Qualitative Research in Health Care: Using Qualitative Methods in Health Related Action Research

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Qualitative research in health care

Using qualitative methods in health related action research

Julienne Meyer

The barriers to the uptake of the findings of traditional quantitative biomedical research in clinical practice are increasingly being recognised.[1] [2] Action research is particularly suited to identifying problems in clinical practice and helping develop potential solutions in order to improve practice.[3] For this reason, action research is increasingly being used in health related settings. Although not synonymous with qualitative research, action research typically draws on qualitative methods such as interviews and observation.

What is action research?

Action research is not easily defined. It is a style of research rather than a specific method. First used in 1946 by Kurt Lewin, a social scientist concerned with intergroup relations and minority problems in the United States, the term is now identified with research in which the researchers work explicitly with and for people rather than undertake research on them.[4] Its strength lies in its focus on generating solutions to practical problems and its ability to empower practitioners—getting them to engage with research and subsequent "development" or implementation activities. Practitioners can choose to research their own practice, or an outside researcher can be engaged to help them identify problems, seek and implement practical solutions, and systematically monitor and reflect on the process and outcomes of change.

Most definitions of action research incorporate three important elements: its participatory character; its democratic impulse; and its simultaneous contribution to social science and social change.[5]

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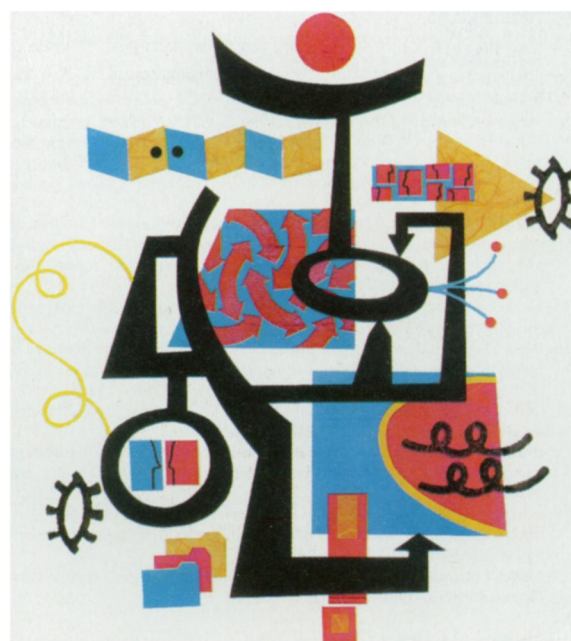
Summary points

Action research is increasingly being used in healthcare settings

It is a style of research rather than a specific method

Three elements are important: the participatory character of action research; its democratic impulse; and its simultaneous contribution to social science and social change

Participation in action research

Participation is fundamental to action research: it is an approach which demands that participants perceive the need to change and are willing to play an active part in the research and the change process. All research requires willing subjects, but the level of commitment required in an action research study goes beyond simply agreeing to answer questions or be observed. The clear cut demarcation between "researcher" and "researched" that is found in other types of research may not be so apparent in action research. The research design must be continually negotiated with participants, and researchers need to agree an ethical code of practice with the participants.[6] This is especially important as participation in the research, and in the process of change, can be threatening.[7] [8] Conflicts may arise in the course of the research: outside researchers working with practitioners must obtain their trust and agree rules on the control of data and their use and on how potential conflict will be resolved within the project. The way in which such rules are agreed demonstrates a second important feature of action research—namely, its democratic impulse.

Democracy in action research

"Democracy" in action research usually requires participants to be seen as equals. The researcher works as a facilitator of change, consulting with participants not only on the action process but also on how it will be evaluated. One benefit of this is that it can make the research process and outcomes more meaningful to practitioners, by rooting them in the reality of day to day practice.

Throughout the study, findings are fed back to participants for validation and to inform decisions about the next stage of the study. This formative style of research is thus responsive to events as they naturally occur in the field and frequently entails collaborative spirals of planning, acting, observing, reflecting, and replanning. However, care needs to be taken in this process as it can be threatening: democratic practice is

not always a feature of healthcare settings. An action researcher needs to be able to work across traditional boundaries (for example, between health and social care professionals or between hospital and community care settings) and juggle different, sometimes competing, agendas. This requires excellent interpersonal skills as well as research ability.

