research is the production of knowledge that is of direct relevance to people and informs both their work and lives. What differentiates action research is the underlying philosophy of education, empowerment, support and 'emancipation' of research participants.[130] These were not frequently-cited reasons for choosing action research. It was not possible to tell if these were not listed because they did not apply or because they may have formed secondary or unconscious reasons for selection of the approach. Certainly, the themes of education and support appear in the discussions of the roles and outcomes of action research.

The generation of knowledge or theory was reported to be important in about half of the included studies. The knowledge gained was both theoretical and practical. Few projects showed evidence of a contribution to the development of theory, except in the production of knowledge from the assessment phase of the action research process. However, there was consistent emphasis and priority given to the increased personal and professional knowledge of participants, as might be expected from certain philosophical perspectives that underpin action research. Conversely, the lack of theoretical developments may be due to lack of educational preparation of the researchers in theory generation.

The review reveals that action research may produce findings and develop knowledge that has relevance beyond the immediate situation. However, as in other research, the difficulty remains of finding mechanisms by which to apply these appropriately in other research settings. Even though there are similarities between clinical care settings, the premise of action research requires that individual assessment (problem identification) be made in each action research situation prior to the implementation of changes. The included studies highlight the advantages of changes that are internally developed as opposed to being externally imposed, and encourage the use of action research to facilitate this development.

An analysis of personal and professional ethics is encompassed in action research and is of increasing importance to the NHS. Ethical issues were described in the included studies; however, they were not explicitly reported as a reason for selecting action research. Whether action research generates more ethical problems than it solves is open to debate. There is concern about projects that may purport to be action research but are conducted without consideration of these ethical issues.[122]

Involvement of users and NHS staff

As previously noted, the low level of user involvement in the included action research studies was surprising. When users were involved their role was primarily consultative. Insufficient resources, lack of knowledge about how to facilitate their participation and lack of confidence may be possible explanations. In the few projects that have included users, for example, Bond and Walton,[96] favourable outcomes are reported in the services

provided. Action research has potential in promoting user involvement in healthcare. Reasons for the lack of reported studies need to be investigated.

Participation of people directly concerned with the situation is the most frequently reported reason for choosing action research. There is a consensus that participation is a fundamental aspect of action research although, as was demonstrated in the section on the strengths and limitations of action research, there are variations in what is meant by participation. An important function of participation mentioned in various reports was a sense of ownership of the research and a commitment to change in the light of the findings. However, the literature also indicated that action research is related to working with oppressed groups and is used to address unequal relationships.[7,11] The included studies did not identify this as a focus. It could be argued that the participants in the studies were primarily from groups within the health services (for example, nursing and other professions allied to medicine), who work at the lower end of the healthcare hierarchy. This view is strengthened by the fact that change was the next most common reason for choosing action research. Nurses and others in the professions allied to medicine are frequently excluded from the decision-making process. Their selection of action research may be influenced by their need to increase their participation in this process and lead to greater empowerment.

A number of the wider issues addressed in the included studies reflect managerial issues. Hart[139] drew attention to the fact that action research and its processes may be subverted to suit the goals of managers. She also explored how reflection, used as a component of action research, may emphasise individual rather than group or organisational responsibilities for problems. This can serve to deflect resolution of problems from an organisational to a more personal level. This shift in focus is more likely to suit the working agendas of managers than health professionals or service users. Kemmis and McTaggert[2] argued that action researchers needed to act strategically. It would appear from the included studies that action researchers do this through a combination of their own interests and those of managers. This combination appears to be used in order to gain support and funding for their studies. However, care needs to be taken to ensure that the interests of all participants are considered throughout the action research process.

An additional factor pointed out by Somekh[65] is that there is a need to balance practitioner participation in the research process with non-research responsibilities. Examples from the review indicated that this was often problematic, with clinical priorities interfering with planned research activities. Discussion about the lack of time to undertake both activities was a common theme in the reports. This issue is common to other types of research but perhaps is more prominent in action research because of the emphasis on participation.

Even though action research was chosen because of its recognition of the context of the research and change, not all researchers explored critically the effect of the action researchers and participants on the study. A few reflexive accounts exist (for example, Waterman *et al.*[49]) that formally recognised the hermeneutic characteristic of action research. The value (and difficulties) of reflexive action research have been outlined elsewhere.[18,19] A key function of taking a reflexive stance is to contribute to the critical examination of events, outcomes and conclusions.

Action research plays a part in the democratisation of research by involving those who may be affected by the research in making decisions.[9] It allows participants (for example, staff and service-users) who are being studied to influence the research agenda, and to participate in research activities that have previously been viewed as being in the domain of distant and powerful researchers.[9] However, this process is complex and fraught with difficulty. There was evidence from the included studies that more equal relationships between action researchers and participants and a pragmatic approach to contextual issues may serve to produce answers to and knowledge of difficult practical problems. For example, participation in the clarification of problems and the development of interventions is reported to generate enthusiastic and active involvement in implementation. On the other hand, the time-consuming nature of participation for all stakeholders, and the subsequent enhanced awareness of differences in perspectives between various groups, can lead to conflict and resistance to interventions.

The review has shown that a variety of issues related to NHS staff involvement and to the role of healthcare workers can be addressed through action research. The development of roles, particularly nursing roles, was the focus of a number of studies, for example, Rolfe and Phillips,[72] Jones[51] and Manley.[102] They analysed the development of

advanced nursing roles in which practitioners seek greater autonomy. Hart[139] offered a useful analysis of the increasing interest in action research by nurses. She identified several reasons, including the fact that action research is viewed as a method to reduce the 'theory–practice gap'; that is, it enables practitioners to undertake research and improve their practice. She aligned these reasons to the increasing focus on accountability, the desire for research-based practice and the related issue of increased professionalism. Hart[139] also suggested that the other reason for action research being favoured by nurses is that there is a dissatisfaction with the limitations of traditional methods of research, especially their lack of relevance to the complex issues in nursing practice. She referred to the qualities of action research (participation, social context and problem focus) that make it an attractive research approach. It is our opinion that the affinity of nurses for action research also lies in their history and philosophical persuasions. The history of nursing suggests that it is a practical and hands-on 'profession';[140] action research allows nurses to remain true to this component of nursing while, at the same time, allowing for investigation. The philosophical underpinnings of nursing that emphasise holism and caring have parallels with those aspects of action research that focus on the complexity of people's situations and the desire to enhance people's circumstances.[141] Nurses, in addition, work in teams so that participation in group decision making is common. The process of action research has many similarities with the nursing process and is thus familiar to nurses. The dissimilarities between action research and the medical model may explain why doctors have not taken up action research more widely.

Since the review found that nurses formed the largest group of healthcare professionals who had taken part in action research projects, it could be assumed, therefore, that, compared with other health professionals, nurses have developed expertise in action research. Meyer and Bateup,[142] for example, argued that nurse action researchers may have a great deal to teach other health professionals with regard to action research, and that their expertise formed a useful resource for those attempting to implement changes in practice.

Overall, the results of the review indicate that, with appropriate support, action researchers have a clear role to play in the Department of Health's R&D programme. It is considered that action research can contribute to innovation, improvements in healthcare, developing knowledge and understanding in practitioners, and involvement of users and NHS staff. It is concluded that action research is best conceived of being complementary to other research methodologies.

Chapter 9
Conclusions

The objectives of this review were to provide a definition and conceptual framework related to action research, to identify and analyse action research carried out in UK healthcare settings, and to provide guidance on the assessment of action research protocols and project reports. Here, the results of the various stages of the review process are brought together and direction is provided for the integration of the findings into the NHS R&D agenda.

The review was guided by specific aims. These included the presentation of a definition of action research, identification and examination of action research carried out within healthcare in the UK, and the development of guidance for the assessment of action research. A mixed methods approach to achieve these aims was used.

Action research is a complex process and an attempt has been made in our definition to encompass this complexity. Specific philosophical influences were outlined, and it has been confirmed that action research is interpreted and put into practice in a variety of ways. As a result, research- and practice-based outcomes varied extensively. It was found difficult to place an organising matrix upon the studies in order to show the scope of the action research projects. For instance, they could be organised according to the degree of participation, the type of research method employed, the change or intervention, the influence of reflective practices, or whether theoretical abstractions were produced. To give examples and show the range and outcomes of each category would be an almost impossible task. Readers have therefore been provided with data from each included study to allow them to examine this variety and variability.

Action research has been perceived as 'unscientific' by some researchers and funders and, therefore, as not being of value in the context of research and development. The discussion on the pivotal factors highlights the tensions that may arise in action research. However, the results of this review, and those of a Canadian review that examined the role of action research in health promotion,[25] indicate that, with adequate support, action research has the potential to address many of the current challenges within the modern NHS. Innovation, improvements in healthcare, developing knowledge and understanding in practitioners and other service providers, and involvement of users and NHS staff have been identified as key areas in which action research has a role to play in the NHS R&D programme. Action research appears to have the potential to assist practitioners, managers and policy makers in their efforts to provide high-quality healthcare. As such, it should be considered as being complementary to other research approaches and should, therefore, be integrated into the NHS R&D programme.

The results of the review show how action researchers attempt to be democratic and non-elitist by involving research participants. It has been noted that participation in research by those not normally involved is contrary to 'positivistic' notions – that researchers ought to be independent and distant from those they study, for fear of contaminating the research findings. It is also at odds with the existing conventional research relationships, which are in favour with those who are the researchers rather than the researched.

The review demonstrates that not only can action research produce evidence (or knowledge) that is similar to that produced through traditional quantitative or qualitative research methodologies (that is descriptive, theoretical or evaluative), but it also produces types of evidence and knowledge that can inform healthcare practices, services and organisations.

The findings indicate that action research can play a role in changing healthcare practice, because it crosses the 'boundaries' of research and action (or development). The reviewed studies went beyond an analysis of the *status quo* to directly consider questions of 'what might be' and 'what can be'. The ongoing links between reflection and research were shown to contribute to the usefulness of action research as a research process. As the included studies indicated, the link does not simply come from evaluating whether a change has occurred or if it is effective; the iterative process also allows for this evaluation to be fed back into the care setting and to be used to inform current and future practice. In this approach to research and development, the

production of research is not viewed as separate from developments in practice. This is in contrast to linear progression from research findings to the dissemination and use of findings traditionally symbolised in the evidence-based practice movement. Attempts are being made to identify the most effective means of ensuring the integration of research findings into practice. It appears sensible, therefore, to suggest that approaches such as action research, which view this process from a different perspective to conventional conceptualisations, should be facilitated.

Major concerns identified in the review relate to the funding and resources required in action research projects. The first is which funding agency is most appropriate, the second is the level of funding, and the third is the decision-making and funding management.

The included studies highlight that action research is a method of inquiry that can generate knowledge and understanding that, potentially, could have a direct, positive effect on the NHS. It is argued, therefore, that healthcare action research should be funded by the NHS R&D programme. However, the characteristics of action research, which include practice development, evaluation and education, also suggest that it would be appropriate to fund projects from other funding programmes as well, such as the 'New Deal' scheme.

In relation to the level of funding, the review found that the resourcing of action research projects was problematic. Limited resources (for example, equipment, staff, time) were allocated to the included projects. It is not possible to determine if this was a function of a failure on the part of the action researchers to seek resources or a denial of resources. Resources include not only equipment but, more crucially, action researchers' and participants' time. Included projects also indicated that there was consistent underestimation of the time required to complete cycles of the action research process.

As with other research approaches, the evidence indicates that action research projects require sufficient funding, extended over an appropriate period in order to successfully complete the project. Funding should include the replacement of staff who participate in the research process, so that they are not expected to continue their normal duties in addition to their research responsibilities. There are a number of ways in which this may be accomplished including, but not limited to, the funding of sabbaticals for staff who want to participate in the action research process. When local people or others are involved in the research, funding arrangements could include expenses for their participation, such as childcare and travel.

In relation to the funding process, there is a need for peer reviewers on funding-decision bodies who are familiar with the action research process. This, in part, relates back to the acceptance and understanding of the action research process that has been mentioned above. In addition, it relates to development of a cadre of experienced action researchers. The end result, however, requires that funding bodies include in their membership peer reviewers with the necessary background and experience to appropriately appraise action research proposals. The guidance questions provided as a part of this report will assist in this process.

Funding management is also a critical issue. The process of action research means that the normal structures in place for the monitoring of financial management of research projects are not suitable. The iterative process of the research means that research and action strategies may not be established until much later in the process. Hence, these projects will require interim financial reviews. Such a system has been integrated in the Sustainable Health Action Research Programme (or SHARP) project in Wales.[143] The evaluation of the effectiveness of this system should be used to inform research monitoring policies in other areas.

There was a discrepancy between the components of the definition established for this review and what was being reported as action research. The primary discrepancy is that researchers have been describing action research as research with healthcare users and/or health professionals but with no intent to proceed through the action research process of problem identification, planning, action, evaluation and so on.

Data extraction from studies in the review included the identification of aims of the research, reasons for choosing action research, issues addressed by the research, and roles, outcomes and impacts of action research. Action researchers were inconsistent in defining their aims and objectives. It is unclear if this was caused by the changing of aims and objectives during the action research process, a lack of research experience, or a lack of understanding of the need to clarify aims and objectives as each phase of a project evolved. There are grounds, therefore, for arguing that, for a variety of reasons,

researchers either think they are doing action research when they probably are not (as per the definition provided in this review), or are undertaking action research without sufficient preparation. This suggests that there is need for further education of healthcare professionals and researchers about action research. This educational activity could take place within current research methodology programmes and/or be conducted independently.

The diversity of activities involved in action research (varied research methods, group process management, project management) has implications for the range of skills required by action researchers. It is unlikely that a single action researcher will possess all the skills necessary to facilitate the participatory process, negotiate conflict, design and conduct qualitative and/or quantitative research, and assess the safety and appropriateness of interventions. A team with appropriate expertise, particularly change management skills, may therefore be needed to provide input during various aspects of the action research process.

A significant number of action research projects were undertaken by researchers completing higher degrees. Given the complexity of conducting action research, there is a clear need to provide appropriate supervision for these new action researchers.

The findings also indicate that, in the studies included in this review, users of health services were not as intimately involved with action research projects as might be expected. The review identified several potential reasons for this, including, lack of resources and 'know-how,' and the assumption that nurses were the disadvantaged group in the action research process. For the development of relevant and appropriate healthcare, the contribution of users is necessary. Further action research needs to explore the role of users in action research within the NHS.

Given that some researchers, managers and funders misunderstand the key components of action research, one of the objectives of this review has been to provide a tool to assist in the systematic appraisal of action research protocols and projects. The eight pivotal factors identified in the review were integrated with the definition to formulate guidance to assess the quality of action research projects and reports. This guidance, which is made up of 20 questions and accompanying explanatory notes, will now require field-testing, and modification as appropriate.

Implications for policy

The implications of this review indicate that:

- action research be considered as complementary to other research approaches within the NHS
- action research has a potential role within the NHS R&D programme
- a mechanism for evaluation of the quality of action research is required.

Implications for practice

A movement to the acceptance of the value of action research within the NHS could be assisted through:

- the inclusion of action researchers on appropriate R&D bodies
- the provision of appropriate information on action research to those involved in policy development and funding decisions within the NHS
- the dissemination of results of action research projects
- the adjustment of funding and reporting mechanisms to allow for the action research process
- the development of collaborative educational/healthcare institution action research education programmes
- the field-testing of the guidance for assessing action research.

To shift current views of action research and allow for its acceptance and integration into current health research programmes requires a strategy that leads to an understanding of participatory approaches to research; a recognition of the value of practical as well as propositional knowledge as research outcomes; and the inclusion of other approaches to research and development. The beginning of this process could include the representation of action researchers on relevant national and regional committees, the provision of appropriate information to those involved in policy development and funding decisions in R&D programmes, and the wider dissemination of the results of action research projects.

The NHS R&D programme could facilitate the establishment of collaborative partnerships between educational and health institutions. These partnerships could provide educational programmes that increase the cadre of knowledgeable and experienced action researchers. It would also set the stage for future collaborative research projects. The findings of this review also indicate that these pro-

grammes should include mechanisms to promote the development of skills in the good management and facilitation of action research projects.

The provision of a method to evaluate action research proposals and projects is essential to the future development of the action research process. The guidance provided as a part of this review is seen as a starting point for the development of this process. This guidance requires field-testing in a variety of settings that might include:

- action research educational programmes
- funding bodies that are in position to review action research proposals
- local research ethics committees
- critical appraisal skills programmes
- short courses and graduate programmes that focus on evidence-based healthcare
- distance learning or open-learning packages.

Implications for future action research

Funding of action research would be appropriate (but not limited to) the following areas:

- innovation, for example, in the development and evaluation of new services
- improvements in healthcare, for example, monitoring of the effectiveness of untested policies or interventions
- development of knowledge and understanding in practitioners and other service providers, for example, promotion of informed decision making
- involvement of users and NHS staff, for example, investigation and improvement of situations where there is poor uptake of preventative services.

Dissemination of the results of this review

The results of this review should be widely disseminated. Targets should include those responsible for developing healthcare research methodologies, healthcare research funding agencies, national and local research ethics committees, and anyone interested in commissioning or conducting action research. Findings would be of interest to people who work in the fields of:

- medicine and professions allied to medicine
- health education and health promotion
- medical sociology
- anthropology and health
- health psychology
- health research.

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References

1. Greenwood J. Nursing research: a position paper. *J Adv Nurs* 1984;**9**:77–82.
2. Kemmis S, McTaggert R. The action research planner. Victoria: Deakin University Press; 1988.
3. Reason P, editor. Participation in human inquiry. London: Sage; 1994.
4. Titchen A, Binnie A. Action research: a strategy for theory generation and testing. *Int J Nurs Studies* 1994;**31**:1–12.
5. McNiff J, Lomax PJ, Whitehead J. You and your action research project. London: Routledge; 1996.
6. Stringer E. Action research: a handbook for practitioners. London: Sage; 1996.
7. Fals-Borda O, Rahman M, editors. Action and knowledge: breaking the monopoly with participatory action-research. London: Intermediate Technology Publications; 1991.
8. Whyte F, editor. Participatory action research. Newbury Park: Sage; 1991.
9. Heron J. Co-operative inquiry: research into the human condition. London: Sage; 1996.
10. Hart E, Bond M. Action research for health and social care: a guide to practice. Buckingham: Open University Press; 1995.
11. Greenwood D, Levin M. Introduction to action research: social research for change. London: Sage; 1999.
12. Adelman C. Kurt Lewin and the origins of action research. *Educ Action Res* 1993;**1**:7–24.
13. Carr W, Kemmis S. Becoming critical: education, knowledge and action research. London: Fabian; 1986.
14. Argysis C, Putnam R, Smith S. Action science. San Francisco: Jossey-Bass; 1985.
15. Gunz J, Jacob L. Moreno and the origins of action research. *Educ Action Res* 1996;**4**:145–8.
16. Noffke S. Action research: towards the next generation. *Educ Action Res* 1994;**2**:9–22.
17. Altrichter H, Gsttetner P. Action research: a closed chapter in the history of German social science? *Educ Action Res* 1993;**1**:329–60.
18. Susman G, Evered R. An assessment of the scientific merits of action research. *Admin Sci Q* 1978;**23**:582–603.
19. Winter R. Action research and the nature of social inquiry: professional innovation and educational work. Aldershot: Avebury; 1987.
20. Winter R. Learning from experience: principles and practice in action research. London: Falmer Press; 1989.
21. Meyer J. Stages in the process: a personal account. *Nurse Res* 1995;**2**:24–37.
22. Habermas J. Towards a theory of communicative action: vol 1. Boston: Beacon; 1984.
23. Giddens A. Positivism and its critics. In: Bottomore T, Nisbet R, editors. A history of sociological analysis. London: Heineman; 1979.
24. Gadamer H. Truth and method. London: Sheed and Ward; 1975.
25. Green L, George M, Danial M, Frankish C, Herbert C, Bowie W, *et al.* Study of participatory research in health promotion: review and recommendations for the development of participatory research in health promotion in Canada. Vancouver: University of British Columbia, Institute of Health Promotion Research; 1995.
26. Popay J, Williams G. Qualitative research and evidence-based health. *J R Soc Med* 1998; **91** Suppl 35:32–7.
27. NHS Centre for Reviews and Dissemination. Undertaking systematic reviews on effectiveness. CRD Report no 4. York: University of York, NHS Centre for Reviews and Dissemination; 1996.
28. Noblit G, Hare RD. Meta-ethnography: synthesizing qualitative studies. London: Sage; 1988.
29. Moher D, Chalmers T, Cook D, Eastwood S, Olkin KI, Drummond R, *et al.* Improving the quality of reports of meta-analyses of randomized controlled trials: the QUORUM statement. London: Lancet; 1999. http://www.thelancet.com/newlancet/eprint/2/index.html
30. Standards of Reporting Trials Group. A proposal for structured reporting of randomized controlled trials. *JAMA* 1994;**272**:1926–31.
31. Green L, George A, Daniel M, Frankish C, Herbert C, Bowie W, *et al.* Guidelines and categories for classifying participatory research projects in health promotion. Vancouver: University of British Columbia, Institute of Health Promotion Research; 2000. www.ihpr.ubc.ca/guidelines.html

32. Murphy E, Dingwall R, Greatbatch D, Parker S, Watson P. Qualitative research methods in health technology assessment: a review of the literature. *Health Technol Assess* 1998;**2**(16).

33. Sarantakos S. Social research. Basingstoke: Macmillan; 1993.

34. Kruger R. Focus groups. 2nd ed. London: Sage; 1994.

35. May K. The preparation and analysis of qualitative data. In: Roe B, Webb C, editors. Research and development in clinical nursing. London: Whurr; 1998. p. 59–83.

36. Holter IM, Schwartz-Barcott D. Action research: what is it? How has it been used and how can it be used in nursing? *J Adv Nurs* 1993;**18**:298–304.

37. Hart E, Bond M. Making sense of action research through the use of a typology. *J Adv Nurs* 1996;**23**:152–9.

38. Brown S, Mckintyre B. An action research approach to innovation in centralised educational systems. *Eur J Sci Educ* 1981;**3**:243–58.

39. Nolan M, Grant G. Action research and quality of care: a mechanism for agreeing basic values as a precursor to change. *J Adv Nurs* 1993;**18**:305–11.

40. Lewin K. Frontiers in group dynamics: social planning and action research. *Hum Relations* 1947;**1**:143–53.

41. De Koning K, Martin M, editors. Participatory research in health. London: Zen Books; 1996.

42. Cornwall A. Towards participatory practice: participatory rural appraisal (PRA) and the participatory process. In: de Koning K, Martin M, editors. Participatory research in health: issues and experiences. London: Zen Books; 1996. p. 94–107.

43. Lee B. An action research study of the training and development needs of registered nurses becoming clinical supervisors [MSc thesis]. Bristol: University of Bristol; 1996.

44. Burrows D, Baillie L. Bridging the theory practice gap; developing 'knowledgeable doers' for nursing practice. Luton: University of Luton; 1998.

45. Huby G. Interpreting silence, documenting experience: an anthropological approach to the study of health service users' experience with HIV/AIDS care in Lothian, Scotland. *Soc Sci Med* 1997;**44**:1149–60.

46. McKenna HP, Parahoo KA, Boore JP. The evaluation of a nursing model for long-stay psychiatric patient care: Part 2. Presentation and discussion of findings. *Int J Nurs Studies* 1995;**32**:95–113.

47. McKenna HP, Parahoo KA, Boore JP. The evaluation of a nursing model for long-stay psychiatric patient care: Part 1. Literature review and methodology. *Int J Nurs Studies* 1995;**32**:79–94.

48. Gibson F, Horsford J, Nelson W. Oral care: ritualistic practice reconsidered within a framework of action research. *J Cancer Nurs* 1997;**1**:183–90.

49. Waterman H, Webb C, Williams A. Changing nursing and nursing change: a dialectical analysis of an action research project. *Educ Action Res* 1995;**3**:55–70.

50. Hanlon P, Beck S, Robertson G, Henderson M, McQuillan R, Capewell S, *et al.* Coping with the inexorable rise in medical admissions: evaluating a radical reorganisation of acute medical care in a Scottish district general hospital. *Health Bull* 1997;**55**:176–84.

51. Jones S. An action research investigation into the feasibility of experienced registered sick children's nurses (RSCNs) becoming children's emergency nurse practitioners (ENPs). *J Clin Nurs* 1996;**5**:13–21.

52. McMahon T. Is reflective practice synonymous with action research. *Educ Action Res* 1999;**7**:163–70.

53. Winter R. Managers, spectators and citizens: where does theory come from in action research? *Educ Action Res* 1998;**3**:361–76.

54. Meyer JE. New paradigm research in practice: the trials and tribulations of action research. *J Adv Nurs* 1993;**18**:1066–72.

55. Clarke C. Developing the pervasiveness of practice developments on professional learning and on organisations as learning environments. *Clin Effect Nurs* 1998;**2**:30–6.

56. Schon D. The reflective practitioner. London: Temple Smith; 1983.

57. Winter R. Finding a voice – thinking with others: a conception of action research. *Educ Action Res* 1998;**6**:53–68.

58. McTaggert R, Henry H, Johnson E. Traces of participatory action research: reciprocity among educators. *Educ Action Res* 1997;**5**:123–40.

59. Bellman LM. Changing nursing practice through reflection on the Roper, Logan and Tierney model: the enhancement approach to action research. *J Adv Nurs* 1996;**24**:129–38.

60. Nicoll L, Butler M. The study of biology as a cause of anxiety in student nurses undertaking the common foundation programme. *J Adv Nurs* 1996;**24**:615–24.

61. Habermas J. Towards a rational society. London: Heinemann; 1971.

62. Habermas J. Theory of communicative action: vol 2. Cambridge: Polity Press; 1987.

63. Kemmis S, McTaggert R. Participatory action research. In: Denzin N, Lincoln Y, editors. Handbook of qualitative research. 2nd ed. London: Sage; 2000.

64. Reason P, Bradbury H. Handbook of action research: participative inquiry and practice. London: Sage; 2001.

65. Somekh B. The contribution of action research to development in social endeavours: a position paper on action research methodology. *Br Educ Res J* 1995;**21**:339–55.

66. Rapaport R, Rapaport R. Dual career families re-examined. London: Martin Robertson; 1976.

67. Wilkinson E, Elander E, Woolaway M. Exploring the use of action research to stimulate and evaluate workplace health promotion. *Health Ed J* 1997;**56**:188–98.

68. Power R, Dale A, Jones S. Towards a process evaluation model for community-based initiatives aimed at preventing the spread of HIV amongst injecting drug users. *AIDS Care* 1991;**3**:123–35.

69. Galvin K, Andrewes C, Jackson D, Cheesman S, Fudge T, Ferris R, *et al.* Implementing and investigating change within the primary healthcare nursing team: an action research study. Bournemouth: Bournemouth University/ Dorset Health Authority; 1997.

70. Phillips N, Myhill D, Thurtle V. Laurel Centre interim report. Ipswich: Allington NHS Trust; 1998.

71. Allan E. A health clinic for people with learning disabilities. *Nurs Standard* 1997;**11**(30):34–7.

72. Rolfe G, Phillips L. The development and evaluation of the role of an advanced nurse practitioner in dementia – an action research project. *Int J Nurs Studies* 1997;**34**:119–27.

73. Batteson R. A strategy to improve nurse/ occupational therapist communication for managing patients with splints. *Br J Occup Ther* 1997;**60**:451–5.

74. Crowley J. A clash of cultures; improving the quality of care through an action research process [MSc thesis]. London: Institute of Advanced Education, Royal College of Nursing; 1996.

75. Whyborne N. An investigation into PCA discontinuation and subsequent nursing management of pain. High Wycombe: South Buckinghamshire NHS Trust; 1996.

76. Webb C, Addison C, Holman H, Saklaki B, Wagner A. Self-medication for elderly patients. *Nurs Times* 1990;**86**(16):46–9.

77. Ayer S, Knight S, Joyce L, Nightingale V. Practice-led education and development project: developing styles in clinical supervision. *Nurse Educ Today* 1997;**17**:347–58.

78. Clifford C, Murray S. Getting research into practice. Birmingham: NHSE R&D Directorate (West Midlands); 1998.

79. Tebby B. Action research: an approach to practical problem solving in the development of a midwifery model [BSc Hons thesis]. Oxford: RCN Institute; 1997.

80. Potter C, Morgan P, Thompson A. Continuous quality improvement in an acute hospital: a report of an action research project in three hospital departments. *Int J Health Care Qual Assur* 1994;**7**:5–29.

81. Snadden D, Thomas ML, Griffin EM, Hudson H. Portfolio-based learning and general practice vocational training. *Med Educ* 1996;**30**:148–52.

82. Kerr M, Macdonald T. Project 2000 student nurses' creative approach to peer education. *Nurse Educ Today* 1997;**17**:247–54.

83. Jasper MA. A shortened common foundation programme for graduates – the students' experience of student-centred learning. *Nurse Educ Today* 1994;**14**:238–44.

84. Gibson K. Developing services for elderly people. *Nurs Standard* 1992;**6**(31):29–32.

85. Sajiwandani J. Evaluating the English National Board Course 941. Nursing elderly people: an enhancement collaborative action research. London: English National Board of Nursing, Midwifery and Health Visiting; [n.d].

86. Howard D. Student profiles through action research. *Senior Nurse* 1991;**11**(3):17–20.

87. Ghazi F. Auditing student practice placements. *Nurs Standard* 1994;**8**(40):36–9.

88. Wright S. Developing health visiting practice using action research. *Community Practitioner* 1998;**71**:337–9.

89. Newton CA. Action research: application in practice. *Nurse Res* 1995;**2**(3):60–71.

90. Burrows D. An action research study on the nursing management of acute pain. High Wycombe: South Buckinghamshire NHS Trust; 1996.

91. Rolfe G, Jackson N. An action research project to develop the role of the generic health care support worker. In: Proceedings of 3rd Biannual International EuroQuon Conference on Quality and Nursing Practice; September 1997; Oslo, Norway. p. 209–16.

92. Howie J, Heaney DJ, Maxwell M. Evaluation of the Scottish shadow fund-holding project: first results. *Health Bull* 1993;**51**:94–105.

93. Cayne JV. Portfolios: a developmental influence? *J Adv Nurs* 1995;**21**:395–405.

94. Fraser DM. Pre-registration midwifery programmes: a case study evaluation of the non-midwifery placements. *Midwifery* 1996;**12**:16–22.

95. Mason T. Seclusion as a cultural practice in a special hospital. *Educ Action Res* 1993;**1**:411–23.

96. Bond M, Walton P. Knowing mothers: from practitioner research to self-help and organisational change. *Educ Action Res* 1998;**6**:111–29.

97. Collin AJ, Edmonstone JD, Sturt JR. Commissioning DGHs: the state of the art. *Hosp Health Services Rev* 1981;**77**:268–71.

98. Henderson C. 'Changing childbirth' and the West Midlands Region 1995–1996. London: Royal College of Midwives; 1997.

99. McElroy A, Corben V, McLeish K. Developing care plan documentation: an action research project. *J Nurs Manage* 1995;**3**:193–9.

100. East L, Robinson J. Change in process: bringing about change in health care through action research. *J Clin Nurs* 1994;**3**:57–61.

101. Owen S. Identifying a role for the nurse teacher in the clinical area. *J Adv Nurs* 1993;**18**:816–25.

102. Manley K. A conceptual framework for advanced practice: an action research project operationalizing an advanced practitioner/consultant nurse role. *J Clin Nurs* 1997;**6**:179–90.

103. Kinmonth A, Spiegal N, Woodcock A. Developing a training programme in patient-centred consulting for evaluation in a randomised controlled trial; diabetes care from diagnosis in British primary care. *Patient Educ Counselling* 1996;**29**:75–86.

104. Steward B. Researching fieldwork practice in occupational therapy. *Educ Action Res* 1994; **2**:259–65.

105. Smith G. Resistance to change in geriatric care. *Int J Nurs Studies* 1986;**23**:61–70.

106. Pearcey P, Draper P. Using the diffusion of innovation model to influence practice: a case study. *J Adv Nurs* 1996;**23**:714–21.

107. Marrow CE, MacCauley DM, Crumbie A. Promoting reflective practice through structured clinical supervision. *J Nurs Manage* 1997;**5**:77–82.

108. Stark S. A nurse tutor's experience of personal and professional growth through action research. *J Adv Nurs* 1994;**19**:579–84.

109. Titchen A. Changing nursing practice through action research. Oxford: National Institute for Nursing, Centre for Practice Development and Research; 1993.

110. Armitage P, Champney SJ, Andrews K. Primary nursing and the role of the nurse preceptor in changing long-term mental health care: an evaluation. *J Adv Nurs* 1991;**16**:413–22.

111. Johns C, Kingston S. Implementing a philosophy of care on a children's ward using action research. *Nurs Pract* 1990;**4**:2–9.

112. Meyer J. Lay participation in care: a challenge for multidisciplinary teamwork. *J Interprof Care* 1993;**7**:57–66.

113. Meyer U, Reimer K, Bruce B. Building teacher–researcher collaboration: dilemmas and strategies. *Educ Action Res* 1994;**2**:211–22.

114. Kemmis S. Exploring the relevance of critical theory for action research: emancipatory action research in the footsteps of Jurgen Habermas. In: Reason P, Bradbury H, editors. Handbook of action research: participative inquiry and practice. London: Sage; 2001. p. 91–102.

115. Wolcott S. Ethnography: a way of seeing. London: Sage; 1999.

116. Hammersley M, Atkinson P. Ethnography: principles and practice. London: Routledge; 1995.

117. Burgess R. In the field. London: Allen and Unwin; 1999.

118. Elliott J. What have we learned from action research in school-based evaluation? *Educ Action Res* 1993;**1**:175–86.

119. Stanley L. Feminist praxis and the academic mode of production. In: Stanley L, editor. Feminist praxis: research, theory and epistemology in feminist sociology. London: Routledge, Kegan Paul; 1990. p. 3–19.

120. Denzin N, Lincoln Y. Handbook of qualitative research. London: Sage; 1994.

121. Zeni J. A guide to ethical issues and action research. *Educ Action Res* 1998;**6**:9–20.

122. Elliott J. Action research for social change. Milton Keynes: Open University Press; 1991.

123. Kearney J. The realities of collaboration: an experiential paper. Paper presented at CARN Conference; London; 1998.

124. Winter R. Action research, practice and theory. *Educ Action Res* 1993;**1**:315–16.

125. Clark J, Dudley P, Edwards A. Ways of presenting and critiquing action research reports. *Educ Action Res* 1993;**1**:490–2.

126. Kemmis S, Wilkinson M. Participatory action research and the study of practice. In: Atweh B, Kemmis S, Weeks P, editors. Action research in practice: partnerships for social justice in education. London: Routledge; 1998. p. 21–36.

127. Popay J, Rogers A, Williams G. Rationale and standards for systematic review of qualitative literature in health services. *Qual Health Res* 1998;**8**:341–51.

128. Moher D, Jadad A, Nichol G, Penman M, Tugwell P, Walsh S. Assessing the quality of randomized controlled trials: an annotated bibliography of scales and checklists. *Control Clin Trials* 1995;**16**:62–75.

129. Sutton AJ, Abrams KR, Jones DR, Sheldon TA, Song F. Systematic reviews of trials and other studies. *Health Technol Assess* 1998;**2**(19).

130. Department of Health. Organisation of research and development. London: DoH; 2000. http://www/dpj/gpv/il/research/rd/pvervoew/organisation.htm

131. Manley K. Practice development: a growing and significant movement. *Nurs Crit Care* 1997;**2**:5.

132. NHS Centre for Reviews and Dissemination. Getting evidence into practice. *Effect Health Care Bull* 1999;**5**(1).

133. Department of Health. The NHS plan: a plan for investment: a plan for reform. Cm 4818-1. London: Stationery Office; 2000.

134. Rogers E, Shoemaker FF. Communication of innovations: a cross-cultural approach. London: Collier-Macmillan; 1971.

135. Rogers E. Diffusion of innovations. London: Collier-Macmillan; 1962.

136. Muir Gray J. Evidence-based healthcare. Edinburgh: Churchill Livingstone; 1997.

137. Department of Health. A first class service quality in the new NHS. Wetherby: DoH; 1998.

138. Harrison S. The politics of evidence-based medicine in the United Kingdom. *Policy and Politics* 1998; **26**:15–29.

139. Hart E. Action research as a professionalizing strategy: issues and dilemmas. *J Adv Nurs* 1996;**23**:454–61.

140. Nightingale F. Notes on nursing. London: Harrison & Sons; 1865.

141. Robinson A. Transformative 'cultural shifts' in nursing: participatory action research and the 'project of possibility'. *Nurs Inquiry* 1995;**2**(2):65–74.

142. Meyer J, Bateup L. Action research in health care practice: nature, present and future possibilities. *Nurs Times Res* 1999;**2**:175–84.

143. National Assembly for Wales. Sustainable health action research programme (SHARP). http://www.wales.org.uk/polinifo/health/promotion.sharp/sharp1_e.htm ed; 2000.

144. O'Sullivan S. Changing nursing practice for more effective handover: an action research study [abstract: MSc thesis]. London: Institute of Advanced Education, Royal College of Nursing; 1996.

Appendix 1

Electronic search strategy and results

Phase 1

Phase 1 was designed to identify action research papers labelled as 'action research'.

Search terms	Comments
'action near 1 research' 'action near 1 research in ti' 'action near 1 research in ab' 'action near 1 research in de'	Free text search In title In abstract In delimiter NB: 'action research' does not exist as in MEDLINE or the National Research Register database as a subject heading
Health	Used during Sociofile search to limit search to health (Country of study's origin determined by inspection of author's affiliation address)

Phase 2

Phase 2 was designed to identify action research papers not labelled as 'action research' but by another term.

Search terms	
#1 CLINICAL DECISION MAKING	#12 PARTICIPATORY near1 RURAL near1 APPRAISAL
#2 CLINICAL near1 INQUIRY	#13 PROCESS near1 EVALUATION
#3 COLLABORATIVE near1 INQUIRY	#14 PROCESS near1 CONSULTATION
#4 DESCRIPTIVE near1 RESEARCH	#15 RAPID near1 RURAL near1 APPRAISAL
#5 GROUNDED near1 THEORY	#16 TRANSFORMATIVE near1 RESEARCH
#6 EVALUATION near1 RESEARCH	#17 USER near1 INVOLVEMENT
#7 FEMINIST RESEARCH	#18 COOPERATIVE near1 INQUIRY
#8 FORMATIVE near1 EVALUATION	#19 PARTICIPATORY near1 APPRAISAL
#9 ILLUMINATIVE near1 RESEARCH	#20 PARTICIPATORY near1 EVALUATION
#10 MANAGEMENT near1 RESEARCH	#21 CHANGE near1 MANAGEMENT
#11 PARTICIPATORY near1 RESEARCH	
#1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12 or #13 or #14 or #15 or #16 or #17 or #18 or #19 #20 or #21	

Summary of identification, retrieval and inclusion of action research studies

Source	Source of reference	References identified/ requested	References retrieved	Papers excluded (round 1)	Papers remaining	Papers excluded (round 2)	Studies for data extraction	Studies excluded (round 3)	Studies included for analysis
Electronic	Electronic databases and Phase 1 search strategy	259	172	61	111	63	48	14	34
Call	Blind request to action researchers (via RCN)	~200 researchers contacted	9	1	8	3	5	0	5
Hand search	Handsearching journals	109	13	1	12	6	4	0	4
NHS trust	Mail-out to NHS trusts	444 NHS trusts contacted: 104 responses; 40 positive, 64 negative	58	34	24	18	6	1	5
Research-ers	Action researchers identified via conference proceedings	104 researchers contacted	33	5	28	16	12	1	11
Total			**285**	**102**	**183**	**106**	**75**	**16**	**59**

Total included: **59** (including action research studies)

Total excluded: **226** (excluded studies, 81; reference only papers, 65; methodology papers, 64)

Total number of references retrieved: 285

Appendix 2

Consultative process

Sample of communication sent to NHS trusts

27 May 1998

Dear

Re: NHS R&D HTA Programme project entitled 'Action research: including standards for judging its appropriateness'

Action research has been identified as a priority for assessment by the NHS R&D HTA Programme. A systematic review is now being undertaken to assess the extent, nature and perceived impact of action research in UK healthcare contexts.

Unfortunately a high proportion of action research studies do not appear in the published literature. In order to identify these studies and increase the comprehensiveness of the systematic review funding agencies, key action researchers, all regional health authorities and NHS trusts are being contacted as part of the systematic review's consultative process.

We would be most grateful if you could complete and return the enclosed form and, send all available requested information to the review by the end of July 1998.

The final report will include a directory listing action research studies undertaken in UK healthcare settings. Please state if you do not want any of the information provided by you to be included.

We look forward to hearing from you.

Yours sincerely

Dominique Tillen
Systematic Review Coordinator
School of Nursing, Health Visiting and Midwifery
Coupland III Building, Oxford Road, University of Manchester
Manchester M13 9PL
Tel: 0161 275 7567; Fax 0161 275 7566; Email: dtillen@fs1.nu.man.ac.uk

NHS R&D Health Technology Assessment Programme

Action research: including standards for judging its appropriateness

Systematic review: consultative process

Source of information:	Funding body	Key action researcher	Regional Health Authority
	Heathcare trust	Other (*specify*)	
Name and Address:			

Please circle the appropriate response above. If available, please retrieve the information requested.

	Information requested about action research studies undertaken/ funded by you or your organisation for the NHS	**Response** (circle as appropriate)
1	A list of action research studies (if possible indicate source of funding). Please include **completed, uncompleted and current studies**	Information available Information not available
2	Copies of reports, papers or protocols of action research studies. Please include **completed, uncompleted and current studies**	Information available Information not available
3	Criteria used by you/your organisation for judging action research proposals and/or evaluating action research reports	Information available Information not available
4	Names and addresses of any other centres, funding bodies or researchers involved with action research that you are aware of	Information available Information not available

Please return this form and all available information to:

Dominique Tillen, Systematic Review Coordinator, School of Nursing, Health Visiting and Midwifery, Coupland III Building, Oxford Road, University of Manchester, Manchester M13 9PL
Tel: 0161 275 7567; Fax: 0161 275 7566; Email: dtillen@fs1.nu.man.ac.uk

Sample letter sent to researchers identified from conference proceedings

30 July 1998

Dear [first name]

Re: R&D HTA Programme. Action research: including standards for judging its appropriateness

Action research has been identified as a priority for assessment by the R&D HTA Programme. A critical review is now being undertaken to assess the extent, nature and perceived impact of action research in UK healthcare contexts.

In order to identify action research studies and to gather information about distinct criteria used for judging action research proposals and reports, funding agencies, key researchers and regional health authorities are being contacted as part of the systematic review's process.

You have been identified as a key action researcher from your presentation entitled:

[Project title] .....

at the **RCN Annual Action Research Conference in association with CARN, London, June 1997**.

We would be very grateful if you would submit any reports or papers (together with details of the source of funding) produced from your action research project as presented at this conference to the systematic review.

The final report will include a directory listing action research projects and funding organisations. We are hoping to include your details. Please state if any of the information that you provide should not be included.

We look forward to hearing from you.

Yours sincerely

Dominique Tillen
Systematic Review Coordinator, School of Nursing, Health Visiting and Midwifery
Coupland III Building, Oxford Road, University of Manchester, Manchester M13 9PL
Tel: 0161 275 7567; Fax 0161 275 7566; Email: dtillen@fs1.nu.man.ac.uk

Appendix 3

Data extraction sheet

Refman No/s

Action research data extraction sheet

Question		Variable name	Response
1.	**ID number** (collective not RM id)		**(see file .txt)**
Project profile			
2.	**Author's name**		
3.	**Project title**		
4.	**Source of title**	**titsour**	1 = actual title 2 = other title (e.g. publication title if actual title not provided)
5.	**Project type**	**protype**	1 = PhD; 2 = MSc/MA; 3 = Diploma/UG thesis; 4 = not for academic qual.; 5 = Pilot project; 9 = no information
6.	**Project date**	**prodate**	
7.	**Project status**	**status**	1 = completed; 2 = ongoing; 3 = stopped (not completed); 9 = no information
8.	**Project duration**	**duration**	(months); 0 = no information
9.	**Project reviewed?**	**reviewed**	1 = reviewed; 2 = grey literature; 9 = no information
10.	**Distribution**	**distrib**	1 = all participants; 2 = selected distribution; 3 = general public; 9 = no information
11.	**Project received funding?**	**funding**	1 = yes; 2 = no; 9 = no information
12.	**Name of funding organisation:**	**namefund**	
13.	**Total amount of funding**	**amfund**	
14.	**Steering committee established?**	**steer**	1 = yes; 2 = no; 9 = no information
15.	**Membership**	**membship**	
Researcher details			
16.	**Researcher details provided?**	**research**	1 = yes; 2 = no; 3 = inferred
17.	**Number of investigators**	**resnumb**	

18.	**Professional affiliation** (principal investigator)	**prof**	1 = academic only 3 = medical 5 = manager 7 = social/community work 9 = no information	2 = nursing 4 = other healthcare worker 6 = student	
19.	**Academic qualification**	**academic**	1 = doctoral	2 = masters 4 = none	3 = graduate/diploma 9 = no information
20.	**Institution address**	**address**			
21.	**Researcher employed**	**employ**	1 = inside place of research 2 = outside place of research 9 = no information		

Participant details

22.	**Project participants described?**	**particip**	1 = yes	2 = no	3 = inferred

23.

Participant		**1 = active 3 = passive 2 = no participation**	**Type** (see code)	
Nurses – hospital	nhosp			nhosp 1
Nurses – hospital/community	nhospcom			nhoscom 1
Nurse – community/hospital	ncomhosp			ncomhos 1
Medical – hospital	medhosp			medhosp 1
Medical – hospital/community	medhoscom			mhoscom 1
Managers	manager			manager 1
Paramedical	paramed			paramed 1
Ancillary workers	ancill			ancill 1
Student	student			student 1
Educators	educato			educato 1
Voluntary workers	vol			vol 1
Service users	servuse			servuse 1

24.	**Total number of *direct* participants**	**partnum**	(0 = no information)
25.	**Total number of participant types**	**parttnum**	(0 = no information)

Project location

26.	**Project location/s described?**	**location**	1 = yes	2 = no	3 = inferred
27.	**Project locations**	**locate1**	1 = community 3 = hospital/community 5 = trust 9 = no information	2 = community/hospital 4 = hospital 6 = other	
	Description of location	**locate2**	–1 = entered into .txt file	9 = no information	
28.	**Number of locations**	**locnum**	(0 = no information)		
29.	**Number of location types**	**loctynum**	(0 = no information)		

Reason for choosing action research

30.	**Reason for choosing action research**	**reason**	–1 = entered into .txt file		9 = no information
31.	**Source of rationale**	**guru**	*Add code*	8 = none	9 = no information

Aims and objectives

32.	***Explicit* aims described?**	**explicit**	–1 = entered into .txt file		9 = no information
33.	***Implicit* aims described?**	**implicit**	–1 = entered into .txt file		9 = no information
34.	**Objectives described?**	**objectiv**	–1 = entered into .txt file		9 = no information

The issue

35.	**What is the 'issue'?**	**problem**	–1 = entered into .txt file		9 = no information
36.	**Type of 'issue'?**	**robfoc**	*see/add code*		

37.