Contribution to both social science and social change

There is increasing concern about the "theory-practice" gap in clinical practice; practitioners have to rely on their intuition and experience since traditional scientific knowledge—for example, the results of randomised controlled trials—often does not seem to fit the uniqueness of the situation. Action research is seen as one way of dealing with this because, by drawing on practitioners' intuition and experience, it can generate findings that are meaningful and useful to them.

The level of interest in practitioner led research is increasing in Britain, in part as a response to recent proposals to "modernise" the NHS through developing new forms of clinical governance.[9] This and other national initiatives (the NHS Research and Development Strategy, the National Centre for Clinical Audit, the NHS Centre for Reviews and Dissemination, the Cochrane Collaboration, Centres for Evidence Based

Practice) emphasise that research and development should be the business of every clinician. Practitioner led research approaches, such as single case experimental designs,[10] reflective case studies,[11] and reflexive action research,[12] are seen as ideal research methods for clinicians concerned with improving the quality of patient care.[13]

In considering the contribution of action research to knowledge, it is important to note that generalisations made from action research studies differ from those made on the basis of more conventional forms of research. To some extent, reports of action research studies rely on readers to underwrite the account of the research by drawing on their own knowledge of human situations. It is therefore important, when reporting action research, to describe the work in its rich contextual detail. The researcher strives to include the participants' perspective on the data by feeding back findings to participants and incorporating their responses as new data in the final report. In addition, the onus is on the researcher to make his or her own values and beliefs explicit in the account of the research so that any biases are evident. This can be facilitated by writing self reflective field notes during the research.

The strength of action research is its ability to influence practice positively while simultaneously gathering data to share with a wider audience. However, change is problematic, and although action research lends

Action research typology (adapted from Hart and Bond)[3]

Action research type: distinguishing criteria	Consensus model of society Rational social management Experimental	Organisational	Professionalising	Conflict model of society Structural change Empowering
1 Educative base	Re-education	Re-education or training	Reflective practice	Consciousness raising
	Enhancing social science or administrative control and social change towards consensus	Enhancing managerial control and organisational change towards consensus	Enhancing professional control and individuals' ability to control work situation	Enhancing user control and shifting balance of power; structural change towards pluralism
	Inferring relationship between behaviour and output; identifying causal factors in group dynamics	Overcoming resistance to change or restructuring balance of power between managers and workers	Empowering professional groups; advocacy on behalf of patients or clients	Empowering oppressed groups
	Social scientific bias, researcher focused	Managerial bias or client focused	Practitioner focused	User or practitioner focused
2 Individuals in groups	Closed group, controlled, selection made by researcher for purposes of measurement, inferring relationship between cause and effect	Work groups or mixed groups of managers and workers, or both	Professional(s) or (interdisciplinary) professional group, or negotiated team boundaries	Fluid groupings, self selecting or natural boundary or open/closed by negotiation
	Fixed membership	Selected membership	Shifting membership	Fluid membership
3 Problem focus	Problem emerges from the interaction of social science theory and social problems	Problem defined by most powerful group; some negotiation with users	Problem defined by professional in group; some negotiation with users	Emerging and negotiated definition of problem by less powerful group(s)
	Problems relevant for social science or management interests	Problem relevant for management/social science interests	Problem emerges from professional practice or experience	Problem emerges from members' practice or experience
	Success defined in terms of social sciences	Success defined by sponsors	Contested, professionally determined definitions of success	Competing definitions of success accepted and expected
4 Change of intervention	Social science experimental intervention to test theory or generate theory, or both	Top down, directed change towards predetermined aims	Professionally led, predefined, process led	Bottom up, undetermined, process led
	Problem to be solved in terms of management aims	Problem to be solved in terms of management aims	Problem to be resolved in the interests of resolved in the interests of research based practice and professionalisation	Problem to be explored as part of the process of change, developing an understanding of meaning of issues in terms of problem and solution
5 Improvement	Toward controlled outcome and consensual definition of improvement	Towards tangible outcome and consensus definition of improvement	Towards improvement in practice defined by professionals and on behalf of users	Towards negotiated outcomes and pluralist definitions of improvement: account taken of vested interest
6 Cyclic processes	Research components dominant	Action and research components in tension; action dominated	Research and action components in tension; research dominated	Action components dominant
	Identifies causal processes that can be generalised	Identifies causal processes that are specific to problem context or can be generalised, or both	Identifies causal processes that are specific to problem or can be generalised, or both	Changes course of events; recognition of multiple influences upon change
	Time limited, task focused	Discrete cycle, rationalist, sequential	Spiral of cycles, opportunistic, dynamic	Open ended, process driven
7 Research relationship, degree of collaboration	Experimenter or respondents	Consultant or researcher, respondent or participants	Practitioner, or researcher or collaborators	Practitioner researcher or coresearchers or co-change agents
	Outside researcher as expert or research funding	Client pays an outside consultant— "they who pay the piper call the tune"	Outside resources or internally generated, or both	Outside resources or internally generated, or both
	Differentiated roles	Differential roles	Merged roles	Shared roles

itself well to the discovery of solutions, its success should not be judged solely in terms of the size of change achieved or the immediate implementation of solutions. Instead, success can often be viewed in relation to what has been learnt from the experience of undertaking the work. For instance, a study which set out to explore the care of older people in accident and emergency departments did not result in much change in the course of the study.[14] However, the lessons learnt from the research were reviewed in the context of national policy and research and carefully fed back to those working in the trust; as a result, changes have already been made within the organisation to act on the study's recommendations. Some positive changes were achieved in the course of the study (for example, the introduction of specialist discharge posts in accident and emergency departments), but the study also shed light on continuing gaps in care and issues that needed to be improved in future developments. Participants identified that the role of the "action researcher" had enabled greater understanding and communication between two services (the accident and emergency department and the department of medicine for elderly people) and that this had left both better equipped for future joint working. In other words, the solutions emerged from the process of undertaking the research.

Lay participation in care in a hospital setting: an action research study

Participation

- Careful negotiation to recruit willing volunteers to examine practice and initiate lay participation in care
- "Bottom up" approach to change via weekly team meetings
- Researcher as facilitator and multidisciplinary team member

Democracy

- Goal of empowering practitioners and lay people in this setting
- Working collaboratively with multidisciplinary team
- Participants given "ownership" of the data to determine how it might be shared with wider audience

Contribution to social science and social change

- Case study of multidisciplinary team on one general medical ward in London teaching hospital using:
    Qualitative methods to highlight key themes emerging in the project
    Quantitative methods for comparison of subgroups

Main action-reflection spirals

- Reorganising the work of the ward:
    Changes in patient care planning
    New reporting system, including bedside handover with patient
    Introduction of modified form of primary nursing system
- Multidisciplinary communication:
    Weekly team meetings instituted
    Introduction of a handout for new staff and team communication sheet
    Closer liaison with community nurses before discharge
- Lay participation in care:
    Development of resources for patient health education
    Introduction of medicine reminder card system
    Patient information leaflet inviting patients to participate in care

Results

- Insights into health professionals' perceptions of lay participation in care
- Some positive changes achieved (for example, improved attitudes to lay participation in care, patient education, improved ward organisation)
- Identified barriers to changing healthcare practice

Different types of action research

Four basic types of action research have been identified: experimental, organisational, professionalising, and empowering (table).[3] Though this typology is useful in understanding the wide range of action research, its multidimensional nature means that it is not particularly easy to classify individual studies. For instance, a study might be classified as "empowering" because of its "bottom up approach" in relation to the fourth distinguishing criterion of "change intervention," but the other distinguishing criteria may be used to classify the same study as a different action research type (experimental, organisational, or professionalising). This situation is most likely to occur if the researcher and practitioners hold differing views on the nature of society. It may be more fruitful to use this typology as a framework for critiquing individual studies and, in particular for thinking about how concepts are operationalised, the features of particular settings, and the contribution of the people within those settings to solutions.[15]

Action research in health care

At a time when there is increasing concern that research evidence is not sufficiently influencing practice development,[16] action research is gaining credibility in healthcare settings.[17] For example, the Royal College of Physicians in England has become involved in an action research study exploring the roles of clinicians, clinical audit staff, and managers in implementing clinical audit and ways of overcoming organisational barriers to audit.[18] The NHS Research and Development Programme has commissioned a systematic review of the action research. Elsewhere Ong has used "rapid appraisal," a type of action research, to engage users in the development of health care policy and practice.[19]