Typology question	**Category in typology**	
Where did 'problem' emerge from?	**typemerg**	
Who defined the 'problem'?	**typdefin**	
Who defined success?	**typsuces**	

Change intervention

38.	**Change intervention/s**	**change**	–1 = entered into .txt file		9 = no information
39.	**Target group**	**target**	1 = nursing	2 = medical	3 = paramedical
			4 = voluntary	5 = multidisciplinary	
			6 = service managers	7 = service users	8 = other
			9 = no information		
40.	**Healthcare speciality**	**special**	1 = palliative care	2 = disabled	3 = primary care
			4 = ophthalmic	5 = A&E	6 = elderly
			7 = medical/surgical	8 = intensive care	9 = maternity
			10 = rehabilitation	11 = psychiatric	12 = education

41.

Typology question	**Category in typology**	
Origin of the change intervention?	**typorg**	
Change intervention for whom?	**typaim**	

Educational input

42.	**What educational input?**	**educate**	–1 = entered into .txt file		9 = no information

43.

Typology question	**Category in typology**	
Kind of educative base	**typedb**	
Aim of educational input	**typedin**	
Focus of educative base	**typedfoc**	

Projects process (cycles, context, politics)

44. Describe project's process? **process** –1 = entered into .txt file 9 = no information

45. Number of cycles identified **cycle** 0 = no information
(planning–action–evaluation)

46.

Typology question	**Category in typology**	
Which cyclic components dominant?	**typdom**	
What does cycle processes identify?	**typpro**	
Dimensions of the cyclic process	**typdimen**	

Participation

47. Participation: phases in action research process **degree** –1 = entered into .txt file 9 = no information

48. Involvement of researchers, managers and *active* participants in each phase of the research cycle

Enter 1 = researchers 2 = managers 3 = participants 4 = researchers, managers
5 = researchers, participants 6 = researchers, managers, participants 9 = no information

Issue identification/definition	**ingenes**		Analysis	**inanaly**	
Reflection on issue/planning	**inreflec**		Knowledge production	**inknow**	
Implementation	**inaction**		Validation	**invalid**	
Data collection	**indatcol**		Dissemination	**indissem**	
Evaluation	**inevalu**				

49. Project mode of participation **mode** 1 = co-option 2 = complicance 3 = consultation
4 = cooperation 5 = co-learning 6 = collective action

50.

Typology question	**Category in typology**	
Groups participants involved in?	**typgrp**	
Participants membership of group	**typmemb**	
Researcher–participant relationship?	**typrelat**	
The origin of 'research expertise'	**typexp**	
Researcher–participant roles	**typrole**	
Improvement and involvement	**typimin**	

Project methods

51. Sampling strategy/rationale provided sample –1 = entered into .txt file 9 = no information

52. Data collection methods described? **collect** 1 = yes 2 = no
Enter 1 = yes; 2 = no
Questionnaire Focus group Interview Workshop Reflective diary Group reflection

Observation Survey Enter other .....

Audit Audit describe **auditdes** –1 = entered into .txt file 9 = no information

53. Data analysis described? **analysis** –1 = entered into .txt file 9 = no information

54. Method of testing validity of findings **valid** –1 = entered into .txt file 9 = no information

55. Generalisabiliy **gen** –1 = entered into .txt file 9 = no information

Projects outcomes

56. Outcomes described? **outcome** –1 = entered into .txt file 9 = no information
(To aid coding later, enter [A] actual, [P] perceived, [UE] unexpected, in .txt file)

Project impact

57. Impacts described? **impact** –1 = entered into .txt file 9 = no information
(To aid coding later, enter [A] actual, [P] perceived, [UE] unexpected, in .txt file)

Strengths and limitations of the project

58. Strengths/limits described? **strenlim** –1 = entered into .txt file 9 = no information
(To aid coding later, enter [S] strength, [L] limitation, [F] factor, in .txt file)

Typology of the action research project

59. Placement in typology of action research by **variety** –1 = researcher 2 = inferred 9 = no information

60. Typology of project **typeAR** 1 = experimental 2 = organisational 3 = professionalising 4 = empowering

61.

Problem focus	**probtyp**	
Change intervention	**changtyp**	
Educational base	**edbasetyp**	
Cyclic process	**cycletyp**	
Individuals in groups	**grouptyp**	
Research relationship/collaboration	**relatetyp**	
Improvement and involvement	**impintyp**	

62. Appraisal of document (from Popay *et al.*[127])

Enter: 1 2 3 4 5
Yes _____ No

A clear statement of research aims?	**qaims**	
An action research approach appropriate?	**qapproac**	
Connection with existing body of knowledge made clear?	**qbody**	
Articulation of criteria to read/judge?	**qjudge**	
Study design responsive and flexible?	**qflex**	
Sampling strategy appropriate to aims?	**qsample**	
Research relationship adequately considered?	**qrelation**	
Data collection methods address the issue?	**qcollect**	
Data analysis sufficiently rigorous?	**qanalysi**	
Clear statement of findings?	**qresults**	
Links between data and commentary?	**qinterp**	
Findings transferable?	**qgen**	
Research relevant?	**qrelevan**	
Score	**score**	

63.	**Comments**					
64.	**Source of project**	**identify**	1 = electronic (phase 1) 3 = call 5 = researcher 7 = phase 2	2 = conference proceeding 4 = NHS trust 6 = handsearch		
65.	**Source of data**	**datsour**	1 = report	2 = abstract	3 = thesis	4 = journal paper
66.	**Name of journal**	**journame**				
67.	**Date entered**	**datin**				
68.	**Entered by**	**entered**	1 = dom			

Appendix 4

Interview schedule and topic guide

Focus group discussion

Introduction

- Duration of discussion: 1–1.5 hours.
- Purpose: to collect information for the systematic review on action research.
- Topics for discussion
  - the role of action research
  - the strengths and weaknesses of action research
  - guidelines for writing action research proposals and reports.

Ground rules

- The role of the focus group leader is to guide the discussion so that all the topics are covered in the time available.
- What is said during the focus group meeting is confidential.
- Participants' identities will remain anonymous.
- With participants' permission, the focus group discussions will be taped.
- Our interest is in participants' perspectives of action research relevant to the topics. There are no right or wrong answers.

Topic guide

1. Role of action research	1. Concept of action research 2. Explicit role 3. Implicit role	• generating change • implementing change • evaluation • generation of new knowledge • getting new knowledge into policy and practice
2. Strengths and weakness of action research	1. Barriers action research can overcome 2. Barriers that action research cannot overcome 3. Power of effect	• factors that inhibit change • sustainability • knock on effects • deficiencies in resolution/focus • unconvincing/not vigorous
3. Guidelines for writing and reports	1. Objectives 2. Context 3. Methodologies 4. Outcomes 5. Analysis – evaluation – action	• key factors contributing to the success/non success of proposals/publications • contents of reports – had/had no impact • making scientific value explicit

Appendix 5

Advisory panel

Dr Grindl Dockery, Independent Research Consultant and Liverpool School of Tropical Medicine, UK

Dr Janet Harris, University of Oxford, Continuing Professional Development Centre, UK

Professor Julienne Meyer, City University, St Bartholomew's School of Nursing and Midwifery, London, UK

Karen Spilsbury, City University, St Bartholomew's School of Nursing and Midwifery, London, UK

Professor Christine Webb, Professor of Health Studies, Institute of Health Studies, University of Plymouth, UK

Professor Richard Winter, Professor of Education, School of Community Health and Social Studies, Anglia Polytechnic University, UK

Appendix 6

Data extraction tables

Allen, 1997[71]	Allen E. A health clinic for people with learning disabilities. *Nurs Standard* 1997;**11**(30):34–7			
Key details				
Thematic concern	Lower use of health services of people with learning disabilities and inequalities in healthcare provision for such people			
Aims	To assess the feasibility of a pop-in health clinic in an adult training centre for people with learning disabilities		**Objectives**	None stated
Target of change	Services provision: health visiting		**Change innovation**	'Pop-in clinic' for people with learning disabilities
Location	Community: health visiting			
Sampling methods	Probability sample		**Analysis**	No information
Length of study	3 months			
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Reflection	Researcher	No participation	Liaison consultation at the health centre carried out on an *ad hoc* basis. Little opportunity for clients, or their key workers as advocates to have private consultations with the health visitor
Planning	Discussion	Managers Managers and staff	Consultation	Agreement about a more structured yet informal approach to health concerns Pop-in health clinic run by specialist health visitor to be implemented
Implementation	Pop-in health clinic sited at adult training centre	Health visitor (researcher) Clients	Cooperation	Weekly clinics held over 3 months; individual consultations carried out in private with known health visitor
Evaluation	No information	No information	No apparent participation	Pop-in clinic used by one-third of population under study = 30 people Consultations took place with clients, carers and key workers; self-referred/ social worker referrals Increased effectiveness of communication; more effective identification and follow-up of problems
Impacts	None apparent			
Dissemination	Journal publication			

Armitage *et al.*, 1991[110]	Armitage P, Champney SJ, Andrews K. Primary nursing and the role of the nurse preceptor in changing long-term mental health care: an evaluation. *J Adv Nurs* 1991;**16**:413–22 Also: Armitage P. Primary nursing in long-term psychiatric care. *Senior Nurse* 1989;**9**(9):22–4

Key details

Thematic concern	Care for patients (observed in the exploratory study) custodial and outmoded, with only minimal evidence of any rehabilitation		
Aims	Nurse preceptor given three main aims; 1. To foster improvements in nursing care within defined clinical area and to develop high standard of patient care through peer-group innovation and support 2. To create changes in nursing practice that would facilitate implementation of primary nursing 3. To give continued support and encouragement to primary nurses	**Objectives**	
Target of change	Nursing approach	**Change innovation**	Primary nursing
Location	Psychiatric hospital: two wards		
Sampling methods	Nurses assigned to duty rota of wards	**Analysis**	
Length of study			

Process

Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Exploratory study	No information	No information	Inverse nurse–resident interaction for conversational and social attention type of care according to need (residents with greatest need received least)
	Pre-implementation evaluation: (see post-implementation evaluation)	Peer group and expert group, nurses, patients	Cooperation	Minimal evidence of any rehabilitation Need for a move towards primary nursing identified
	Staff preparation by preceptor: decision making; clinical supervision; quality circles	Nurses	Compliance	Resident peer group support was at high level Package of changes proposed and nurse preceptor enlisted as change agent
Planning	Application of package of changes to two 18-bed single-sex wards	No information	No information	Amalgamation of two research wards to create larger living space which men and women could share (ward A)
	Monthly policy meetings	Core team, key professionals, management	Cooperation	Research wards produced operational policy document
Implementation	Primary nursing implemented by nurses (Ward A and later Ward B		Compliance	Introduction of information coordinator and ward housekeepers

continued

contd				
Armitage *et al.*, 1991[110]	Armitage P, Champney SJ, Andrews K. Primary nursing and the role of the nurse preceptor in changing long-term mental health care: an evaluation. *J Adv Nurs* 1991;**16**:413–22 Also: Armitage P. Primary nursing in long-term psychiatric care. *Senior Nurse* 1989;**9**(9):22–4			
***Process* contd** **Phases of action research cycle/s**	**Methods**	**Participants**	**Participation**	**Outcomes**
Evaluation	Observation of patient care and clinical meetings	Nurses, patients	Consultation	*Observation*: Increased activity and engagement; one of key results from study was that residents thought to be more autonomous following introduction of primary nursing; suggested this may be due to observed drop in disturbed behaviour; increased representation of nurses (via primary nurse) at multidisciplinary team meetings
	Standards of care (155-item checklist and retrospective analysis of nursing records)	Peer and expert groups	Cooperation	
	Questionnaire (job satisfaction, attitudes to nursing process, nurses' views on their role, ward atmosphere)	Nurses	Cooperation	*Assessors*: Implementation of changes followed by more individual and accountable care *Questionnaire*: Little difference in work involvement, intrinsic job motivation, perceived intrinsic job characteristics, higher order needs strength and nature of work pre- and post-intervention. Job satisfaction: higher scores ward A before intervention, no difference ward B. Findings suggest that unless satisfaction high before change to primary nursing, job satisfaction may be adversely affected. Favourable attitude towards nursing process. Ward atmosphere: post-intervention residents seen as more self-sufficient and independent; climate of care appeared more conducive to rehabilitation; environment of both wards said to have improved
	Patient satisfaction	No information	No information	*Patient satisfaction*: No information
				Package of changes regarded as successful where nurse preceptor helped existing staff to improve their standards of care through developing skills consistent with primary nursing and so avoid 'dumping ground' (for poor staff) phenomenon
Impacts	In order to sustain change, nurse preceptor contract continued (12 months) after research project			
Dissemination	Journal publication			

Batteson, 1997[73]	Batteson R. A strategy to improve nurse/occupational therapist communication for managing patients with splints. *Br J Occup Ther* 1997;**60**:451–5 Also: Batteson R. Before I asked a second opinion but now I know I can do it myself. *Educ Action Res* 1998;**5**:435–48			
Key details				
Thematic concern	Differences in clinical practice (nurses and occupational therapists) in the aftercare of splints			
Aims	1. To establish reason for difference in splint aftercare (nurses & occupational therapists) 2. To develop a collaborative approach to aftercare of splints to improve quality of service for these patients		**Objectives**	None specified
Target of change	Nurses		**Change innovation**	Nurse training programme
Location	Hospital ward			
Sampling methods	No information		**Analysis**	No information
Length of study	No information			
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Questionnaire; observation; focus group	Nurses	Consultation	Lack of communication and communication strategies between nurses and occupational therapists identified as a cause of differing clinical practice
Planning	Focus groups	Nurses, occupational therapists	Co-learning	Training programme for nurses developed
Implementation	Training programme	Nurses	Co-learning	Ward's nurses undertake splint-care training programme
Evaluation	Evaluation during final session of training programme	Nurses, occupational therapists	Collective action	Nurses' increased clinical knowledge and confidence relating to aftercare of splints; highlighted role of support worker in aftercare of splints
Planning	Focus groups	Nurses	Collective action	Strategy for increased nursing involvement identified Informal splints training programme established Ward resource file suggested
Implementation	Splint liaison nurse Ward resource file Splint aftercare training programme	Nurses	Collective action	Formal role established (see Impacts) Resources freed for ward *Resource file for splint aftercare* Increased collaborative working (nurses and occupational therapists)
Evaluation	No information	No information	No information	No information; project ongoing at time of writing
Impacts	Shift in nurse-manager attitude: formal 'splints training study day' is sponsored; splint aftercare resource file developed for commercial use; splint liaison nurse's role formally established			
Dissemination	Journal publication			

Bellman, 1996[59]	Bellman LM. Changing nursing practice through reflection on the Roper, Logan and Tierney model: the enhancement approach to action research. *J Adv Nurs* 1996;**24**:129–38			
Key details				
Thematic concern	Lack of evidence to support the view that adapting a nursing model has advantages			
Aims	None specified		**Objectives**	To investigate the process and outcomes from reflection on practice
Target of change	Nurses		**Change innovation**	Patient self-medication; patient-controlled analgesia (PCA); operation-specific patient medication
Location	Hospital ward			
Sampling methods	No information		**Analysis**	Descriptive analysis, Lewin's Force Field analysis
Length of study	15 months			
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Patient interviews Nursing care plan analysis Nurses self-rating scale	Patients	Consultation	Most significant congruent perception identified – psychological needs of surgical patient Ward selected to take part
	Group presentation (feedback)	Nurses	Consultation	
Planning	Exploration of literature and feedback to nursing staff Group reflection		Co-learning	Identification of three innovations: patient self-medication; PCA; operation-specific patient medication Action plans developed Nurses devised tool for patient self-medication and information leaflets
Implementation	Three innovations implemented	Nurses, multidisciplinary	Co-learning/ collective action	Patient expectations sometimes not met (innovation hindered) 'Non-compliance' of medical staff with innovations identified as barrier to change
Evaluation	Group reflection Interview	Nurses	Consultation	Greater nursing team cohesion Increased knowledge base and patient teaching skills; improved written and verbal skills; increased confidence, motivation and sense of achievement Links to model of nursing vary with theoretical attainment of nurse
Impacts	Innovations continue to be addressed following withdrawal of researcher Empowerment of nurses Raised awareness of research process and reduced the view that research elitist and distant			
Dissemination	Paper published			

Bond & Walton, 1998[96]	Bond M, Walton P. Knowing mothers: from practitioner research to self-help and organisational change. *Educ Action Res* 1998;**6**:111–29			
Key details				
Thematic concern	Services for children sexually abused by someone trusted			
Aims	To develop an appropriate service to support women through research and to stimulate action		**Objectives**	None specified
Target of change	Mothers of sexually abused children		**Change innovation**	Group meetings, communication strategies (mothers)
Location	Community (one county)			
Sampling methods	Used an existing group of mothers (i.e. opportunistic)		**Analysis**	No information
Length of study	24 months			
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Discussion Focus groups Discussion of emerging analysis	Manager Service users – mothers	Co-learning	Identification of inappropriateness of existing services Mothers' increased awareness of other mothers with similar problems Mothers' increased self-esteem Mothers' desire to take action
Planning	Group meetings	Manager Service users – mothers	Co-learning	Managers agree to: • joint production of *For mothers, by mothers* booklet • apply for funding for pilot therapeutic and support group for mothers in project's county based on research findings
Implementation	Mothers prepare/ write booklet Radio/TV programme presentations	Service users – mothers	Co-learning/collective action	
Evaluation	No information	No information	No information	Mothers empowered
Impacts	Empowerment of mothers Mothers continue with initiative			
Dissemination	Conference proceedings, workshops, paper publications by service users (mothers) and researcher			

Burrows, 1996[90]	Burrows D. An action research study on the nursing management of acute pain. Buckinghamshire: South Buckinghamshire NHS Trust; 1996			
Key details				
Thematic concern	Trust perceived need to improve nursing management of postoperative pain. (Informed by local knowledge and joint report of Royal Colleges of Surgeons and Anaesthetists)			
Aims	1. To examine criteria nurses use when deciding to discontinue PCA 2. To examine optimum length of time for PCA to be left in place 3. To develop and implement a protocol for discontinuation of PCA 4. To enhance good practice in assessment and management of post-operative pain		**Objectives**	None specified
Target of change	Nurses		**Change innovation**	
Location	Hospital ward			
Sampling methods	Cost–benefit analysis and likelihood of change adoption carried out to identify ward for change initiative; two wards selected		**Analysis**	No information
Length of study	12 months			
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Focus groups Questionnaires	Nurses	Consultation	Initial focus groups: nurses' reason for discontinuing PCA linked to tradition Questionnaires: degree of variation occurring
Planning	Questionnaire, literature search, expert knowledge Patient data Cost–benefit analysis and likelihood of change adoption	Co-researcher/ action group Patients	Cooperation	Draft protocol for discontinuation of PCA developed Pre patients change data: patient not involved in decision making
Implementation	Draft protocol implemented	Nurses	Cooperation	Selection of wards to implement protocol
Evaluation	Patient data	Nurses	Consultation	*Service users (patients)*: patients actively involved – patients' wishes, pain intensity score and amount of morphine became overriding criteria; reduction in psychological distress, enhanced pain control, improved patient recovery nausea remained major problem – nausea audit in progress *Nurses*: philosophy of PCA enhanced; nurses' knowledge and confidence in acute pain management improved and nurses empowered to take responsibility for PCA; collaborative action group (nurses) gained research experience PCA resource management enhanced on study wards System of annual audit identified to monitor implementation of protocol; recommendations made to improve protocol, for additional resources and for communication system to inform those not directly linked to study
Impacts	Patient actively involved; patients' wishes, pain intensity scores and amounts of morphine became over-riding criteria Empowerment of nurses to take responsibility for their decisions and actions; encouraged them to involve patients in effective pain management			
Dissemination	Conferences, publications, local dissemination to other wards (nurses'collaborative action group, researcher)			

Burrows & Baillie, 1998[44] Burrows D, Baillie L. Bridging the theory practice gap; developing "knowledgeable doers" for nursing practice. Luton: University of Luton; 1998

Key details			
Thematic concern	Students and practitioners concern with student's clinical skill development. Practitioners often too busy to teach practical skills effectively in clinical settings		
Aims	None specified	**Objectives**	1. To implement a more effective method for teaching nursing skills to students 2. To influence a change of attitudes towards skills teaching in nurse lecturers
Target of change	Nurse teachers; nurse students	**Change innovation**	Skills workshops for students
Location	Educational institute		
Sampling methods	Random selection of students from three common foundation programme cohorts	**Analysis**	Qualitative analysis
Length of study	No information		

Process **Phases of action research cycle**	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Questionnaire Focus group interviews Individual interviews	Key lecturing staff Nursing students Practicing nurses, nursing students and lecturers	Consultation	Questionnaire: some lecturers had negative attitudes towards proposed initiative Focus group interviews: students wanted to practice skills away from clinical setting
Planning	No information	No information (researcher only)	No direct participation	Identify possible changes; develop pilot workshops
Implementation	Three workshops to pilot new techniques	Facilitator as participant observer, student nurses	Cooperation	
Evaluation	Formal evaluations Systematic analysis of field notes	Student nurses	Consultation	Suggest introducing lunchtime workshops Suggest incorporation of formal taught skills session to timetable
Planning	Group meeting	Lecturers	Cooperation	Learning packages produced. Each pack peer-reviewed and piloted with students
Implementation	Lunchtime workshops and formal taught sessions at college	Facilitator as participant observer, student nurses	Cooperation	
Evaluation	No information	Student nurses, nursing staff	Consultation	Students less anxious and enter clinical placements with some skills Students develop clinical competencies more quickly

Impacts	Attitude change of lecturers Programme of continuous lunchtime workshops supported by skills package introduced Formal taught session incorporated into curriculum
Dissemination	Report

Cayne, 1995[93]	Cayne JV. Portfolios: a developmental influence? *J Adv Nurs* 1995;**21**:395–405			
Key details				
Thematic concern	Staff did not plan their continuing education in systematic way, or record effects of education on their personal professional development; the literature claimed preparation of portfolios would provide impetus for personal professional development of individuals involved			
Research questions	1. Is the process of portfolio preparation in itself developmental? 2. What factors influence this developmental process?		**Objectives**	None specified
Target of change	Nurses		**Change innovation**	Group learning
Location	Hospital ward			
Sampling methods	Convenience sampling		**Analysis**	Thematic content analysis
Length of study	2 months			
Process				
Phases of action research cycle	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Situational analysis	No information	No apparent participation	Portfolios identified as method to assist nursing staff review past and plan future learning
Planning	No information	Ward nurses	No apparent participation	Permission gained to conduct project and nursing participants selected
Implementation	Group learning	Ward nurses	Compliance	First session conducted hierarchically – contract and framework for developing portfolio for group established Remaining group meetings focused on problems raised about portfolios by group
Evaluation	Participant observer – field notes; group sessions taped; exploratory questionnaire; interviews; feed back draft findings to all ward's nurses	Ward nurses	Cooperation	Completion of portfolios Some indications of potential for portfolios to develop reflectivity Some factors identified that help/hinder developing reflectivity Researcher's insight into action research process enhanced
Impacts	Nurses began addressing obstacles to learning in their clinical area Increased awareness of the value of experiential learning among nurses Reinforced researcher's philosophy that research is personal process for both researchers and researched			
Dissemination	Publication			