Action research has also been used in hospital settings to facilitate closer partnerships between staff and users, notably in a study which focused on the introduction of lay participation in care within a general medical ward of a London teaching hospital (box). This study used a range of methods, including depth interviews, questionnaires, documentary analysis, and participant observation to generate data about health professionals' perceptions of lay participation in care and the difficulties encountered in changing practice.[20 21] In this study, health professionals expressed extremely positive views about user and carer involvement when completing an attitude scale, confirming the results of previous research on health professionals' attitudes towards user and carer involvement in care.[22] However, the interview data showed that they had some serious doubts and concerns, and observation of practice revealed that these doubts and concerns were inhibiting the implementation of lay participation. This action research was able to explore the relation between attitudes and practices and explain what happened when lay participation was introduced into a practice setting. It showed that although current policy documents advocate lay participation in care (user and carer involvement), some health professionals were merely paying lip service to the concept and were also inadequately prepared to deliver it in practice. By

working closely with practitioners to explore issues in a practical context, the researcher gained more insight into how the rhetoric of policy might be better translated into reality.

Conclusions

Action research does not focus exclusively on user and carer involvement, though clearly its participatory principles makes it an obvious choice to explore these issues. It can be used more widely—to foster better practice across interprofessional boundaries and between different healthcare settings, for example.[14 23] It can also be used by clinicians to research their own practice.[10] It is an eclectic approach to research and draws on a variety of data collection methods. The focus on the process as well as the outcomes of change helps to explain the frequent use of qualitative methods by action researchers.

Competing interests: None declared.

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An unusual treatment
Feeding the fish

The revival of the use of living organisms to help in treating illnesses has grabbed the attention of the media recently. Reports of the use of leeches in plastic surgery and maggots in dermatology raise the question of which other animals may be of benefit, a concept some call "biotherapy." While there are promising studies of the use of maggots to help the healing of necrotic and infected wounds, those wounds with high moisture content defy even the larvae. Rumours of healing fish had reached Professor John Church, chairman of the International Biotherapy Society. Perhaps organisms which live in an aquatic environment could help to heal "wet wounds," he mused. We received anecdotes of the widespread use of such fish in southern India, and so, while travelling through the region, I decided to hunt down the practice in order to see if it worked. To my surprise, the practice was well known, particularly in rural areas. Locals with skin infections, infestations, and wounds would bathe the affected limb in the pond, while certain fish would be drawn to the lesion and nibble at it, thereby removing diseased tissue. After some searching I discovered Rishimangalam Tank, a local "holy pond" in the centre of Trivandrum, Kerala State. Through the services of an interpreter, some local boys were happy to collect some fish they recognised, using their dhotis as fishing nets. My intention had been to pickle them in a jar of gin for later identification. However, by coincidence, that very evening I met Professor Padmanabham of the fish biology department at the University of Kerala. He was familiar with *Macropodus cupanus,* the fish which he identified for me, as he had written a thesis on it. He told me that the practice of bathing limbs in pools for fish to help healing was widespread; in particular, mothers brought their children to be cured of scabies. The fish live in polluted water where they survive by both aerial and gill respiration, possessing accessory labyrinthine organs. Their preferred food is mosquito larvae, and as they eat constantly they do not need starving before use, unlike some species of maggots. Once drawn to the limb by substances which diffuse from the wound into the water, they eat, enjoying living and dead tissue equally. Although they nibble at the necrotic tissue faster, the eating of the living tissue can be quite painful. Perhaps we are not all ready to have our British wounds nibbled away, but with the use of local anaesthetic cream before treatment, the day may yet come where dermatology departments offer maggot treatment for the drier lesions, and the "biopool" for the wetter ones.

Jonathan Cohen, *senior house officer, Enfield*

We welcome articles of up to 600 words on topics such as *A memorable patient, A paper that changed my practice, My most unfortunate mistake,* or any other piece conveying instruction, pathos, or humour. If possible the article should be supplied on a disk. Permission is needed from the patient or a relative if an identifiable patient is referred to. We also welcome contributions for "Endpieces," consisting of quotations of up to 80 words (but most are considerably shorter) from any source, ancient or modern, which have appealed to the reader.