Clarke, 1998[55]	Clarke C. Developing the pervasiveness of practice developments on professional learning and on organisations as learning environments. *Clin Effect Nurs* 1998;**2**:30–6			
Key details				
Thematic concern	To make explicit the networks and processes to enable healthcare organisations to facilitate professional and organisational learning in practice care developments			
Aims	1. To develop process of practice care developments in relation to their impacts on professional learning and organisations as learning environments 2. To map practice developments within Northern and Yorkshire Regional Health Authority 3. To describe pervasiveness of practice developments at multiple organisational points and across professional groups 4. To develop process of practice development project in relation to professional and organisational learning			
Target of change	Practitioners and university-based academic staff and related organisations		**Change innovation**	Weekly practice development seminar group
Location	Eight sites in Northern and Yorkshire Health Authority			
Sampling methods	Eight identified sites representing a range of four models of practice Questionnaire: participants (at eight sites) identified through Practice and Service Development Initiative of CRD Interviewees: participants selected through matrix for multi-dimensional analysis Practice development seminars: practitioner/researchers selected through geographical proximity to University of Northumbria, Newcastle-upon-Tyne		**Analysis**	No information
Length of study	24 months (inferred)			
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Questionnaires	Practitioners (n = 474)	Consultation	*Survey results* (questionnaire response rate = 45.7%) Profile of those developing practice Reasons given for developing practice: 54% response to internal environment; 9.1% response to external factor, e.g. national guidelines; 5.1% awareness of alternative practices; 13.8% changes in role of professional Facilitating development practice: 63% occurred in environments that explicitly supported practice developments; 73% of practice development had no links with academic institution; 40.3% sought funding; 61% of funding came from charities and 'other', with 31.2% from trust and 7.8% from regional and national R&D funding Development of a matrix for multi-dimensional analysis (inferred from protocol) *Publication* (see reference above)
Planning	Semi-structured interviews	Practitioners	Consultation	No information
Implementation	Weekly practice development seminar group (18 months)	Researchers, practitioners	Cooperation	Facilitated seminar programme – mechanism for disseminating learning about processes of developing practice to healthcare provider organisations through system of facilitators and collaborative peer learning CPDA – a framework to facilitate, recognise and reward development of R&D in clinical practice
Evaluation	Tape-recorded sub-set of ten seminars	Researchers, practitioners	Cooperation	Process of developing practice: two key concerns identified – management of self as researcher and practitioner, and management of uncertainty in process of developing practice. Results to be published in *Journal of Advanced Nursing*
Impacts	University has validated CPDA for 5 years. One successful CPDA event accomplished (year 1) and will be able to operate at international level (from year 2). Number of free-standing projects have been informed by the research, plus an initiative to develop research partnerships between practice development work and university and healthcare provider organisations			
Dissemination	Conference presentations, journal publications (2)			

Clifford & Murray, 1998[78] Clifford C, Murray S. Getting research into practice. Birmingham: NHS Executive, R&D Directorate (West Midlands); 1998

Key details

Thematic concern			
Aims	To explore means of 'getting research into practice ' in one acute hospital trust in the West Midlands		
Objectives	1. Identify a baseline of factors influencing research utilisation in nursing in one NHS hospital trust 2. Respond to staff need for education about research on provision of research awareness programmes 3. Identify priority areas of clinical nursing practice that will provide focus for development 4. Focus on one (possibly two) areas of clinical nursing practice from priorities identified and, with clinical staff, plan and implement a collaborative programme designed for GRIP 5. Evaluate the impact of the project 6. Utilise experiences gained to extend GRIP project with other practitioners for purpose of enhancing research utilisation in nursing		
Target of change	Nurses	**Change innovation**	Educational – open learning books Practical – undertake a research project
Location	Hospital		
Sampling methods	Nurses to undertake a research project applied for; selected by committee	**Analysis**	No information
Length of study			

Process

Phases of action research cycle/s	Methods	Participants	Participation	Outcomes
Information gathering	Research utilisation survey Focus group interviews Individual interviews	All nurses	Consultation	Identified educational deficits in research knowledge Identified preference for educational approach, educational needs and clinical problems for development
Planning	See 'Information gathering' Offer 'project development awards' in order to identify priority areas for development	Project team Project board and steering group	Collective action/ consultation	Open learning texts developed and piloted Offer small project development grants and instigate application procedure Provide support for staff developing research proposals Five projects selected; to be undertaken with support of research associate
Implementation	Open learning books/ tutorial support Support from researcher	Project nurses	Co-learning	Five project teams start to implement projects *Positive outcomes* Increase in confidence and motivation with group to develop research ideas Positive learning experience in developing projects proposals Increased recognition of value of working collaboratively Increase in networking across trust (staff accessed conferences or visited other centres as part of project development) Opportunity for staff to attend and present at conferences seen as positive learning experience Development of newsletter to increase awareness in trust GRIP project considered to have promoted trust *Difficulties identified* Linked to staff shortages, transience and low morale due to climate of change within trust

continued

contd
Clifford & Murray, 1998[78] Clifford C, Murray S. Getting research into practice. Birmingham: NHS Executive, R&D Directorate (West Midlands); 1998

***Process* contd** **Phases of action research cycle/s**	**Methods**	**Participants**	**Participation**	**Outcomes**
Evaluation	Education programme: pre/post test questionnaire Project update: research teams listed specific concerns and positive outcomes of GRIP (for review by project management board)	Project nurses, project board	Consultation	Project demonstrated that it is possible to identify a 'baseline' of factors influencing research utilisation in nursing in one NHS hospital trust Need for education about research through provision of research awareness programmes seen as crucial for developing any similar projects in future Organisational change in a trust may conflict with R&D agenda Staff involved in project noted that perception of management support was important in facilitating project development
	Discussion	Project board	Consultation	Chief nurses and research fellow would: assess progress of each project team; determine commitment by each team to continue with projects; identify support needed from within trust for teams to progress with projects; develop withdrawal strategy for project team
Impacts	Initial stage of project being replicated at another hospital Non-Executive and Executive Directors of trust have indicated continuing support for GRIP project but no further project awards will be offered. There is insufficient capacity for nursing and midwifery staff in trust to support further developments at this time and decisions about future developments will be made on basis of completion of projects supported to date Withdrawal strategy specifically developed to ensure that project continues after project teams have left: research steering group (eight nursing staff) continues to coordinate R&D activity from nursing and midwifery perspective; staff education through open learning will continue, supported by existing education staff employed by trust			
Dissemination	Work on project to date presented at local and national conferences by GRIP project team and members of nursing staff from trust			

Collin *et al.*, 1981[97]	Collin AJ, Edmonstone JD, Sturt JR. Commissioning DGHs: The state of the art. *Hosp Health Services Rev* 1981;**77**:268–71			
Key details				
Thematic concern	Technical process of planning and building district general hospitals (DGHs)) has detailed consideration but relatively little attention is paid to organisational change and trauma involved The lack of useful shared knowledge in [DGH] commissioning field			
Aims	To provide shared knowledge in [DGH] commissioning field (inferred)		**Objectives**	None specified
Target of change	Multidisciplinary		**Change innovation**	Provision of counselling skills to managers
Location	DGH			
Sampling methods	No information		**Analysis**	No information
Length of study	No information			
Process				
Phases of action research cycle	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Dialogue (inferred)	Local commissioning team	Consultation	Identified two main ways of helping limit damage to staff: skilled counselling for managers and involvement of staff in decisions
Planning	No information	No information	No apparent participation	No information
Implementation	Provision of counselling skills for middle and first-line managers at one DGH	DGH managers and staff	Consultation/compliance	
Evaluation	'Collection of relevant data' Feedback (to commissioning team)	DGH managers and staff Commissioning team	Consultation	*Limitations of counselling* Not all managers have skills or capacity, especially when under considerable pressure Counselling may raise practical problems that may be very difficult to solve, especially in transfer and closure situation May be futile to impart counselling skills by training programmes alone *Staff* Need to be considered in context of broader processes of management Prefer smaller, more decentralised and intimate work units, which provide clearer sense of purpose and identity in institution as a whole *Managers* With approach of DGH opening, obtaining full commitment and involvement of managers becomes progressively more difficult *Recommendations* made on process, relationships between local and top management, policy, dissemination, and need to define limits of degree of group participation
Information gathering	Seminar	Management officers from seven health authorities	Co-learning	Participants at seminar identified 80 problem areas that needed further consideration Locally there was recognition that, at this stage (transfer to a new DGH), there was need to provide support rather than fresh problems for all concerned
Impacts	None identified			
Dissemination	Journal publication, seminar (see above)			

Crowley, 1996[74]	Crowley J. A clash of cultures; improving the quality of care through an action research process [MSc]. London: Institute of Advanced Education, Royal College of Nursing; 1996			
Key details				
Thematic concern				
Aims	1. To improve quality of care provided to those attending an A&E department with mental health needs, through a nursing staff development programme 2. To create an educational resource pack on mental health issues		**Objectives**	None stated
Target of change	Nurses		**Change innovation**	Reflection
Location	Hospital (A&E department)			
Sampling methods	Values clarification exercise: opportunistic, i.e. nurses happened to be on duty Researcher identified key people, i.e. mental health nurse and liaison sister Study away-day: randomisation and selectivity (four co-researchers selected)		**Analysis**	Thematic content analysis
Length of study	12 months			
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Meetings Field notes Post-case discussion/ feedback Values clarification exercise	Nurses	Co-learning	Identified lack of mental health training for nurses and medical staff
Planning	Meetings Group analysis Study away-day	Different groups of selected nurses	Co-learning	Group analysis 1: identified nine mental healthcare themes for focused development (6 months into project) Group analysis 2: five strategies identified for collaborative working Organised and developed teaching sessions
Implementation	Teaching sessions	Nurses	No information	Little information; possibly poor attendance at teaching sessions
Evaluation	Group analysis	Selected nurses	Co-learning	Final group analysis: five themes identified (no evaluation of educational innovation (i) Conflict – in dominant culture: talking (mental health) and activity (A&E) – in environmental values: privacy, quiet and calm (mental health) and open, busy, noisy, designed for maximum observation for greatest number (A&E) (ii) Status – staff and organisation gave higher status to technology than mental health knowledge (iii) Dependency/dominance – medical domination (iv) Communication style – short term, inappropriate for mental health problems (v) Relationships (with attendees) – brief, superficial and predominantly concerned with assessment A&E staff coping with more mental health issues, less call for assistance, increased understanding of needs of mental health user
	Post action research study audit	Charge nurse/mental health unit manager	Collective action	
Impacts	[Personal communication] Not possible to determine if following directly attributable to action research study or organisational changes: staff initiated and organised first national conference on mental health issues and A&E care; employment of two mental health practitioners to complete mental health assessments in A&E department, as well as teaching and departmental support			
Dissemination	Written report			

East & Robinson, 1994[100]	East L, Robinson J. Change in process: bringing about change in health care through action research. *J Clin Nurs* 1994;**3**:57–61			
Key details				
Thematic concern	Health authority received unfavourable external reports concerns surrounding standards of care			
Aims	No clear statement; to ease senior nurses' transition from traditional senior nurse role to new-style ward manager		**Objectives**	None specified
Target of change	Multidisciplinary		**Change innovation**	None; first phase of action research study only
Location	Hospital			
Sampling methods	No information		**Analysis**	No information
Length of study	24 months			
Process				
Phases of action research cycle	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Interviews	Senior management	Consultation	Management's objective of project identified: to ease senior nurses' transition from traditional senior nurse role to new-style G-grade, standard-setting, budget-holding ward manager
	2-day diagnostic workshop including occupational stress indicator measurement	Senior nurses	Consultation	Conflicting perspectives between managers and senior nurses as to root cause of problem inhibiting change: management believed senior nurses inhibiting change; senior nurses wished to change but had different agendas and were constrained by management High levels of job-related stress among senior nurses attributable to lack of power
	Case study, participant observation, interview with ward staff and documentary analysis	Researcher, ward staff	Cooperation	Identified factors inhibiting change (nurses): effects on ward staff of managerially-driven change process rarely discussed in detail with nurses; managerially-driven change processes not grasped as major opportunity for change; nurses had no sense of ownership, poor understanding of initiatives and lack of enthusiasm; structural factors with economic basis and day-to-day fluctuation in staff arising from financial constraints and crisis management
Planning				Project ongoing; researchers will attempt to find common ground between differing agendas of managers and nurses
Implementation				Project ongoing
Evaluation				Project ongoing
Impacts	None identified			
Dissemination	Journal publication			

Fraser, 1996[94]	Fraser DM. Pre-registration midwifery programmes: a case study evaluation of the non-midwifery placements. *Midwifery* 1996;**12**:16–22 Also: Fraser D. Ethical dilemmas and practical problems for the practitioner researcher. *Educ Action Res* 1997;**5**:161–72			
Key details				
Thematic concern	Concern that 3-year pre-registration programme for midwives could not equip students from diverse backgrounds, with no nursing experience, to care effectively for childbearing women with medical or obstetric problems			
Aims	None specified		**Objective**	To evaluate effectiveness of non-midwifery placements in enabling pre-registration (direct entry) student midwives to learn about caring for childbearing women with medical, surgical or mental health problems and needs
Target of change	Student midwives		**Change innovation**	Non-midwifery placements
Location	Hospital/educational institution			
Sampling methods	No information		**Analysis**	No information
Length of study	No information			
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Meetings (inferred)	Course team Management, academic supervisor	Collective action	Course team decided that some placement in an acute hospital essential Multiple case-study design chosen (student = case) Senior managers of trust gave consent to approach staff Academic supervisor agreed to facilitate study as resource person
Planning	Local survey (questionnaires) Documentary evidence (types of health problems, educational audit of practice placements, record of case-study students)	Midwives, family doctors and obstetricians; academic supervisor	Consultation	What constitutes appropriate learning for midwives in areas of surgery and medicine determined
Implementation	Students undertook non-midwifery placements in medicine, surgery and mental health	Midwifery students	Cooperation	Evidence collected as it emerged; used to consider whether alternative strategies needed for individual students or course as a whole
	Transferability of skills tested by 5-week placement in labour ward	Midwives and midwifery students	Cooperation	
Evaluation	Semi-structured interview Classroom observation (Effectiveness for each student evaluated)	Students, midwives, nurses and teachers	Consultation	Increased student maturity, confidence and development of communication skills Enhanced student understanding of multi-disciplinary team's contributions to healthcare Students learnt new practical skills that were transferable to maternity care context
Impacts	Provided data for curriculum development Helped to avoid premature reaction to individual staff and student response Value of medical/surgical/mental health placements established			
Dissemination	Publication in two journals			

Galvin *et al.*, 1997[69]	Galvin K, Andrewes C, Jackson D, Cheesman S, Fudge T, Ferris R, *et al.* Implementing and investigating change within the primary healthcare nursing team: an action research study. Bournemouth: Bournemouth University/Dorset Health Authority; 1997.

Key details

Thematic concern	Lack of coordinated team approach, tasks performed in isolation, duplication of tasks.		
Aims	1. Identify conditions for effective teamwork 2. Define new role and responsibilities 3. Propose/implement new model of working as a team	**Objectives**	None specified
Target of change	Practice nurses; health visitors	**Change innovation**	Implemented clinics; undertook new roles/skills
Location	Community: GP practice		
Sampling methods	Focus group interviews: theoretical sample Survey of user perceptions: purposeful sample	**Analysis**	Focus group interviews: thematic content analysis Survey of user perspectives: 5-point Likert scale Services delivery: SWOT [strengths, weaknesses, opportunities, threats] analysis Observation: task analysis
Length of study	12 months		

Process

Phases of action research cycle	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Survey Reflective diaries Interviews Focus group	Patients Nurses, GPs	Consultation Cooperation	Identified service needs Identified areas of role duplication, communication needs
Planning	Group meetings Attend educational sessions	Nurses	Co-learning/cooperation	Developed leg ulcer protocol Developed integrated care pathway assessment tool (coronary events) Delineated boundaries of specialist skills and roles
Implementation	Implemented clinics Undertook new roles	Nurses	Co-learning/cooperation	Implemented leg ulcer clinic Implemented integrated care pathway assessment tool (coronary events) Adopted new boundaries (skills) of working, e.g. health visitor undertakes all immunisations
Evaluation	Observation Reflective diaries Survey	Nurses, GPs Patients	Cooperation Consultation	Improvement in continuity of care and access throughout childcare service Clarification of boundaries of specialist skills Patient approval of new leg ulcer clinic

Impacts	Identification of a new nurses role to promote team working Some implementation of approach/innovations in other health centres
Dissemination	Written report; published paper

Ghazi, 1994[87]	Ghazi F. Auditing student practice placements. *Nurs Standard* 1994;**8**:36–9				
Key details					
Thematic concern	Amalgamation of three schools of nursing required replacement of the existing audit systems				
Aims	To develop a single audit tool which met the auditing requirements of all courses offered by new college, in particular, the new 'Project 2000' course			**Remit of working group**	To identify criteria constituting a good practice placement To identify how a new audit tool could be devised to identify extent to which practice placements comply with criteria To identify how education and service colleagues can work together to enhance student clinical experience
Target of change	Service and educational staff			**Change innovation**	
Location	Hospital				
Sampling methods	Non-randomised sample of clinical environments			**Analysis**	Thematic analysis
Length of study	12 months				
Process					
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**	
Information gathering	No information	No information	No information	'Illuminating evaluation' of different methods and styles of auditing, and their effect on bridging gap between service and education	
Planning	Data collection: comments and responses to information given, and working groups	Working group – (educational and service staff)	Cooperation	Three different themes emerged from data: role of mentor; role of designated tutor; development of individual practitioners. Findings collated and became basis for new audit tool Developed pilot audit tool; approved by working group	
Implementation	Workshop for those piloting new audit tool Written instructions Researcher present to advise practitioners as audit tool piloted	Service/ educational staff in 20 departments Tutor, managers (give approval)	Compliance	New auditing of new placements or re-auditing of old placements	
Evaluation	Designated tutor asked for comments after audit had taken place	Educational staff	Consultation	Increasing level of understanding of auditing process by tutorial and service staff Raised profile of auditing as significant Developed audit tool that was both effective and useable by those engaged in auditing exercise Some minor amendments made to new auditing tool	
Impacts	New audit tool adopted throughout college				
Dissemination	Final debriefing for those involved (pilot study, working party). Journal publication				

Gibson, 1992[84]	Gibson K. Developing services for elderly people. *Nurs Standard* 1992;**6**(31):29–32			
Key details				
Thematic concern	No information			
Aims	1. To enhance nursing auxiliaries competence in basic patient care skills 2. To provide support to nursing auxiliaries in their challenging role 3. To improve nursing auxiliaries perception of their role and that of others 4. To improve attitudes between nursing auxiliaries colleagues, patients and visitors		**Objectives**	None specified
Target of change	Nursing auxiliaries		**Change innovation**	No information
Location	Hospital			
Sampling methods	Random cross-section of all auxiliary nurses on ward		**Analysis**	No information
Length of study	12 months			
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Semi-structured interview Non-participant observation Role model/guide (researcher)	Nurses Nurse manager Auxiliary nurses	Consultation Consultation Cooperation	Baseline assessment of role of nursing auxiliary: general dissatisfaction and devaluation of nursing auxiliaries present role; nursing auxiliary practice needed improvement
Planning	Group meetings	Nurses	Consultation	Staff development programme Written standard focus attempted to improve patient care
Implementation	No information	No information	No information	
Evaluation	No information	No information	No information	Project ongoing at time of writing 'care began to improve' – improvement recognised by wards reinforced process of change; staff morale increased (perceived); staff realised benefit of change and that small-scale innovation can be put into practice
Impacts	Nurses still have not yet accepted total ownership of the change process			
Dissemination	Journal publication			

Gibson *et al.*, 1997[48]	Gibson F, Horsford J, Nelson W. Oral care: ritualistic practice reconsidered within a framework of action research. *J Cancer Nurs* 1997;**1**:183–90			
Key details				
Thematic concern	Conflicting information (anecdotal evidence and tradition) about oral care; nurses unsure which oral care regimens to follow			
Aims	None specified		**Objectives**	None specified
Target of change	Multidisciplinary		**Change innovation**	Oral assessment guide (OAG), mouth-care protocol, algorithm
Location	Hospital (1 paediatric oncology ward)			
Sampling methods	No information		**Analysis**	No information
Length of study	No information			
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Working party	Expert practitioners, educationalist	Co-learning	Identified absence of structured oral assessment tool No common language among nurses to communicate findings of oral assessment
Planning	Preparation of ward for introduction of new oral assessment tool: formal/ informal teaching sessions, OAG and score sheet circulated, teaching file on oral care updated, visual aids (poster display, etc)	Key members of the 'team': nursing, medical staff and ward dentist	Cooperation	OAG identified
Implementation	OAG introduced to assess oral status of all patients	No information	No information	Problems identified before formal evaluation of OAG: (i) mouth care regimes did not reflect variation in outcomes (ii) children with no oral problem received treatment unnecessarily (iii) such inappropriate care affected compliance and parent–child relationship (iv) information gathered from conference suggested alternative regimen
Planning	Systematic review of literature Use experience and knowledge of expert panel First draft and focused questionnaire Second draft circulated/ presentations made at team meetings and forums Cost analysis	Working party Multidisciplinary team Nursing staff, medical consultants;, pharmacists Pharmacists	Co-learning Cooperation Cooperation	Production of mouth-care protocol and an algorithm that reflected needs of children receiving protocols of chemotherapy Distribution to team members Updating of existing mouth-care booklet for parents and children
Implementation	No information	No information	No information	

continued

contd				
Gibson *et al.*, 1997[48]	Gibson F, Horsford J, Nelson W. Oral care: ritualistic practice reconsidered within a framework of action research. *J Cancer Nurs* 1997;**1**:183–90			
***Process* contd**				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Evaluation	No information	No information	No information	OAG only used for those children receiving regimens that could potentially result in stomatitis Use of mouth-care protocol and algorithm resulted in individualised care Algorithm has facilitated nursing and medical decisions resulting in appropriate intervention
Impacts	Results of audit (OAG, mouth-care protocol and algorithm): • practice no longer ritualised, children now receiving systemic antifungal agent • perceived risk reduction in incidence of patient (children) dental caries and reduction in nutritional problems • compliance improved, reduction in conflicting advice given to parents • increased confidence and competence of staff			
Dissemination	Journal publication, local dissemination (presentations, meetings, etc.)			

Hanlon *et al.*, 1997[50]	Hanlon P, Beck S, Robertson G, Henderson M, McQuillan R, Capewell S, *et al.* Coping with the inexorable rise in medical admissions: evaluating a radical reorganisation of acute medical care in a Scottish district general hospital. *Health Bull* 1997;**55**:176–84		
Key details			
Thematic concern	Few options relating to reduction of admissions have been properly evaluated or costed	**Objectives**	To describe radical changes to acute medical care in a DGH and assess their impact on staff and patients
Target of change	Organisation and hospital staff	**Change innovation**	1. Conversion of six general medical wards into 38-bed medical admissions unit (MAU) 2. New acute receiving rota for consultants (1/6 weeks)
Location	Hospital		
Sampling methods	Random sample of 400 patients	**Analysis**	Patient proportions – chi-squared test Staff questionnaires – Kruskall–Wallis H test Patient questionnaires – direct comparison and chi-squared test Staff interviews – no information
Length of study	12 months		

Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Little information; one source was Information and Statistics Division, NHS Scotland	Hospital medical directorate	Collective action	Greatly increased admissions (from 3000 to 8000/year over 10 years) relative to almost static resource base (consultants increased from 5 to 6 over 10 years; total number of beds unchanged) Decision to embark on radical reorganisation of care
Planning	Away-day	Consultant medical staff	Collective action	List of ten objectives for reorganisation developed and refined: (i) reduce boarding and forced transfers
	'Wider discussions'	No information	No information	(ii) improve continuity of consultant care (iii) create 30-bed acute receiving ward (iv) increase consultant input to acute receiving (v) provide alternatives to admission (vi) create more specialised wards (vii) create rehabilitation ward (viii) increase efficiency in bed use (ix) address key deficiencies identified by staff (x) improve patient perception of care
Implementation	Reorganisation of wards New rota for consultants	No direct information	Cooperation (implied)	(i) Reorganisation of wards: creation of 38-bed MAU; re-routing of medical admissions through MAU or CCU; remaining 30-bed medical wards changed to four more specialised units; £70,000 capital costs incurred (hospital capital budget and charitable contributions) (ii) Changes to system of medical receiving: consultant on call for admissions 1/6 weeks (iii) Organisation of patient management: greater involvement of consultants in patient management

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Hanlon *et al.*, 1997[50]	Hanlon P, Beck S, Robertson G, Henderson M, McQuillan R, Capewell S, *et al.* Coping with the inexorable rise in medical admissions: evaluating a radical reorganisation of acute medical care in a Scottish district general hospital. *Health Bull* 1997;**55**:176–84			
***Process* contd** **Phases of action research cycle/s**	**Methods**	**Participants**	**Participation**	**Outcomes**
Evaluation	Pre- and post-intervention data: activity data, first diagnosis – consultant match, bed occupancy and length of stay			*Results post-intervention*: (i) reorganisation of wards: improved collaboration and team approach to care of patients (ii) changes to system of medical receiving: higher level of consultant input and leadership, greater continuity of care for patients, more appropriate staff skills mix to patient needs, enhanced support services (e.g. phlebotomy, ECG, rapid radiology) (iii) organisation of patient management: improved first diagnosis–consultant/specialist ward match; no boarding outside medical beds since April 1995; no significant changes in length of stay; number of admissions continues to rise (from 84% to 88%)
	6 focus groups, interviews	Non-consultant medical staff (n = 26), nursing staff (n = 96)	Consultation	*Staff views (response rate 64–66%)* Non-consultant medical staff: improved tracking of patients ($p < 0.01$); less concern over boarding ($p < 0.01$); more concern over blocked beds ($p < 0.05$)
	3 questionnaire surveys	All staff	Consultation	Consultants: increased concern over lengthened waiting times (not substantiated) Nursing staff: increased time for health promotion ($p < 0.01$); increased stress ($p < 0.05$), particularly in MAU, was main disadvantage
	4 postal questionnaire surveys	Patients (n = 400)	Consultation	*Patient surveys: (response rate 57%)* Perceived increase in time of staff for teaching ($p < 0.05$) Higher proportion felt ready for discharge ($p < 0.05$)
Impacts	To provide evidence supporting case against national policy dictating that acute bed numbers will decline			
Dissemination	Journal publication			

Henderson, 1997[98]	Henderson C. 'Changing childbirth' and the West Midlands Region 1995–1996. London: Royal College of Midwives; 1997 Also: Henderson C. Confident, committed managers: the key to successful change. *RCM Midwives J* 1998;**1**(2):56–9			
Key details				
Thematic concern	Difference in rate of progression towards government indicator ('Changing childbirth'); some midwifery managers lack power/experience/skills to implement			
Aims	To support heads of midwifery services implement changes relating to 'Changing childbirth' initiative		**Objectives**	None specified
Target of change	Midwifery managers		**Change innovation**	Action learning sets
Location	Mixed			
Sampling methods	No information		**Analysis**	Importance performance analysis
Length of study	12 months			
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Literature Semi-structured interviews	Heads of midwifery	Consultation	Developed profile of maternity services in region Determined current progress made towards 'Changing childbirth' indicators of success Clarified educational and support needs of midwives and managers
Planning	Group discussion Questionnaire/importance performance analysis Feedback Literature search	Heads of midwifery	Consultation/ cooperation	Identified action learning sets as method of peer support Review of current literature on action learning and action learning sets Identified sources of funding
Implementation	Action learning sets	Heads of midwifery	Consultation/ cooperation	Establishment of four action learning sets to provide support, networking and exchange ideas
Evaluation	Questionnaire/importance of performance analysis	Heads of midwifery	Consultation	Better peer support Enhanced networks locally, regionally and nationally Opportunity to share ideas, common problems and good practice Time and resources saved due to shared planning activity Increased confidence and ability to take change forward Dialogue between trusts More efficient use of resources Recommendations made for supporting midwifery managers in their role
Impacts	Recognised value of learning sets: additional Department of Health funding for 1 year			
Dissemination	Report, conference presentations, published paper			

Howard, 1991[86]	Howard D. Student profiles through action research. *Senior Nurse* 1991;**11**(3):17–20			
Key details				
Thematic concern	Course placed emphasis on self-directed learning yet, during theoretical components, students were unable to identify easily their learning needs			
Aims	To improve learning environment for one group of nursing student		**Objectives**	None specified
Target of change	Nursing students		**Change innovation**	
Location	Educational institution			
Sampling methods	No information		**Analysis**	Means, critical analysis
Length of study	No information			
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Interviews	Nursing students	Consultation	Students did not find assessment appropriate to identify their learning needs; did not feel confident to negotiate change in their learning programme; were unable to decide whether their existing knowledge was appropriate to course requirements
Planning	Literature search Teachers' comments analysed Triangulation of self-assessment, peer-assignment and tutor assessment	Nurse teachers	Consultation	System of individual student profiling developed
Implementation	Afternoon session to familiarise students with intervention Individual student profiling implemented	Nursing students	Cooperation	Students undertook profiling
Evaluation	Interviews	Nursing students	Consultation	Students found instrument useful and were able to identify their strengths and weaknesses; had confidence in evaluations and felt able to negotiate future sessions
Impacts	Possible empowerment of students			
Dissemination	Journal publication			

Howie *et al.*, 1993[92]	Howie J, Heaney DJ, Maxwell M. Evaluation of the Scottish shadow fund-holding project: first results. *Health Bull* 1993;**51**:94–105 Also: Howie J, Heaney D, Maxwell M. General practice fund holding; shadow project – an evaluation: University of Edinburgh; 1995

Key details			
Thematic concern	Introduction of internal market of healthcare in which GPs would become fund-holders; remit was to assemble best available descriptive data on working and results of budget experiment		
Research questions	1. How does holding a fund affect volume, cost and quality of prescribing? 2. What are effects of holding fund on utilisation of hospital and other specialist services? 3. What are effects of holding fund on nature and outcome of consultations? 4. What are implications of fund-holding on organisation of practices? 5. What are perceptions of patients and professionals of cost and benefit of fund-holding unit?		
Target of change	General practices	**Change innovation**	Fund-holding
Location	Six general practice fund-holding groups (5 in Grampian; 1 in Tayside) Total practice population 84,000; number of GPs 50 (stable throughout study)	**Mode of participation**	Cooperation
Sampling methods	Practices volunteered	**Analysis**	Quantitative – descriptive statistics, chi-squared test Qualitative (inferred)
Length of study	36 months		

Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Government White paper *Working for patients*	Researchers	No information	Independent evaluation to test mechanisms proposed in White Paper
Planning	Discussions Peer review	Minister, participating doctors	Cooperation	Developed definition of quality Prescribing: developed 'DDD' (defined daily doses) conversion formulae for all preparations in 11 key drug groups Assessing health needs: developed instrument enquiring about patients' perceptions of their own health needs, psychological and social well-being Developed outcome instrument using mix of 'satisfaction' and 'enablement' questions and method of amalgamating responses to give single 'enablement' score Identified limitations in use of available routine data (prescribing and hospital activity) Computing and managerial allowances and research allowance provided

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Howie *et al.*, 1993[92] Howie J, Heaney DJ, Maxwell M. Evaluation of the Scottish shadow fund-holding project: first results. *Health Bull* 1993;**51**:94–105
Also: Howie J, Heaney D, Maxwell M. General practice fund holding; shadow project – an evaluation: University of Edinburgh; 1995

***Process* contd** **Phases of action research cycle/s**	**Methods**	**Participants**	**Participation**	**Outcomes**
Implementation	General practice negotiated and held paper fund for 6 months followed by real fund for 6 months	GPs	Cooperation	Pressures on time and delays in provision of computing technology resulted in reduction from 'before' 1-year shadow fund followed by 'after' 1-year real fund to 6-month shadow and real fundholding periods
	Prescribing data (DDD conversion formulae)		Consultation	*Prescribing (conclusions)* Reduced volume of prescribing associated with holding fund and constraints of indicative prescribing budget Fundholders may be more cautious than non-fundholders in introducing new and expensive preparations (researcher does not regard this as evidence for quality issue) Quality of prescribing maintained (increased volume of prescribing) Researchers recommend that budgets should be set on *per capita* rather than on historical basis. More sensitive measures of volume needed to identify *per capita* basis
Evaluation	Referral and hospital activity data (information collected from Health Boards)			*Referral (conclusions referring to early stages of fundholding)* Fundholding associated with significant change in pattern of use of hospital services. Downward trend in hospital activity matched by upward trend in direct access services, e.g. physiotherapy and chiropody Changes and waiting time and outcome generally favourable Development of process of setting *per capita* based allocations will be difficult
	Content of consultations Clinical care data (consultation records)			*Clinical care (conclusions)* Confirmed validity of previous study (Howie *et al.*, *Br J Gen Pract* 1991;**41**:48–51) using consultation length as best available proxy for quality of care Clinical care of patients has remained generally stable Patients with diabetes, angina and chronic bronchitis did better in relation to others when enablement and consultation length data are considered together Patients who wished to discuss social problems received longer consultations and reported higher sustained levels of satisfaction than those reporting no social problems or having problems they did not wish to discuss Some patients with psychological problems had short consultations and were less able to cope/understand their illness
	Administrative data (opportunistic questionnaire, interviews and attendance at meetings)			*Administration (conclusions)* "The process of negotiating the nature of specialist care between practitioners and specialists has been novel, has shifted ownership of care significantly and appropriately from secondary to primary care, and has been conceptually beneficial to general practitioners and patients" (page 31) Further thought needs to be given to evolution of fundsetting both for prescribing and hospital service components of funds Improved information technology systems increasingly available

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Howie *et al.*, 1993[92]	Howie J, Heaney DJ, Maxwell M. Evaluation of the Scottish shadow fund-holding project: first results. *Health Bull* 1993;**51**:94–105 Also: Howie J, Heaney D, Maxwell M. General practice fund holding; shadow project – an evaluation: University of Edinburgh; 1995			
***Process* contd** **Phases of action research cycle/s**	**Methods**	**Participants**	**Participation**	**Outcomes**
Evaluation *contd*	Perceptions of costs and benefits (use of 'critical incident' diary cards and questionnaires)	Practices, administrators, consultants		*Perception of costs and benefits (conclusions)* Patients generally very satisfied with quality of services they receive from GPs and level of satisfaction maintained over study period Perceptions of both costs and benefits higher in lead doctors than other doctors; fund managers perceive higher costs and benefits. Non-lead doctors perceived both costs and benefits as lower than other groups Concept of centrally funded evaluative work by independent researchers has been strength of 'shadow' experiment; project could be repeatable in future Researchers note that many positive features of fundholding innovation relate to features (ownership of decision in primary care, innovative planning, improved management skills, better information) that may be attributed to health service changes in general rather than to fundholding *Areas of success* 1. Practices positive to change and innovation 2. More aware of financial implications of their decision-making 3. Have expanded knowledge of how hospitals and NHS management operate 4. Fundholding practices able to challenge hospital sector through process of negotiating contracts on behalf of patients *Areas of difficulty* 1. Rate of change is not sustainable 2. Process for determining funds is too simplistic 3. Increased financial awareness may lead to conflict within individual doctor–patient relationships
Impacts	Fundholding has helped to drive internal market in healthcare			
Dissemination	Report, journal publications (6)			

Huby, 1997[45]	Huby G. Interpreting silence, documenting experience: an anthropological approach to the study of health service users' experience with HIV/AIDS care in Lothian, Scotland. *Soc Sci Med* 1997;**44**:1149–60			
Key details				
Thematic concern	Lack of primary care involvement would result in gaps and discontinuities in services across hospital–community interface			
Aims	To document and evaluate coordination of services for people affected by HIV in the region		**Objectives**	None specified
Target of change	Service providers (GPs)		**Change innovation**	Reflection on informal discussion paper
Location	Community			
Sampling methods	Service users were recruited through services (no further information)		**Analysis**	Analysis of statements of experience
Length of study	24 months			
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Diaries (abandoned)	Service users (HIV)	Consultation	Lack of integration of welfare rights into services of far greater concern to service users than service providers suggested
Planning	Semi-structured/ open interviews	Service users (HIV)	Co-learners	Study focus changed. Focus of concern was lack of integration of welfare rights into services
	Participant observation Informal conversations, meetings	Service providers (GPs)	Co-learners	
Implementation	Informal discussion paper about culture of service provision in particular setting circulated among relevant service providers	Service providers (GPs)	Co-learners	Reflection: GPs reflect on findings within discussion paper
Evaluation	Feedback Report	Service providers (GPs) Advisory group	Co-learners	Providers need to scrutinise themselves, their own motives and perspectives, and way in which their position in systems of surveillance conditions their understanding of persons they are trying to help (in order to understand service user experience and to apply this understanding in practice) Changing perception of 'need' among provides and funders of services may require structural changes in service system, which alter providers' daily practice and interaction with clients Academic and research arguments do not necessarily bring about structural changes needed; this issue needs to be addressed
Impacts	Part-time welfare rights post has been funded and a social work post has been unfrozen. However, welfare rights remain peripheral to medically focused system Research had some effect on changing systems of communication, e.g. reorganisation of meetings in one practice Impact on researcher: using qualitative methodology, researcher formed closer relationships with participants under study and increasingly became part of social system under study; increased validity and relevance of study			
Dissemination	Report, journal publication			

Jasper, 1994[83]	Jasper MA. A shortened common foundation programme for graduates – the students' experience of student-centred learning. *Nurse Educ Today* 1994;**14**:238–44 Also: Rolfe G. Listening to students: course evaluation as action research. *Nurse Educ Today* 1994;**14**:223–7

Key details			
Thematic concern	None specified		
Aims	To evaluate students' experience of student-centred learning	**Objectives**	None specified
Target of change	Nurse teachers/nurse students	**Change innovation**	Student-generated data (and evaluation by nurse teachers)
Location	Educational institution		
Sampling methods	No information	**Analysis**	No information
Length of study	9 months		

Process **Phases of action research cycle/s**	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	1. Large group discussions (monthly)	Nurse teachers	Collective action	Evaluated process and content of course. Changes suggested incorporated into course and re-evaluated at next meeting (no further information)
	2. Agenda for group discussions then led by students (monthly)	Nurse teachers and students	Co-learning	Students decided to form small focus groups to explore different issues; nurse teachers decided to explore deeper issues behind students' choice of subject matter
Planning	No information	Students	Co-learning	Students design own methods to explore subject of their choice
	No information	Nurse teachers	Co-learning	Nurse teachers design own methods to explore subject of their choice
Implementation	Focus groups and questionnaire	Students	Co-learning	Students generate own evaluation data
	Recorded group discussion	Students and nurse teachers	Co-learning	
	Students evaluation data			
Evaluation	No information	Students	No information	No information about students' evaluation of student data
	No information (see forthcoming publication below)	Students and nurse teachers	No method of participation identified	Student-centred learning is perceived differently by teachers and students; lack of explicit, externally-set objectives caused students anxiety; students have doubts about their ability to self-motivate sufficiently to succeed on course

Impacts	Formal identification of learning objectives and creation of work book Formalised structure of student support identified
Dissemination	Journal publication, forthcoming journal publication about evaluation methodology

Johns & Kingston, 1990[111]	Johns C, Kingston S. Implementing a philosophy of care on a children's ward using action research. *Nurs Pract* 1990;**4**:2–9			
Key details				
Thematic concern	Development and implementation of primary nursing on the ward			
Aims	None specified		**Objectives**	None specified
Target of change	Nurses		**Change innovation**	Basis ward meetings
Location	Hospital ward			
Sampling methods	Nursing sister requests assistance; no other information		**Analysis**	No information
Length of study	12 months			
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	QUALPAC assessment*	No involvement	No involvement	QUALPAC – no information
Planning	Ward meetings	Nurses	Cooperation	Developed teaching programme: ten topics for staff development identified to form basis of this programme Identification of resource people; 18 research topics identified Development of standards of care
Implementation	Staff teaching programme Changing organisation to primary nursing Resource people/file *What bugs me* book Standards of care	Nurses	Cooperation	Teaching programme struggled throughout year to become established. No evaluation of this programme was considered feasible Inability of organisation to respond to requests Resource files poorly used as staff considered they had too little time to read files *What bugs me* book – well used Monitoring of standards not well achieved
Evaluation	Meetings Diaries Field notes Summary of work presented	Nurses	Cooperation	Ward became and remains dependent on researchers (considered that project would largely collapse if researchers withdrew) Action research study imposed on nurses (unmotivated for change) Highlights issues of power and status, as nursing sister gives up her role to 'primary' nurses
Impacts	Reappraisal of action research by researchers. Issues raised by researchers as to whether this was action research project. Researchers concluded from their experience that action research is philosophy and not specific methodology			
Dissemination	Journal publication			

* *Wandelt M, Ager J. Quality of patient care scale (QUALPAC). New York: Appleton Century Crofts; 1974*

Jones, 1996[51]	Jones S. An action research investigation into the feasibility of experienced registered sick children's nurses (RSCNs) becoming children's emergency nurse practitioners (ENPs). *J Clin Nurs* 1996;**5**:13–21			
Key details				
Thematic concern	Skills of experienced RSCN could be used more appropriately in paediatric casualty department			
Aims	To examine whether role of ENP could be applied to specialist service of paediatric casualty department by extending role of experienced RSCNs (via action research)		**Objectives**	To study assessments experienced RSCNs made of patients attending children's casualty department over period of 1 month
Target of change	Nurses		**Change innovation**	None
Location	A&E department of children's hospital			
Sampling methods	Convenience sampling		**Analysis**	Qualitative/quantitative
Length of study	1 month			
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Baseline assessment: Paper exercise to see if RSCNs could see and treat patients to conclusion without reference to doctor	Nurses and doctors (senior house officers)	Cooperation	RSCNs had necessary skills to become ENPs
	Field diary kept by nurses and doctors			Intention to implement RSCN ENPs
	Study stopped incomplete			
Impacts	No impact: no change in practice. Skill mix in department and timescale of 1 academic year did not lend itself to change in practice			
Dissemination	Journal publication			

Kearney, 1998[123]	Kearney J. The realities of collaboration: an experiential paper. Paper presented at CARN Conference; London, 1998			
Key details				
Thematic concern	Research utilisation			
Aims	To explore use of research-based knowledge and practices by mental health practitioners and, in particular, mental health nurses		**Objectives**	None stated
Target of change	Mental health practitioners		**Change innovation**	Research-based protocols
Location	Four pilot sites (hospital and community): community forensic services, high-dependency ward, elderly specialist community-based unit, adult acute medical ward			
Sampling methods	No information		**Analysis**	No information
Length of study	24 months			
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	No information	No information	No information	Decision to generate two protocols in each pilot site: one staff-centred, the other client-centred
Planning	Semi-structured interviews	Staff	Consultation	Information on staff expectations and perceptions: staff viewed project as 'top down'
	Focus groups	Staff	Consultation	Development of research-based protocols: user involvement in care planning process; risk assessment of suicide; managing aggression in older people
Implementation	Project in progress			
Evaluation	Monthly meeting	Facilitators	Cooperation	Discuss action plan and any difficulties they are encountering Common interests and goals highlighted
Impacts	Project in progress			
Dissemination	Conference presentation			

Kerr & MacDonald, 1997[82]	Kerr M, MacDonald T. Project 2000 student nurses' creative approach to peer education. *Nurse Educ Today* 1997;**17**:247–54			
Key details				
Thematic concern	Student nurses observed gap in service provision concerning sexual health promotion for teenage secondary school pupils			
Objectives	1. To assess extent to which student nurses' use of interactive drama could be effective in health promotion 2. To improve students' knowledge of health promotion in relation to communication skills 3. To evaluate initiative within Project 2000 course that uses interactive drama to communicate health promotion in schools 4. To evaluate effects of involvement on student nurses			
Target of change	Nurses		**Change innovation**	Development of health promotion strategy
Location	Educational institution			
Sampling methods	No information		**Analysis**	Thematic analysis
Length of study	6 months			
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	No information	Nurses	Cooperation	Nurses observed gap in service provision concerning sexual health promotion for teenage secondary school pupils
Planning	Committee basis	Nurses, educator, health promoters	Co-learning	Interactive drama selected
Implementation	Nurses' preparation for initiative: workshops, lectures and attended live theatre performance	Nurses	Co-learning	Nurses developed play, *Debbie* (sexual health education)
	Perform pilot study (workshops and drama)	Nurses, teenage children	Cooperation	Suggestions made by teenagers incorporated
	Drama *Debbie* performed for 48 pupils	Nurses, teenage children	Cooperation	
Evaluation	Pre/post questionnaire; video; focus group at 6 months post performance	Nurses	Co-learning	Nurses perceived personal and professional benefits: sense of belonging, independence, openness, less inhibition, knowledge, improved communication skills, confidence, raised self-esteem, ability to educate people Observed nurses' skills: listening, clarifying, reflecting, sharing ideas, thoughts and feelings, use of open and closed questions, working as group
	Evaluation form	Teenage children	Consultation	No information
Impacts	Claims that initiative had educative and empowering effect (focus group at 6 months indicates nurses had self-confidence, increased ability to give information, organisational skills) Changes in attitude towards health education within educational institution Initiative now recognised as part of students' curricular activities (2 years later)			
Dissemination	Journal publication			

Kinmonth *et al.*, 1996[103]	Kinmonth A, Spiegal N, Woodcock A. Developing a training programme in patient-centred consulting for evaluation in a randomised controlled trial; diabetes care from diagnosis in British primary care. *Patient Educ Counselling* 1996;**29**:75–86			
Key details				
Thematic concern	To enable practitioners to offer more relevant advice to patients and be more understanding of responses of patients to advice			
Aims	To develop a feasible/theoretically based training programme in patient-centred consulting, for evaluation in an RCT of diabetes care from diagnosis		**Objectives**	None specified
Target of change	Nurses, GPs		**Change innovation**	Training programme
Location	21 GP practices in trial			
Sampling methods	Randomised sample		**Analysis**	No information
Length of study				
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Researchers' experience Literature review	No information	No information	
Planning	Observation (taped) of 12 consultations with GPs/nurses	Practice nurses, GPs	Cooperation	Pilot training programme of patient-centred care developed
Implementation	Pilot training programme	Practice nurses, GPs	Cooperation	
Evaluation	Feedback	Practice nurses, GPs	Cooperation	Trainer continued to develop details of training programme as result of requests by participants during subsequent training sessions
Implementation	Modified training programme	Practice nurses, GPs	Cooperation	
Evaluation	Post-training session questionnaire	Practice nurses, GPs	Consultation	Developed well-defined, feasible, empirically- and theoretically-based intervention to enable patient-centred consulting by primary care practitioners
	6-monthly follow-up sessions for practice nurses over following year	Practice nurses	Cooperation	Training programme rated highly by participating GPs and nurses Key issues in programme of patient-centred care were: time constraints; consulting skills; 'giving up' responsibility of telling patient everything; tolerating anxiety of 'letting go' and trusting patients' thinking Developing training programmes in participation with primary care team ensures relevance and feasibility Regular review of progress and reflection on clinical experience is powerful tool in developing and maintaining new skills Practitioners and patients introduced to patient-centred methods during their initial training may feel less discomfort at learning 'new tricks' than study group
Impacts	Practitioners implementing approach in practice Plans to evaluate impact on patients in an RCT			
Dissemination	Journal publication			

Knight *et al.*, 1997[77]	Ayer S, Knight S, Joyce L, Nightingale V. Practice-led education and development project: developing styles in clinical supervision. *Nurse Educ Today* 1997;**17**:347–58 Also: Knight S, Ayer S, Joyce L, Nightingale V. Defining a model for team leader development. *Nurse Educ Today* 1996;**16**:309–15			
Key details				
Thematic concern	F-grade nurses need to uptake new primary role in clinical practice; possible reluctance to do so			
Aims	To pilot and evaluate an approach to clinical leadership (reflectivity and clinical supervision)		**Objectives**	None specified
Target of change	F-grade nurses		**Change innovation**	Educational programme, clinical supervision, reflection
Location	Hospital		**Mode of particpation**	Consultation
Sampling methods	No information		**Analysis**	Content analysis
Length of study	12 months			
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	No information	No information	No information	Training needs assessment (TNA) tool developed
Planning	Workshop	F-grade nurses; charge nurses	Compliance	Course participants selected Aims of project and TNA tool explained. Tool successfully used Nurse's initial anxieties about action research project overcome
	Group work	F-grade nurses	Consultation	Content of educational course identified and developed
Implementation	Five 2-day study sessions	F-grade nurses	Compliance	F-grade nurses undertook educational course
Evaluation	Session evaluation questionnaire Observation Informal feedback	F-grade nurses	Consultation	Educational course not considered enough to bring about role adoption
Planning	No information	Researchers, nurse teachers	None apparent	Clinical supervision selected Nurses select clinical supervisor and contract developed
Implementation	Clinical supervision implemented	Nurses, practice development nurses	Compliance/ cooperation	
Evaluation	Questionnaires In-depth interviews	Nurses, practice development nurses	Consultation	Clarification of F-grade nurses' role Networking and exchange of ideas Nurses increased self-motivation and enthusiasm; improved performance in new role Building professional relationships Contribution to knowledge about clinical supervision process Recommendations made for clinical supervision
Impacts	Promotion of supervision culture in unit, participants experiment with peer group supervision			
Dissemination	Publication			

Lee, 1996[43]	Lee B. An action research study of the training and development needs of registered nurses becoming clinical supervisors [MSc thesis]. Bristol: University of Bristol; 1996			
Key details				
Thematic concern	Nurses appeared to be adopting as their own, models and ideas of supervision from other disciplines. Lack of access to organised or recognised training (clinical supervision)			
Aims	To describe developmental and training needs of registered nurses to become clinical supervisors		**Research questions**	1. How do nurses become clinical supervisors? 2. What are their needs? 3. What interventions/activities/events/experiences help to meet those needs? 4. How can we tell a need has been met? 5. What role do I and group play in process of development?
Target of change	Nurses		**Change innovation**	Reflection
Location	Hospital ward			
Sampling methods	An expressed interest by staff at location to participate in study Opportunities for nurses to practice clinical supervision during study		**Analysis**	No information
Length of study	9 months			
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Literature search	Researcher	No participation	Decide on questions and research method
Planning	No formal plan	No information	No information	No formal plan
Implementation	Group sessions: reflection imagery models of clinical supervision Reflective diaries	Nurses	Co-learning	Nurses gained support, entered constructive dialogue and made plans to begin supervision Performing clinical supervision appeared seemed to give nurses confidence to continue and learn more Development of personal models of clinical supervision: group developed sense of own working models reflecting own individual characteristics, values and needs, and role of each group member Support: a range of experiences of support for group from group, their own supervision
Evaluation	Reflection Thematic analysis	Researcher Nurses	Co-learning	Author claims that: nursing and nurses should be more cautious of adopting knowledge from other disciplines; presence or absence of support can be the one factor that can determine success or failure of development of clinical supervisor; building confidence very important; study supports arguments that training courses are not answer to development of clinical supervisors Author makes following recommendation to those undertaking clinical supervision: be part of facilitated group, get to know terrain (past experience, literature), listen to experience of others, examine motive and reason for wanting to become clinical supervisor, ensure system of support, provide learning forum, ensure appropriate facilitation of learning process, ensure sources of new information exist for supervisor to draw on
Impacts	None made explicit in the written report			
Dissemination	Report			

Manley, 1997[102]	Manley K. A conceptual framework for advanced practice: an action research project operationalising an advanced practitioner/consultant nurse role. *J Clin Nurs* 1997;**6**:179–90			
Key details				
Thematic concern	Through values clarification, ITU staff identified need for advanced practice type post; the evaluation of such a post			
Research question	How does advanced practitioner consultant nurse facilitate development of nurses and nursing to provide quality service?		**Objectives**	None specified
Target of change	Nursing practice		**Change innovation**	Advanced practitioner 'type' role
Location	Hospital (ITU)			
Sampling methods	Nurses from one unit		**Analysis**	Thematic analysis
Length of study	36 months			
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Two values-clarification exercises	Nurses	Co-learning	Staff development, education, research, practice development and quality assurance identified as priority areas for practice development. Staff requested assistance to achieve these: new advanced nurse-consultant practitioner selected
Planning	Literature – Hamric's (1989)* model of advanced practice	Nurses, researcher	Co-learning	Hamric's (1989) model of advanced practice selected as basis for new role
Implementation	Researcher undertook new advanced practitioner 'type' role	Nurses, researcher	Co-learning	
Evaluation	Focus groups Work diaries	Nurses Researcher	Co-learning	Preliminary analysis produced conceptual framework for advanced practitioner/consultant role: framework relevant to British context (original model from USA); 'transformational leadership' highlighted as central to skills of advanced practioner/consultant nurse; three prerequisites identified to enable role – shared beliefs and values, open non-hierarchical unit and management, organisational authority attributed to post Claims that outcomes of conceptual framework for advanced practice met: developed and empowered staff; development of nursing practice; transformational culture Suggests preparation for advanced practitioner/consultant may require research experience at Masters/PhD level Suggests accreditation should involve those affected by outcomes, i.e. practitioners, organisations, patients and families
Impacts	None identified in paper			
Dissemination	Journal publication			

* *Hamric A. A model for CNS evaluation. In: Hamric A, Spross J, editors. The clinical nurse-specialist in theory and practice. Philadelphia: WB Saunders; 1989. p. 83–104*

Marrow *et al.*, 1997[107] Marrow CE, MacCauley DM, Crumbie A. Promoting reflective practice through structured clinical supervision. *J Nurs Manage* 1997;**5**:77–82

Key details

Thematic concern	In January 1995, in line with Government policy at that time, a proposal was forwarded to North West Region outlining R&D strategy within Morecambe Bay Health Authority, predominantly in Furness Hospital Trust Preparation for study commenced in spring of 1995 after sum of money was granted by region; research actually began in July 1995		
Aims	Research primarily concerned with effective implementation of clinical supervision and how this is received by practitioners involved (Aims were identified by research participants at preparatory workshops)	**Research questions**	1. Is there evidence of increase in practitioner's knowledge and understanding of practice and supervision issues through process of clinical supervision? 2. If there is such evidence (question 1), how is this demonstrated? (e.g. by improvement in problem-solving skills; increase in both confidence and competence; evidence of advance in theoretical knowledge and application to practice; promotion of research awareness and utilisation of research findings in practice)
Target of change	Nurses	**Change innovation**	Clinical supervision, reflection
Location	Hospital and community		
Sampling methods	Nurses volunteered	**Analysis**	Qualitative
Length of study	No information		

Process

Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	No information	No information	No information	No information
Planning	Three 1-day workshops devised; main aims were to debate supervision issues and create both a workable protocol for action and reflective diaries to aid supervision	Nursing volunteers	Co-learning	Created protocol for action and reflective diaries to aid supervision Workshop volunteers requested to take part in research project as supervisors; a sample of ten supervisors established (later reduced to eight)
Implementation	Reflective diaries: Supervisor's diary – based on Heron's counselling intervention model (Heron, 1990)*; supervisors to note and analyse their supervisory skills Diaries of those supervised utilised critical incident framework	Supervisor, those supervised	Co-learning	Practitioner systematically records clinical experiences (diary) and analyses them with supervisor Development of practitioners' skills at reflective practice (interviewing style became more facilitative than controlling)

* *Heron J. Helping the client: a creative practical guide. London: Sage; 1990*

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contd				
Marrow *et al.*, 1997[107]	Marrow CE, MacCauley DM, Crumbie A. Promoting reflective practice through structured clinical supervision. *J Nurs Manage* 1997;**5**:77–82			
***Process* contd** **Phases of action research cycle/s**	**Methods**	**Participants**	**Participation**	**Outcomes**
Evaluation	Structured interviews utilising repertory grid technique Focused discussion groups (monthly for supervisors and bi-monthly for those supervised)	Supervisor, those supervised	Co-learning	Common theme between sessions was that discussions helped to create some logical order to thoughts and feelings Supervisor and supervised explored and analysed their experiences of clinical supervision. To date, their discussions indicate positive outcomes from this clinical support mechanism and improvements in professional developments have been noted
Impacts	None apparent; ongoing study			
Dissemination	Journal publication, conference presentation			

Mason, 1993[95]	Mason T. Seclusion as a cultural practice in a special hospital. *Educ Action Res* 1993;**1**:411–23			
Key details				
Thematic concern	Reasons given for use of seclusion for forensic psychiatric patient are propounded on therapeutic basis, rather than as result of true reflection on underlying value systems that drive our actions on both personal and professional level. It is often easier to state that an action is for patient's benefit although real benefit is for ourselves			
Aims	To create change in working practice by inviting initiators of seclusion regime to reflect on their practice, and establish whether they consider their decision making to be matter of routine rather than arising from consideration of practices		**Objectives**	None specified
Target of change	Nurses		**Change innovation**	Written accounts of group meetings (reflective practice)
Location	Special hospital			
Sampling methods	Requested nurses with power to initiate seclusion to volunteer		**Analysis**	Thematic analysis
Length of study	36 months			
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	No information	No information	No information	No information
Planning	No information	No information	No information	Aim for change in practice through reflection.
Implementation	Group meetings: present written account and transcripts of group meetings; feedback	Nurses	Cooperation	Reflective practice (nurses) Researcher prepares written account/transcript following each group meeting
Evaluation	Thematic analysis Feedback	Nurses	Cooperation	External pressures to alter seclusion practice perceived by nursing staff as emanating from negative perceptions, not only of seclusion practice but also of special hospital system itself Response to this appears to be to argue that seclusion is clinical intervention and necessary for patients themselves Surface debate on seclusion has second level meaning, which involves code of' control References to 'dangerousness' of patients appear as supporting rationale for practices Mechanism for perpetuating practices is historically determined value system forming macho culture
Impacts	Ongoing study at time of writing; no impact noted			
Dissemination	Journal publication			

McElroy *et al.*, 1995[99]	McElroy A, Corben V, McLeish K. Developing care plan documentation: an action research project. *J Nurs Manage* 1995;**3**:193–9				
Key details					
Thematic concern	Audit report suggested that care planning not carried out to acceptable standard. Particular areas of concern included identification of problems and documentation of progress and evaluation				
Aims	To develop skills in relation to care planning prior to introduction of computerisation			**Objectives**	
Target of change	Nurses			**Change innovation**	New documentation
Location	Hospital				
Sampling methods	Wards volunteered			**Analysis**	No information
Length of study	No information				
Process					
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**	
Information gathering	Literature Unstructured interviews	Nurses	Consultation	Little understanding of care planning and much criticism of current documentation	
Planning	Questionnaires Study day	Nurses Managers	Co-learning	Two pilot wards write own action plans, one ward designing short-stay and other long-stay documentation	
Implementation	Piloted documentation on six wards Workshops	Nurses, nurse teachers	Cooperation		
Evaluation	Pre-document questionnaires	Nurses	Cooperation	Initial questionnaire suggested no common understanding of care plan documentation Some nominees stated that their assessment and care planning skills improved during study	
	Audit	No information	No participation	Shortcomings remained in documentation of care planning	
	Ward sisters' focus groups	Ward sisters	Cooperation	Documentation developed by clinical colleagues did not automatically ensure ownership Should be degree of commonality in documentation across site but allowing flexibility for local modification	
	Mid-term review			Need to agree criteria for document design and all aspects of care planning	
Impacts	Ongoing forum, facilitated by nurse teachers, established for discussion of issues relating to care planning process and documentation Care plan development group set up to agree criteria, monitor future developments and act as resource				
Dissemination	Journal publication				

McKenna *et al.*, 1995[46,47]	McKenna HP, Parahoo KA, Boore JP. The evaluation of a nursing model for long-stay psychiatric patient care. Part 1 – literature review and methodology. *Int J Nurs Studies* 1995;**32**:79–94 McKenna HP, Parahoo KA, Boore JP. The evaluation of a nursing model for long-stay psychiatric patient care. Part 2 – presentation and discussion of findings. *Int J Nurs Studies* 1995;**32**:95–113 Also: McKenna H. The effects of nursing models on quality of care. *Nurs Times* 1993;**89**(33):43–6

Key details

Thematic concern	No information		
Aims	To test two null hypotheses: (i) to compare changes in dependant variables scores **between** experimental ward X and control ward Y (ii) to compare changes in dependant variables scores **within** experimental ward X and control ward Y	**Objectives**	None stated
Target of change	Nurses	**Change innovation**	Human needs model
Location	Hospital: two psychiatric wards		
Sampling methods	Hospital and ward X chosen by random selection	**Analysis**	Mann Whitney *U* test (independent samples) Wilcoxon matching pairs rank test
Length of study			

Process

Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	No information	Ward managers	No information	Selection of nursing model (human needs model) for long-stay psychiatric patients Baseline data wards X and Y
	Pre-intervention phase: *Structure*: ward monitor, ward atmosphere scale, Armitage assessment instrument *Process*: patient monitor and care plan goals *Outcome*: patient satisfaction scale, attitude towards models questionnaire, patient dependency scale, NOSIE 30, nurse satisfaction, drug prescribing	Researcher	Consultation	*Structure*: no significant difference between wards X and Y *Process*: no significant difference between wards X and Y *Outcome*: No significant difference between wards X and Y
	Pilot study in adjacent ward	No information	No information	
	Lippitt's planned change theory: current practices examined; in-depth assessment for motivation to change	No information	No information	

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McKenna *et al.*, 1995[46,47]	McKenna HP, Parahoo KA, Boore JP. The evaluation of a nursing model for long-stay psychiatric patient care. Part 1 – literature review and methodology. *Int J Nurs Studies* 1995;**32**:79–94 McKenna HP, Parahoo KA, Boore JP. The evaluation of a nursing model for long-stay psychiatric patient care. Part 2 – presentation and discussion of findings. *Int J Nurs Studies* 1995;**32**:95–113 Also: McKenna H. The effects of nursing models on quality of care. *Nurs Times* 1993;**89**(33):43–6			
***Process* contd** **Phases of action research cycle/s**	**Methods**	**Participants**	**Participation**	**Outcomes**
Planning	Formal and informal teaching sessions (human needs model)	Ward staff	Cooperation	Initiate a 'felt need' for change Nurses considered transition would be easier if collaborative approach to change adopted Design 5-page assessment document and care-plan documentation for introduction of human needs plan in Ward X
Implementation	External facilitation: informal teaching sessions, meetings Internal facilitation	Researchers/ ward staff Ward sisters/ ward staff	Cooperation	Move from external facilitation to internal ownership and control (patient and ward staff) and termination with external change agent
Evaluation	Interim post-test 1 and 2: quality care indicators *Structure*: ward monitor, ward atmosphere scale, Armitage assessment instrument *Process*: patient monitor and care plan goals *Outcomes*: patient satisfaction scale, attitude towards models questionnaire, patient dependency scale, NOSIE.30, nurse satisfaction, drug prescribing	No information	No information	*Structure*: significantly improved structure in ward X compared with ward Y *Process*: significant improvement in care processes in ward X compared with ward Y *Outcomes*: significant improvement in ward X compared with ward Y (patient satisfaction scale, attitude towards models questionnaire, patient dependency scale); improvement (not significant) in nurse satisfaction and NOSIE.30 in ward X compared with Ward Y; no significant difference between wards X and Y in prescribing of psychotropic medication Researcher considers that use of action research approach: led to increase in research-mindedness among staff enriched personal and professional development of all those involved
Impacts	Ward X staff took up new nursing model (ward X no longer dependent on researcher's presence)			
Dissemination	Journal publications			

Meyer, 1993;[54,112] 1995[21]	Meyer J. Lay participation in care: a challenge for multidisciplinary teamwork. *J Interprof Care* 1993;**7**:57–66 Meyer JE. New paradigm research in practice: the trials and tribulations of action research. *J Adv Nurs* 1993;**18**:1066–72 Meyer J. Stages in the process: a personal account. *Nurse Res* 1995;**2**:24–37

Key details

Thematic concern	Lay participation in care		
Aims	To foster change in practice that would involve patients and their family/ friends in care in hospital with view to better preparation for discharge	**Objectives**	None specified
Target of change	Nurses, paramedical staff, medical staff	**Change innovation**	Multidisciplinary meetings
Location	Hospital: one ward	**Mode of participation**	Cooperation
Sampling methods	Voluntary participation	**Analysis**	No information
Length of study	12 months		

Process

Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Literature review/ personal observation Participant observation field notes Measures of ward learning environment, nursing process and quality of nursing care	Not apparent	No apparent involvement	Little evidence of 'lay participation in care' occurring on ward
	Interviews Patient and family participating in nursing care scale	Nurses, paramedical staff, medical staff	Consultation	Staff had little idea of concept of 'lay participation in care' Staff had serious reservations about applying it to their situation Lay participation seen as an idealist concept
Planning	Discussion		Cooperation	Staff make suggestions for: protocol for 'lay participation in care'; medicine reminder card; primary nursing
Implementation	Multidisciplinary meetings Protocol for 'lay participation' Medicine reminder card Primary nursing	Nurses, paramedical staff, medical staff	Cooperation	Enhanced multidisciplinary communication No information about protocol Medicine reminder card developed but not implemented by staff Increased individualised patient care but primary nursing not implemented
Evaluation	Field notes Interviews	Nurses, paramedical staff, medical staff	Consultation	'Lay participation in care' not implemented: reluctance/inability of staff to change; inhibitors of change identified Improvement in ward learning environment More positive professional attitudes towards 'lay participation in care' NB: Measures of ward learning environment, nursing process and quality of nursing care detected very little change

Impacts	Staff member gained funding to continue with research into 'lay participation in care'
Dissemination	Thesis, journal publications, conference presentations

Newton, 1995[89]	Newton CA. Action research: application in practice. *Nurse Res* 1995;**2**(3):60–71			
Key details				
Thematic concern				
Aims	To describe, monitor, develop and evaluate introduction of information technology in its own setting		**Objectives**	None stated
Target of change	Nurses		**Change innovation**	Information technology
Location	Hospital (16 wards)			
Sampling methods	Selected on basis of nurses' availability and keenness		**Analysis**	No information
Length of study				
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	No information	Management	No participation of nurses	
Planning	No information Questionnaires (to determine attitudes about innovation and nursing process)	Nurses, educators, R&D department All nurses (16 wards)	Consultation	Group decided to use Roper, Logan and Tierney model of nursing and to create three different means of access to care plans Care plans written for over 700 problems
Implementation	Training for new system provided by nurses (trained by hospital information system team, who provided 24-hour technical support (4 weeks after system activated/wards)) R&D provided professional support (indefinite period)	Wards nurses/ external consultants	Cooperation	Care planning system introduced at monthly intervals over 6 months (3 or 4 wards per month)
Evaluation	Questionnaires repeated (3 months post-implementation) Interviews (3 months post-implementation) Questionnaires (1 year) about effects of technology on practice, perceptions of system and support Audit of care plans	Nurses – 16 wards Nurses – 2 wards Nurses – 16 wards	Consultation	Questionnaire and interviews: many nurses viewed new care plans as criticism of current practice few perceived any benefit for themselves or patients far from increasing productivity, nurses considered it had added an intolerable burden to workload Audit of care plans: system was inflexible, time-consuming, reduced time available to spend with patients, increased workload and need for more nurses, decreased patient individuality and diminished nurses' autonomy

continued

contd **Newton, 1995**[89]	Newton CA. Action research: application in practice. *Nurse Res* 1995;**2**(3):60–71			
***Process* contd** **Phases of action research cycle/s**	**Methods**	**Participants**	**Participation**	**Outcomes**
Planning	Assume as for planning above	Assume as for planning above	Consultation	Three nurses from R&D learnt to programme computer system Entire care planning system re-coded Development of more functional pressure area risk-assessment tool
Implementation	Revised computerised system	Nurses	Cooperation	
Evaluation	Nursing records (examined before, and 3 months and 1 year post-implementation): hospital quality assurance tool; developed audit tool	No information	Consultation	*At 3 months*: significant increases in number of assessments and care plans made and significant improvement in quality of documenting assessment, care planning and evaluation *At 1 year*: significant improvements in quality of assessment and care-planning documentation maintained, although poor use of some aspects of system persisted Subsequent audits showed further significant improvements Findings generated knowledge about: the way nurses interpreted and applied nursing process (poorly); value they placed on documentation (unnecessary adjuncts to practice); infrequency of model-based care planning; the fact that staff shortages are not necessarily associated with poor use of care plans Findings enhanced Toffier's and Caputo's propositions that power would shift to those with technological skills, and change and innovation theories proposed by Lewin and Kjerniff (refer to paper for references)
Impacts	No information			
Dissemination	Journal publication			

Nicoll & Butler, 1996[60]	Nicoll L, Butler M. The study of biology as a cause of anxiety in student nurses undertaking the common foundation programme. *J Adv Nurs* 1996;**24**:615–24			
Key details				
Thematic concern	Biology as a subject identified as cause of anxiety among student nurses on common foundation programme (verbally and written course evaluations)			
Aims	To identify major causes of anxiety and identify methods of reducing this anxiety in present students, as well as minimising anxiety in those students commencing their nurse education			
Research questions	1. What are major causes of anxiety of student nurses studying biology in common foundation programme at our college? 2. How can information gained help identify methods of reducing anxiety in present students as well as minimising anxiety in students commencing nurse education?			
Target of change	Nursing education		**Change innovation**	Student quality circles group
Location	College of nursing and midwifery in South of England		**Mode of particpation**	Consultation/collective action
Sampling methods	Voluntary		**Analysis**	No information
Length of study	No information			
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Delphi technique	Nurse students (n = 66)	Consultation	Causes of student anxiety: time, available resources, teaching and learning, student preparation, and curriculum planning
Planning	Modified quality circle	Nurse students (n = 10)	Consultation	Students presented their problem-solving suggestions to biology teachers
	Biology subgroups	Nurse teachers	Collective action	Nurse teachers considered students' recommendations. Proposals constructed and taken to relevant meetings and committees for consideration and modification
Implementation	Students' concerns addressed	Nurse teachers	Collective action	Changes *Time*: extra voluntary sessions and timetabling of biology in morning *Resources*: booklists where compiled by teachers *Student preparation*: pre-reading and teacher availability list *Teaching and learning*: nurse teachers with science degrees undertook this role in place of biology lecturers; some attended in-service training in lecture techniques and became involved in peer review *Curriculum planning*: new biology timetable made available to students
Evaluation	Focus group	Nurse students (n = 7)	Consultation	*Evaluation of changes* Consensus that there would always be anxiety in learning of biology Considered that changes made could reduce anxiety *Researchers' perception of the action research approach* Greater understanding between teachers and students during research, especially during quality circle group Mutual awareness of underlying problems in learning and teaching of biology, organisation of course and anxieties that interfere with learning process
Impacts	Alterations to teaching of biology in nursing school			
Dissemination	Journal publication			

O'Sullivan, 1996[144]	O'Sullivan S. Changing nursing practice for more effective handover; an action research study [MSc thesis abstract]. London: Institute of Advanced Education, Royal College of Nursing; 1996			
Key details				
Thematic concern	No information			
Aims	To improve quality of hand-over and possibly to reduce amount of time taken		**Objectives**	None stated
Target of change	Nurses		**Change innovation**	No information
Location	Hospital		**Mode of participation**	Co-learning
Sampling methods	No information		**Analysis**	No information
Length of study	No information			
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Modified quality circle exercise Semi-structured, open-ended interviews Observation of hand-over Quantitative measures	Nurses	Consultation	Topic was selected Focused around issues relating to purpose of hand-over, concerns about hand-over, what makes a good hand-over, suggestions for improving hand-over. Issues raised were codified into categories and then themes; these formed basis of action plans. This phase also assisted in value clarification for all concerned
Planning	Group discussion	Nurses	Cooperation	Developed action cycles to address issues relating to quality, education and time Exploration of issues, sharing strategies and experiences, generating new ideas, solutions, addressing concerns arising Audit tools developed
Implementation	Observation of hand-over Quantitative measures	Nurses	Cooperation	Structural changes to hand-over
Evaluation	Group discussion Individual interviews Audit tools	Nurses	Co-learning Consultation No participation	Main findings demonstrate reduction in time consumed by hand-over at outset of study compared with during interventions Evaluation interviews indicate improved quality of hand-over with agreed relevant information being imparted in systematic manner *Author comments* Findings have direct significance for patient care, releasing nurses to conduct other activities, along with cost-effective savings, while offering more effective and efficient tool for communication Study has implications for co-researchers who readily responded to opportunity to address clinical problem and reflect on past and present practices
Impacts	Co-researchers have identified direction they wish to pursue, which involves extension of original review dates and future auditing of changes			
Dissemination	No information			

Owen, 1993[101]	Owen S. Identifying a role for the nurse teacher in the clinical area. *J Adv Nurs* 1993;**18**:816–25				
Key details					
Thematic concern	Nurse teachers struggling to identify role for themselves in clinical area and evidence suggests that role of teacher in clinical area is ineffective in present form				
Aims	To identify model for nurse teacher to develop multi-dimensional role in clinical area to replace traditional one			**Objectives**	
Target of change	Nurses			**Change innovation**	Teaching programme
Location	Hospital (one psychiatric ward)				
Sampling methods	Invited a ward to volunteer to participate (during meetings with managers, ward sisters)			**Analysis**	No information
Length of study					
Process					
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**	
Information gathering	Situational analysis	No information		Strengths and weakness of attitudes towards teaching identified	
	Rating questionnaire (Fretwell, 1985)*	Nurses	Consultation	Strengths: ward staff motivated, supportive and aware that improvements in existing learning environment needed	
	Fieldwork journal	No information		Weaknesses: shortage of trained staff, structured supervision of students rarely occurs and opportunities for ward-based teaching sessions not taken; trained staff had poor understanding of nursing process and primary nursing and little experience of teaching methods and research-based practice; self-esteem of nurses was low; workload interferes with teaching	
Planning	Discussion of findings	All nursing staff	Cooperation	Developed two action plans: 1. To develop charge nurses' teaching role 2. To improve existing learning environment; teaching programme content decided by nominal group technique in first session	
Implementation	Teaching programme	Nursing staff	Cooperation		
	Ward-based sessions with students	Charge nurse/ students	Cooperation		

* *Fretwell JE. Freedom to change. London: Royal College of Nursing; 1985*

continued

contd				
Owen, 1993[101]	Owen S. Identifying a role for the nurse teacher in the clinical area. *J Adv Nurs* 1993;**18**:816–25			
***Process* contd**				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Evaluation	Rating questionnaire (Fretwell, 1985)*	Nurses	Consultation	Author claims that although outcome evaluation suggests that action plans were not complete failure, changes which occurred were small Teaching programme: no significant improvement in ward learning environment on completion of teaching course Ward-based teaching sessions (ward manager): evaluation not completed; ward manager handed teaching over to charge nurse saying teaching too demanding on time. Time constraints of project did not allow for second implementation/evaluation with charge nurse 3 months after project's completion: staff teaching sessions continued and student teaching improved; some comments that difficult to keep initiative going; charge nurse performing teaching role with some difficulty (lack of time and support) Model proposed for nurse teacher working in clinical area on basis of evaluation; three elements of model are teacher as researcher, teacher and change catalyst
Impacts	On presentation of final results, one staff nurse volunteered to carry on process and coordinate next teaching programme			
Dissemination	Journal publication			

Pearcey & Draper, 1996[106]	Pearcey P, Draper P. Using the diffusion of innovation model to influence practice: a case study. *J Adv Nurs* 1996;**23**:714–21

Key details			
Thematic concern	Facilitation of the utilisation of research findings in practice		
Aims	Purpose of exploratory study was to identify factors associated with non-utilisation and facilitation of research findings in hospital ward	**Objectives**	No information
Target of change	Nurses	**Change innovation**	Pre-operative protocol, research folder
Location	Hospital (one acute ward)	**Mode of participation**	Consultation
Sampling methods	Ward volunteered (following discussions with managers)	**Analysis**	No information
Length of study	No information		

Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	No information Semi-structured interviews, field notes, informal discussion (11 visits to hospital ward)	Six nurses Student nurses	Consultation	*Prior conditions* Previous practice: pre-operative information-giving inconsistent, with no identified rationale behind it Felt needs: a preoperative information-giving protocol could benefit patients Innovations: idea of developing protocol based on research findings was new *Characteristics of ward* Norms of social system: assumption that student nurses were taught information-giving at training school Socio-economic characteristics: lack of time for information-giving, reading, research Personality variables: senior staff more positive towards change than junior staff
	Discussion	Charge nurses	Consultation	*Perceived characteristic of innovation* (pre-operative information protocol) Relative advantage: protocol would optimise practice Compatibility: protocol seen as building on and assessing existing practice Complexity: innovation not regarded as complex Trialability: staff would try innovation and reject it if not useful
Planning	Informal discussions by researcher once per week Folder of research articles Semi-structured interviews	Nurses	Consultation	Pre-operative protocol to be written by ward sisters using folder of research articles
Implementation	Folder of research articles Staff to write protocol	Charge nurses	Cooperation	When ward contacted 3 months later, innovation had been rejected. No protocol written
Evaluation	None			Project stopped uncompleted. Authors suggest that increased contact via clinical nurse specialist/practice development nurse would help to carry out innovation through support and encouragement of ward staff. Authors considered that innovation was not prime aim of study. Emphasis was more on 'utilisation' than implementation of research findings. Awareness of need for research-based information and of inconsistency in current practice seemed more significant than implementation of tangible, written protocol. Authors suggest it may be useful for managers within their own hospital or unit to survey staff in order to identify a framework of problems or factors affecting use of research findings

Impacts	None identified
Dissemination	Journal publication

Phillips et *al.*, 1998[70]	Phillips N, Myhill D, Thurtle V. Laurel Centre interim report. Ipswich: Allington NHS Trust; 1998			
Key details				
Thematic concern	Staff considered they were not delivering coordinated packages of care for children with special needs in their own communities			
Objectives	1. To establish children's resource centre within market town for children with special needs, focusing on multi-agency approach in both assessment and provision of services 2. To develop multi-agency standards, procedures for referral, care management, training, audit and records 3. To evaluate model of care that was seamless, coordinated and appropriate to needs of children and their families in rural Suffolk			
Target of change	Service provision		**Change innovation**	Children's Resource Centre (Laurel Centre)
Location	Community			
Sampling methods	No information		**Analysis**	Descriptive statistics and thematic analysis
Length of study	24 months			
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	No information	No information	No information	No information
Planning	Reflection	Steering group Parent comments	Cooperation	Steering group established (representatives of education, social services, voluntary sector and parents)
	Consensus basis Multidisciplinary training and development sessions	No information	Collective action	Terms of reference agreed (see appendix 1 of report) Premises acquired and refurbished by April 1996 Core team established Criteria for admission established
Implementation	Inception of service targeted for children > 3-years-old	Core team	Collective action	
Evaluation		Steering group	Consultation	Developed model of care that was appropriate for other rural areas Analysis of activity: 65% users > 3 years of age Sources of referrals: 65% primary care/GPs Presenting problems: complex difficulties (24% speech and language difficulties) Multidisciplinary and multi-agency working: variety of formal and informal links developed (education, social services, voluntary services, other health professionals) but researcher found evidence of effective multidisciplinary working more difficult to quantify
	Reflection			Reflection on action: staff positive as to value of centre
	Parental satisfaction questionnaire	Parents		Parental satisfaction questionnaire: indications that service well-received
Planning		Steering group Parents	Collective action	Final year of study will see comparison between this town and matched locality
Impacts	Staff positive in their approach to centre and wish to continue with service. The Laurel Centre also appears to be valued by trust and other childcare agencies			
Dissemination	Report			

Potter *et al.*, 1994[80]	Potter C, Morgan P, Thompson A. Continuous quality improvement in an acute hospital: a report of an action research project in three hospital departments. *Int J Health Care Qual Assur* 1994;**7**:5–29

Key details

Thematic concern			
Aims	1. To improve quality of department's services 2. To act as models, raising interest in quality among their 'clients' (other departments) 3. To have a knock-on effect throughout unit	**Objectives**	To assist department to prepares themselves for King's Fund Organisational Audit To assess effect on quality that the audit achieved
Target of change	Multidisciplinary	**Change innovation**	Intensive group sessions – quality circles
Location	Hospital (three departments: medical records, X-ray, operating theatres)		
Sampling methods	Three departments selected for consideration because of their service orientation to rest of unit	**Analysis**	No information
Length of study			

Process

Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Interviews	Senior staff	Consultation	Middle-manager overburdened by various demands and unable to gain sense of priorities; under this pressure 'quality' becomes just anther discrete task
	Questionnaire Observation	Staff and patients	Consultation	Audit viewed as another paper-based project, to be handled at senior level, resulting in little organisational change to promote quality
Planning	Intensive group sessions about quality	Department staff groups	Cooperation	Department generated ideas including: developing patient questionnaire, consultations to facilitate standard setting and development in each department, exchange visit to another hospital
Implementation	Visit to another hospital	Department staff (n = 11)	Cooperation	
Evaluation	No information/ follow-up visits	No information	No information	Visit to another hospital: success in forwarding organisational change and promoting interest; some negative effects noted Operating theatres: little progress made in staff systematically finding out clients' perspectives; medical staff a barrier to innovations Follow-up visit: communications between staff groups and other members of team involved in quality group (including medical and central surgical sterilising department staff) X-ray department: staff keen to improve quality and had many ideas but unorganised; no implementation of ideas noted Medical records department: some raising of staff consciousness towards standards; follow-up – manager reported significant improvement as result of project Authors made recommendations to improve quality of service to patients Authors concluded that bottom-up strategies, represented by DYSSSY [Dynamic Standard Setting System & Professional standards] and quality circles, and action research strategies have much more effect on staff attitudes and behaviour that top-down approach

Impacts	Quality groups continue with involvement of other staff groups
Dissemination	Journal paper

Power *et al.*, 1991[68]	Power R, Dale A, Jones S. Towards a process evaluation model for community-based initiatives aimed at preventing the spread of HIV amongst injecting drug users. *AIDS Care* 1991;3:123–35			
Key details				
Thematic concern	No information			
Aims	Primary aim: to reduce spread of HIV infection among substance misusers			
Objectives	1. To provide community-based service, distinct from those already established 2. To target drugs users not normally seen by existing agencies in district health authority: young people, women, those dependent children and drug users with no previous agency contact			
Target of change	Services		**Change innovation**	Community drugs team (CDT), outreach sessions (home visits, syringe exchange, referrals from other agencies, peripatetic outreach work)
Location	Community			
Sampling methods	No information		**Analysis**	No information
Length of study				
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Database form (Donmall *et al.*, 1989)*	No information	No information	Collected basic socio-demographic and drug information on CDT clients
	Postal surveys	Local services (including GPs)	Consultation	Established nature and demand for collaborative work with CDT
	Semi-structured, face-to-face interviews (duration of study)	Drug users (three individuals)	Consultation	Gained insight to views and demands for CDT service
Planning	No information	No information	No information	
Implementation	30 outreach sessions	CDT outreach worker	Consultation	Information and data fed back to weekly meetings: CDT able to become responsive. Data also provided picture of emerging drug trends and patterns in area (see Jones & Power, 1990†)
Evaluation	Short-term feedback: weekly Monitoring of caseload	CDT outreach worker	Consultation	Researchers able to alert CDT to new developments on local drug scene Researchers able to evaluate extent of achievement of aims and objectives: objectives – targeting younger drugs users and those with minimal previous treatment history: CDT failed objectives – targeting women and drugs users with children: CDT successful aim – to reduce spread of HIV infection among substance misusers: in order to do this, CDT needed to contact higher proportion of illicit drugs injectors

* *Donmall M, Webster A, Strang J, Tantam D. The introduction of community-based services for drug misusers: impact and outcome in the NorthWest, 1982–86. Manchester: Drugs Research Unit; 1989*

† *Jones S, Power R. Observation to intervention.* Int J Drug Policy *1990;**2**:13–16*

continued

contd				
Power *et al.*, 1991[68]	Power R, Dale A, Jones S. Towards a process evaluation model for community-based initiatives aimed at preventing the spread of HIV amongst injecting drug users. *AIDS Care* 1991;**3**:123–35			
***Process* contd** **Phases of action research cycle/s**	**Methods**	**Participants**	**Participation**	**Outcomes**
Evaluation *contd*	End of year report/ half-day feedback	CDT CDT managers	Collective action	Decisions regarding aims, objectives and strategies made from research findings: to target only illicit drugs users, with particular emphasis on injectors; to provide clear referral guidelines to avoid referrals with alcohol or prescribed drugs as main substances of abuse; to reassess peripatetic work in other agencies and to avoid duplication of existing services; to examine working practices in light of client and agency needs and demands as reported from research findings; to make face-to-face contact with all those services that expressed desire for collaborative work; to prioritise outreach work and to develop appropriate and imaginative strategies in order to contact target groups; to continue monitoring and evaluation of wide range of CDT activities
Impacts	Riverside Evaluation Project continues to use basis of model in number of contexts in its current work			
Dissemination	Journal publication			

Rolfe & Phillips, 1997[72]	Rolfe G, Phillips L. The development and evaluation of the role of an advanced nurse practitioner in dementia – an action research project. *Int J Nurs Studies* 1997;**34**:119–27 Also: Rolfe G, Phillips L. An action research project to develop and evaluate the role of an advanced nurse practitioner in dementia. *J Clin Nurs* 1995;**4**:289–93			
Key details				
Thematic concern	Confusion in literature as to role of advanced nurse practitioner			
Aims	To develop role of advanced nurse practitioner grounded in specific needs of particular service (dementia) and particular patients and carers, rather than construct role by generalising from previous research and existing theory			
Target of change	Nursing role		**Change innovation**	Advanced nurse practitioner role
Location	Community			
Sampling methods	No information		**Analysis**	Thematic analysis
Length of study	18 months			
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Five semi-structured group interviews	Healthcare practitioners, support and voluntary workers (*n* = 42)	Consultation	Anticipated role of advanced nurse practitioner Service providers' expectations (positive and negative) of advance nurse practitioner role: established baseline for evaluation
Planning	Analysis of findings from semi-structured interviews	Researchers	No information	Findings used to construct provisional job description for advanced nurse practitioner Three aspects to role: service – development, collaboration and liaison healthcare professionals – education, staff development patients and carers – outreach, early intervention, open access, autonomous practice, expert/specialist service, health education, counselling Advanced nurse practitioner came into post
Implementation	Reflection on action In-depth interviews	Advanced nurse practitioner	Co-learning	Advanced nurse practitioner evaluated and modified role in response to needs of service users Major changes to role included: abandoning base in GP practice and the open access drop-in centre; setting-up of memory group
Evaluation	Interviews Questionnaires	Patients and carers Healthcare practitioners	Consultation	Emergent advanced nurse practitioner role: of three aspects of role, working with patients and carers were most developed Benefits of advanced nurse practitioner role outweighed negative outcomes (increased workload for some colleagues) Authors consider method more generalisable than findings, and offer observations on methodology and findings that they consider may be of use to other researchers and practitioners Authors make recommendations relating to dementia services
Impacts	Setting-up advanced nurse practitioner role			
Dissemination	Journal publications, conference presentations			

Rolfe & Jackson, 1997[91]	Rolfe G, Jackson N. An action research project to develop the role of the generic health care support worker. In: Third Biannual International EuroQuon Conference on Quality and Nursing Practice: 1997; Oslo, Norway: 1997; p. 209–16 Also: Rolfe G, Jackson N, Gardner L, Jasper M, Gale A. Developing the role of the generic healthcare support worker: phase 1 of an action research study. *Int J Nurs Studies* 1999;**36**:323–34			
Key details				
Thematic concern	Reviewing skill mix of professional staff and creating multi-skilled group of support workers to best meet needs of patients			
Aims	To explore develop and evaluate role of generic healthcare support worker		**Objectives**	Phase 1: to raise awareness of concept of generic healthcare worker
Target of change	Healthcare support workers			
Change innovation	Role of generic healthcare support worker – project in progress			
Location	Hospital			
Sampling methods	Trained staff (group interviews) – purposeful sampling		**Analysis**	Content analysis
Length of study	No information			
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	No information	No information	No information	No information
Planning	11 educational programmes	Multidisciplinary (n = 20)	Consultation	Explored issues and problems likely to be encountered in establishing role of generic healthcare support worker, as well as attitudes and opinions of trained and untrained staff involved in implementation of role
	Educational programme evaluation: two semi-structured group interviews	n = 9	Consultation	Positive and negative issues described relating to following emergent themes: the challenge to professional boundaries being a generic worker outcomes for service and patients implementation of role
	Group interviews	Trained staff (n = 14)		Researchers concluded that role of generic healthcare support worker was regarded positively. Staff optimistic that role could work and project had broad support from trained and untrained staff Development of phase 2: establishment of practice development unit as framework to develop and refine role; aim is for members of clinical team to take increasing responsibility for project
Implementation	Project in progress			
Evaluation	Project in progress		Cooperation	
Impacts	Project will continue to phase 2; additional funding from Department of Health gained for phase 2			
Dissemination	Journal publication, conference presentation			

Sajiwandi [n.d.][85]	Sajiwandani J. Evaluating the English National Board course 941: nursing elderly people: an enhancement collaborative action research. English National Board; no date.			
Key details				
Thematic concern	Programme evaluation showed a theory practice gap relating to nurses learning on ENB short course 941			
Aims	1. To evaluate the impact of process model on participants learning outcomes of topics and concepts, and explore nature of their learning experience 2. To assess effectiveness of method of evaluation 3. To discuss results and implications for continuing nurse education and practice		**Objectives**	1. Test the null hypothesis: no significant difference between the medians of pre- and post-course learning outcome assessments of topics and concepts 2. Explore qualitatively nature of participants' experience when exposed to lifestyle process programme 3. Quantitative assessment of happiness/satisfaction index of participants' learning 4. Analysis of effect of participants' pledges on evaluation of process model
Target of change	Nurse education		**Change innovation**	
Location	Educational institution			
Sampling methods	Randomisation: pilot study group Convenience or accidental sample: study group		**Analysis**	Quantitative: descriptive statistics Qualitative: thematic analysis of significant statements
Length of study	No information			
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	No information	No information	No information	No information
Planning	Developed action plan to learning including 'course enhancers' Piloted pre-/post-evaluation methods	Students, facilitator and course management team Student cohort 1	Collective action Cooperation	Development of pledge process model in which lifestyle and pledge became focal point of learning and doing
Implementation	Pledge process model	Students	Co-learning	
Evaluation	Pre-/post-evaluation: happiness/satisfaction questionnaire, interviews/discussions, critical incident reports, pledges reports	Students	Cooperation/ consultation	Happiness/satisfaction questionnaire: positive responses Interviews/discussions: developed eight themes providing information on course Critical incident reports: researcher claims to have increased researchers' understanding of 'classroom experience' Pledges reports: pledges being made by students in relation to their practice Author claims that: course programme produced positive learning environment that was humanistic in nature; pledge process model encouraged participation in programmed planning of relevant topics and motivated nurses to learn; pledge process model capable of integrating theory and practice
Impacts	None identified			
Dissemination	Report			

Smith, 1986[105]	Smith G. Resistance to change in geriatric care. *Int J Nurs Studies* 1986;**23**:61–70			
Key details				
Thematic concern	No information			
Aims	"To improve the quality of life of the patients"		**Objectives**	None stated
Target of change	Nurses		**Change innovation**	No identified
Location	Hospital (geriatric ward)			
Sampling methods	No information		**Analysis**	No information
Length of study	11 months			
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	No information	No information	No information	
Planning	Meetings	Steering group	Cooperation	
Implementation	No change innovation reported	No information	No information	
Evaluation	Meetings/feedback Observation Analysis of documents	Nurses, patients, relatives	Cooperation	Factors resulting in resistance to change identified
	Individual discussions	Ward sisters	Consultation	
	Group discussions	Ward sisters, unit nursing officer	Cooperation	
Impacts	None identified			
Dissemination	Written report (presented to staff), journal publication			

Snadden *et al.*, 1996[81]	Snadden D, Thomas ML, Griffin EM, Hudson H. Portfolio-based learning and general practice vocational training. *Med Educ* 1996;**30**:148–52			
Key details				
Thematic concern	Unmet training need for GP registrars in the area of interpersonal skills and self-management			
Aims	To find out to what extent portfolio learning was useful and acceptable to trainers and GP registrars		**Objectives**	None identified
Target of change	GP trainers and registrars		**Change innovation**	Reflective practice
Location	Community			
Sampling methods	No specific information		**Analysis**	Thematic analysis
Length of study	36 months			
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	No information	No information	No information	
Planning	Educational discussion group (1990) Interactive workshop (1992) Trainers' workshop (1993)	GP trainers and GP registrars	Co-learning	1990: developed learning model using critical incident technique 1992: concept of portfolios containing reflective component discussed, documentation created and GP trainer/registrar pairs encouraged to explore ideas in creative and practical way. Four GP registrars discuss experiences: reports range from "enthusiastic to lukewarm" 1993: portfolio concept refined; two booklet produced to guide trainers/registrars in its use. Formal evaluation of reflective practice/portfolio use planned
Implementation	Reflective diaries kept as part of portfolio	GP trainers and registrars	Co-learning	Increased use of reflective diaries but some fall off during course of GP registrars' year Authors suggest this due to integration of reflective practice into everyday work or to approach of summative examinations Research process important in consistency of diary use
Evaluation	Semi-structured interviews	GP trainers and registrars (n = 20)	Co-learning	Some emergent themes (reported in paper): diaries may have potential to prevent complacency in training practice; diaries may provide mechanism to map development and provide structure to teaching and learning; increase dialogue in difficult trainer/registrar relationships; portfolio/reflective practice not suitable for everyone's learning style and valued more by GP trainers than registrars Sufficient evidence of positive effect of portfolio learning to encourage its further development Portfolios not found to be effective formal assessment mechanisms because threat of assessment influenced type of material collected Importance of action research perspective was key finding; it resulted in clarification in development of educational model
Impacts	Subsequent model for education will be attempted in another geographical region Further research into reflective practice and GP vocational training			
Dissemination	Journal publication, presentation at participant workshops and academic group meetings			

Stark, 1994[108]	Stark S. A nurse tutor's experience of personal and professional growth through action research. *J Adv Nurs* 1994;**19**:579–84			
Key details				
Thematic concern	Learning about action research process			
Aims	Increasing student participation in class room		**Objectives**	None stated
Target of change	Self-improvement (nurse tutor)		**Change innovation**	Reflection
Location	No information			
Sampling methods	Self-selection (action research as part of a course)		**Analysis**	No information
Length of study	9 months			
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Video tape of researcher and group questioning Class interaction and dialogue/self-reflection	Course participants	Co-learning	Video showed too much 'teacher talk'; researcher decided to focus on increasing student participation in classroom Researcher identified reason for her behaviour: lack of confidence and four interrelated circumstances (she perceived she lacked knowledge; she felt unprepared for class; she disliked subject; she felt rushed)
Planning	No information	No information	No information	
Implementation	"3 to 4 action steps" (page 585) (no information)	No information	No information	
Evaluation	Reflective diary	Researchers	Co-learning	Personal growth: improved confidence Professional growth: improved preparation lessened dislike of subject Researcher initiated self-reflective community in her own classroom with student nurses Attempted to improve teaching/learning with student nurses
Impacts	Change in attitude			
Dissemination	Journal publication			

Steward, 1994[104]	Steward B. Researching fieldwork practice in occupational therapy. *Educ Action Res* 1994;**2**:259–65			
Key details				
Thematic concern	Role of tutor in fieldwork practice appeared to offer little to professional development of student, supervisor or author; familiar divisions between school and placement, tutors and clinicians, theory and practice seemed unchanged			
Aims	1. To discover how clinical supervisors, students and other tutors perceived fieldwork education 2. To use this shared knowledge to initiate collaborative action planning in fieldwork education		**Objectives**	None stated
Target of change	Occupational therapy students, tutors and supervisors		**Change innovation**	No information: ongoing project
Location	Educational institution			
Sampling methods	No information		**Analysis**	Thematic analysis
Length of study	No information/ongoing project			
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Interviews (before and after field placement) Unstructured interviews Research journal (staff meeting minutes; student forums; assessment forms) Personal observation Summary of research to date given to participants	Occupational therapy students Supervisors	Cooperation	Analysis of themes: role expectations (students, supervisors, tutors) – role confusion dyadic and triadic relationships between groups – little collaboration Author identified focus for project: increased collaborative working between students, supervisors and tutors in order to avoid role confusions and develop flexible responses to student needs and unpredictable clinical situations Action planning to be undertaken with supervisors Insights to undertaking action research including: issues relating to insider/outsider position of researcher, exploitation of participants, generating controversies when change not a priority, communication and circulating data in transient participant populations, initiating change in overburdened environments
Planning				
Implementation	Ongoing project			
Evaluation				
Impacts	None identified			
Dissemination	Report summary to participants, journal publication			

Tebby, 1997[79]	Tebby B. Action research: an approach to practical problem solving in the development of a midwifery model [BSc Hons thesis]. Oxford: RCN Institute; 1997			
Key details				
Thematic concern	Midwifery teams not functioning to their full potential			
Objectives	1. To identify key deficiencies in organisation and management of midwifery teams that most likely to be impeding optimum midwifery care 2. To implement and evaluate changes that most likely to rectify those key deficiencies 3. To promote happy, fulfilled and united workforce			
Target of change	Midwives		**Change innovation/s**	Numerous
Location	Hospital/community			
Sampling methods	Invitation to participate: midwives fitting predetermined selection criteria = action research group (midwives; researcher)		**Analysis**	Thematic analysis; category saturation
Length of study				
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Series of eight meetings	Action research group	Cooperation	Meeting 1: implementation of traditional shift patterns on unit (depleted of staff) Meetings 1–7: suggestions for action: off-duty roster; time management; claim for hours worked; team meetings; cross team covers; continuity of care; parent education; audit; attitude; hand-over; bookings; team leader; team coordinator; punctuality; unrealistic expectations; acting up; orientation to community
Planning	Series of eight meetings	Action research group	Cooperation	*Off-duty roster*: produce skeleton off-duty roster for team coordinators; study new off-duty roster, report back any omissions; implement new rotation systems into unit (improve postnatal care) *Hand-over*: circulate guidelines for hand-over to all midwives; monitor hand-over and report back to next meeting *Continuity of care*: write out group's definitions of continuity of care; suggest procedure for identifying prior contact with pregnant women; write guidelines for management of home births *Claim for hours worked/time management*: implement of change in timing of shifts; summarise problems, comments and suggestions relating to off-duty periods *Audit*: computerise auditing of continuity of care; redesign form for community statistics to improve audit; set date from which to audit all care plans *Team leader*: undertake supervisory interviews with G-grade midwives to identify their training needs and build their confidence and appreciation of changes *Team meetings*: observe feedback from team coordinator's meeting *Project management*: summarise action research group's suggestions

continued

contd **Tebby, 1997**[79]	Tebby B. Action research: an approach to practical problem solving in the development of a midwifery model [BSc Hons thesis]. Oxford: RCN Institute; 1997			
Process **contd** **Phases of action research cycle/s**	**Methods**	**Participants**	**Participation**	**Outcomes**
Implementation	No information	No information		Researcher appeared to undertake most tasks
Evaluation	Over eight meetings	Action research group	Cooperation	*Off-duty roster*: duty roster well-received; late shift cover greatly improved; no team as yet rotated midwives on to unit for more that one or two shifts *Hand-over*: distributed guidelines for effective hand-over; hand-over improved but initiative hard to maintain *Continuity of care*: definitions not written; guidelines for home birth not written Claim for hours worked/time management: night and day duty argued convincingly to keep original time schedules *Audit*: systems supervisor agreed to test computerised audit of continuity of care; community statistics form redesigned *Team leader*: supervisory interview commented on *Team meetings*: midwives' team meetings took place but "pointless because they could not achieve any change" (page 28) *Project management*: summary not achieved; discussion with team coordinators on remaining suggestions for action at last meeting
	Interviews	Midwives (n = 6)	Consultation	*Claimed benefits to midwives*: catharsis; professional development; new knowledge gained from each other; focus on important aspects of care; better coping strategies; improved working patterns; better time management; knowledge of action research; midwives agreed that most significant effect was provision of adequate staffing levels in maternity unit, particularly on late shift; empowerment and emancipation of midwives; enjoyment and motivation; no significant failures identified by interviewees *Claimed benefits to the action researcher*: satisfaction at reducing stress levels; professional development; knowledge of problems and best practice; reflection on service as whole; insight to specific training needs; organisation runs more smoothly; risk management; effective use of resources; knowledge of action research; midwives practice autonomously; plan for extending benefits to more midwives; clear plan for supporting each team individually
Impacts	None specified although midwives may be continuing with initiatives – "The work of the group will be ongoing" (page 51)			
Dissemination	Journal publication, project report sent to the healthcare trust			

Titchen, 1993[109]	Titchen A. Changing nursing practice through action research. Oxford: National Institute for Nursing, Centre for Practice Development and Research; 1993

Key details

Thematic concern			
Aims	1. To help nurses on two study wards move gradually from traditional to patient-centred nursing, using work organisational method of primary nursing 2. To generate and test set of explanatory principles of action about how this help could be given 3. To generate theorised account or social theory about journey from traditional nursing to patient-centred care	**Research questions**	1. How can primary nursing be used to provide 24-hour patient-centred nursing service? 2. What are processes involved in achieving it and difficulties encountered?
Target of change	Nurses	**Change innovation**	
Location	Hospital ("medical wards")		
Sampling methods		**Analysis**	Phenomenological approach (pages 29–48); still developing this approach
Length of study	48 months		

Process

Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Workshop	Researchers	Co-learning	Located action research in interpretative and critical paradigms; decided that action research approach most appropriate
	Case study data of early changes towards patient-centred nursing, i.e. team nursing (methods: participant observation/ in-depth interviews/ review of documentation)	Sister/staff nurses	Consultation	Generated theorised account of wards' traditional practice and devised tentative principles for initiating and facilitating early changes: tentative principle – "If there is an attempt to change the power relationship between the staff nurses and the sister (by moving the cultural norm of autocratic, centralised decision making to a norm of participative, decentralised decision making), nurses are likely to experience role ambiguity, if authority is not explicitly devolved by the sister." (page 72)
	Literature/personal knowledge	Researcher/actor	Co-learning	
Planning	Two 2-day workshops	Nurses	Co-learning	Negotiated uptake of primary nurse roles with supervision
Implementation	Double-act	Researcher/actor (sister)	Co-learning	Recommend 'double act' model of working
	Collaborative groups	Sisters/staff nurses	Co-learning	Recommend 'collaborative model' of working in place of co-action researcher
	Meetings/professional development sessions	Ward nurses/researcher	No information	
	Primary nursing	Staff nurses	Cooperation	

continued

contd				
Titchen, 1993[109]	Titchen A. Changing nursing practice through action research. Oxford: National Institute for Nursing, Centre for Practice Development and Research; 1993			
***Process* contd**				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Evaluation	2-weekly recorded reflective conversation Field notes	Actor and researcher	Co-learning	"Enabled the impressionistic analysis of data, interpretation and evaluation which led to planning or revising the action and the data collection methods." (page 13) Developed and tested series of action hypotheses
	Evaluation of the work-shop: reflective diaries; conversations; participant observation; interviews; informal recorded conversations; quarterly meetings of team leaders	Ward nurses	Consultation	Role clarification (staff nurses and sister) Team leaders taking on obligations (role uptake) Flattening of hierarchy and more democratic leadership Successful transition to primary nursing (all registered nurses) Professional and personal development of nurses Empowerment of nurses – developed own action plans
Impacts	Successful transition to primary nursing Recognised value for continued review of opportunities and time out from ward to explore and resolve problems: annual workshops/away-days for whole ward have become part of ward culture Contribution to knowledge of undertaking action research Later claimed to have developed and tested three 'opportunistic' strategies for clinical supervision through action research (The art of clinical supervision. *J Clin Nurs* 1995;**4**:327–34)			
Dissemination	Journal publications (five located), project report 1992, collection of papers (report no.6, 1993)			

Waterman *et al.*, 1995[49] Waterman H, Webb C, Williams A. Changing nursing and nursing change: a dialectical analysis of an action research project. *Educ Action Res* 1995;**3**:55–70

Key details

Thematic concern	Factors linked to nurses' reticent approach to change, including context (both local and national) in which they worked		
Aims	To study factors linked to nurses' reticence to change	**Objectives**	None stated
Target of change	Nurses	**Change innovation**	Counselling skills for nurses
Location	Hospital outpatient department		
Sampling methods	Nurses volunteered to participate	**Analysis**	No information
Length of study	18 months		

Process

Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Interviews	Patients, outpatient nurses	Consultation	Perceptions about roles of outpatient nurses; development of mutual feelings of trust; introduction of idea of action research to nurses
Planning	16 meetings (every 2 weeks)	Nurses/auxiliary nurses	Cooperation	Identified area for development; teaching sessions arranged to help nurses reach their goals, e.g. counselling skills
Implementation	Teaching sessions	Nurses/auxiliary nurses	Cooperation	
Evaluation	Group reflection Field notes, interviews Participant observation	Nurses/auxiliary nurses	Co-learning	Counselling skills: nurses remained ill-equipped to deal adequately with their patients' psychological problems. Instead of promoting care of distressed patients, sessions might have served indirectly to increase nurses' frustration at their own inabilities Nurses accepted certain ideas and concepts, which originated in their chosen teaching sessions Developments in practice small and those that minimally affected other professions Identified factors that constrain or enable change: power and ideology; support; ownership; motivation; education and reflection; anxieties and stress; communication networks; facilitators; research participants' roles; execution of change; physical environment; patient numbers; permanency and qualification of staff; wider bureaucratic structures and policies

Impacts	None specified
Dissemination	Thesis report, journal publication

Webb *et al.*, 1990[76]	Webb C, Addison C, Holman H, Saklaki B, Wagner A. Self-medication for elderly patients. *Nurs Times* 1990;**86**(16):46–9			
Key details				
Thematic concern	No information			
Aims	To initiate self-medication project in ward for care of elderly people		**Objectives**	None stated
Target of change	Nurses/patients		**Change innovation**	Self-medication (4 stages)
Location	Hospital (one ward for elderly patients)			
Sampling methods	No information		**Analysis**	No information
Length of study	3-month trial period			
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Literature review Contacted UK Central Council for Nursing, Midwifery and Health Visiting about legal issues	Postgraduate students	Collective action	Developed protocol for project for self-medication
Planning	Weekly meetings		Collective action	Four-stage plan: nurse-administered medicines to patient self-administered medicines Guidelines for nurses drawn up Individual medicine cabinets/keys provided Arrangements for medical permission to be sought (recorded in notes) for patient to proceed to stage 4 Modified form of drug sheet developed
	Interviews	Ward staff	Consultation	Nurses' views on innovation: positive – thought self-medication was good idea; expected that it would increase self-care and prepare patient for discharge; pain relief would be under patient's control less positive – concern whether appropriate on other wards that had older and confused patients; more time-consuming; patients might take drugs incorrectly; who would be legally accountable for errors? Teaching sessions prepared
Implementation	Two teaching sessions prior to 3-month trial: 20 patients Guidelines, assessment form and new drug sheet distributed Support provided	Ward staff	Cooperation	Regular meeting with steering group identified minor problems which were promptly sorted out
Evaluation	Mid-project meeting	Ward staff	Consultation	Positive progress, some minor problems addressed, e.g. staff shortages through 'borrowing'
	Questionnaire	Ward staff	Consultation	Self-medication beneficial for patient but was time-consuming (less so once patients reached stage 4)
	Bradburn's measure of psychological well-being	Patients	Consultation	12/20 patients achieved almost complete independence; too few for statistical analysis. Paper provides evidence of favourable verbal responses (two patients) to self-medication
Impacts	None identified			
Dissemination	Journal publication			

Whyborne, 1996[75]	Whyborne N. An investigation into PCA discontinuation and subsequent nursing management of pain. South Buckinghamshire NHS Trust; 1996			
Key details				
Thematic concern	Development of nursing role in pain management (local situation one of over-reliance on medical staff) through empowerment of nurses			
Aims	1. To improve pain management of patients while managing their PCA 2. To optimise use of valuable resource, the PCA pump		**Objective**	None specified
Target of change			**Change innovation**	Draft protocol for discontinuation of PCA
Location	Hospital			
Sampling methods	Focus group and action research group: no information Implementation wards: high PCA usage; probability-of-adoption score; presence of action group members		**Analysis**	No information
Length of study	No information			
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Meeting: experience; staff reporting; audit	Nurse researcher, acute pain nurse	Collective action	Identified PCA as area that could be studied Nurses selected to take part in action research = action group
	Focus group	Nurses	Consultation	Author claim that questionnaire results demonstrated need for protocol to guide nurses involved in decision to discontinue PCA does not appear to match findings: pain assessment – 96% nurses would ask patient and considered patient best judge of their pain; nurses' knowledge of PCA side-effects appears accurate; discontinuation of PCA – non-use by patient for > 12 hours and/or patient's request; decision process – patients should be involved; nurses' knowledge of intramuscular/oral/prn (as required) analgesia appears accurate; patient education: 98% nurses confident in explaining PCA to patients. 68% patients did not know how to use PCA on day following surgery; selection criteria for PCA – non-prescriptive; nurses appeared unsure if age limits apply
	Staff questionnaire (formulated by action group)	Ward staff	Consultation	
Planning	Meeting Probability of adoption guide	Action group	Cooperation	Staff questionnaire to collect formal data on PCA discontinuation and subsequent pain management Designed pre-change data collection instrument: patient questionnaire; demographic data; chart review of total drug consumption Draft protocol for discontinuation of PCA developed
Implementation	Draft protocol introduced Tutorials (small group format)	2 wards	Cooperation	Some changes made to PCA assessment form (visual pain assessment scale and PCA discontinuation chart added)
Evaluation	Pre-change data collection (questionnaire)		Consultation	Author claims that pre-change data collection instrument demonstrated need for protocol (no results available): staff's reason for discontinuing PCA = patients; nausea – anti-emetics given on request; little prophylactic use
				No post-change evaluation data available at time of writing
Impacts	None identified			
Dissemination	Diploma report			

Wilkinson *et al.*, 1997[67] Wilkinson E, Elander E, Woolaway M. Exploring the use of action research to stimulate and evaluate workplace health promotion. *Health Educ J* 1997;**56**:188–98

Key details

Thematic concern	Development of effective workplace health promotion through alignment of business and public health objectives		
Research question	Can health promotion intervention introduced into local workplace be effective in changing risk for coronary heart disease?	**Objectives**	None stated
Target of change	Health promotion in businesses	**Change innovation**	Health promotion CHD prevention strategy (tailored to individual company)
Location	Community (workplaces)		
Sampling methods	Targeted to reach workforces (identified by prior survey)	**Analysis**	Qualitative and quantitative Cost–benefit analysis proposed
Length of study	24 months		

Process

Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	No information	No information	No information	
Planning		Steering group	Collective action	Semi-experimental design (intervention and control group) decided on Standardised intervention programme defined, based on previous research models, current good practice, and previous Bedfordshire workplaces survey
Implementation	Implementation in two companies (company 1 + 2, control companies; company 2 + 1, control company)	No information	No information	"The intervention was tailored to individual work sites" (page 190)
Evaluation	Pre/post intervention self-reported lifestyle questionnaire Semi-structured interviews Process data (field notes, minutes of meetings, individual progress reports, evaluation of specific intervention activities) Cost data	Employees	Consultation	Evaluation of intervention not completed; only survey results supplied by paper Initial evaluation of action research supplied: creating change on different levels requires multidisciplinary approach (organisational development, human resource management, training , marketing, communication, and qualitative and quantitative evaluation.); it requires more time and resources than required for delivering specific behaviour-change interventions; working within formal project management framework important in implementing action research intervention; standardised approach incorporates both rigor and flexibility; economic pressure and reorganisation have presented problems in recruitment and sustaining commitment to programme; lengthening timescale of project and amount of time participants can give to programmes; greater familiarity and awareness by commissioning authorities needed to enable action research projects to reach their maximum usefulness

Impacts	None identified
Dissemination	Journal publication

Wright, 1998[88]	Wright S. Developing health visiting practice using action research. *Community Practitioner* 1998;**71**:337–9			
Key details				
Thematic concern	No information			
Aims	To develop health visiting practice		**Objectives**	Identify current problems in practice Determine health visitors' perceptions of 'ideal' practice Empower staff to enable them to manage change more effectively Develop tools of analysis with staff participation
Target of change	Health visiting		**Change innovation**	Development of tool/strategies but no indication of their implementation in practice
Location	Community (one clinic)		**Mode of participation**	Cooperation
Sampling methods	Health visitors volunteered		**Analysis**	No information
Length of study	8 months			
Process				
Phases of action research cycle/s	**Methods**	**Participants**	**Participation**	**Outcomes**
Information gathering	Interviews Force field analysis	Health visitors	Consultation	Researcher oriented to locality, staff and their ways of working; gained staff interest in study Highlighted issues of concern to health visitors: no standardised form of record-keeping; no tools available for caseload profiling and analysis; determinination of current practice and how it could be improved in future Identified forces for and against change
Planning	Working group meetings	Health visitors	Cooperation	Action plans: developed new birth register and guidelines; developed template for caseload/workload profiling and analysis
Implementation	No information	No information	No information	No information
Evaluation	No information	No information	No information	No information
Impacts	No information			
Dissemination	Journal publication			

Methodology Group

Members

Methodology Programme Director
Professor Richard Lilford
Director of Research and Development
NHS Executive – West Midlands, Birmingham

Chair
Professor Martin Buxton
Director, Health Economics Research Group
Brunel University, Uxbridge

Professor Douglas Altman
Professor of Statistics in Medicine
University of Oxford

Dr David Armstrong
Reader in Sociology as Applied to Medicine
King's College, London

Professor Nicholas Black
Professor of Health Services Research
London School of Hygiene & Tropical Medicine

Professor Ann Bowling
Professor of Health Services Research
University College London Medical School

Professor David Chadwick
Professor of Neurology
The Walton Centre for Neurology & Neurosurgery
Liverpool

Dr Mike Clarke
Associate Director (Research)
UK Cochrane Centre, Oxford

Professor Paul Dieppe
Director, MRC Health Services Research Centre
University of Bristol

Professor Michael Drummond
Director, Centre for Health Economics
University of York

Dr Vikki Entwistle
Senior Research Fellow, Health Services Research Unit
University of Aberdeen

Professor Ewan B Ferlie
Professor of Public Services Management
Imperial College, London

Professor Ray Fitzpatrick
Professor of Public Health & Primary Care
University of Oxford

Dr Naomi Fulop
Deputy Director, Service Delivery & Organisation Programme
London School of Hygiene & Tropical Medicine

Mrs Jenny Griffin
Head, Policy Research Programme
Department of Health
London

Professor Jeremy Grimshaw
Programme Director
Health Services Research Unit
University of Aberdeen

Professor Stephen Harrison
Professor of Social Policy
University of Manchester

Mr John Henderson
Economic Advisor
Department of Health, London

Professor Theresa Marteau
Director, Psychology & Genetics Research Group
Guy's, King's & St Thomas's School of Medicine, London

Dr Henry McQuay
Clinical Reader in Pain Relief
University of Oxford

Dr Nick Payne
Consultant Senior Lecturer in Public Health Medicine
ScHARR
University of Sheffield

Professor Joy Townsend
Director, Centre for Research in Primary & Community Care
University of Hertfordshire

Professor Kent Woods
Director, NHS HTA Programme, & Professor of Therapeutics
University of Leicester

continued

HTA Commissioning Board

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Bury, Lancs

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NHS R&D Clinical Scientist
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University of Warwick

Dr Gillian Vivian
Consultant in Nuclear Medicine & Radiology
Royal Cornwall Hospitals Trust
Truro

Professor Graham Watt
Department of General Practice
University of Glasgow

Dr Jeremy Wyatt
Senior Fellow
Health Knowledge Management Centre
University College London

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Feedback

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We look forward to hearing from you.

Copies of this report can be obtained from:

The National Coordinating Centre for Health Technology Assessment,
Mailpoint 728, Boldrewood,
University of Southampton,
Southampton, SO16 7PX, UK.
Fax: +44 (0) 23 8059 5639 Email: hta@soton.ac.uk
http://www.ncchta.org

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