

Going to extremes: action research, grounded practice and the theory–practice gap in nursing

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Accepted for publication 4 December 1995

ROLFE G (1996) *Journal of Advanced Nursing* 24, 1315–1320

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Action research is growing in popularity with nurse researchers, where it is often seen as a way of bridging the theory–practice gap. However, there is little agreement on exactly what is meant by the term, and most nurse researchers stop short of exploring the full potential of this methodology. This paper argues that, if taken to its logical conclusion, action research methodology goes beyond the confines of the scientific paradigm and is able to bring about improvements in practice directly without the mediation of theory. This has some important implications for how the research process is viewed, and results in a model of research which is participative, reflexive and unashamedly subjective, and which generates non-generalizable, personal knowledge directly out of practice.

INTRODUCTION

The gap between theory and practice has long been recognized in nursing, and the usual way in which the profession responds to the challenge it presents is by exploring new ways of ensuring that research findings are implemented by practitioners. This approach to closing the gap owes much to the social science paradigm, which assumes that the function of research is to generate theory and knowledge, and that 'there is a constant relationship that exists between social research and social theory' (May 1993).

This paradigm has been accepted into nursing almost without question, and nearly all definitions of nursing research reflect its close relationship with theory and knowledge. Three recent descriptions and definitions are reproduced below, and the reader is invited to turn to almost any nursing research text in order to verify their widespread validity.

The major reasons for doing research in nursing are providing the profession with a body of scientific knowledge and identifying and developing nursing theories

(Treece & Treece 1986 p 18)

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[Research is] an attempt to increase available knowledge by the discovery of new facts or relationships through systematic enquiry

(Clark & Hockey 1989 p 4)

[Research is] rigorous and systematic enquiry designed to lead to generalisable contributions to knowledge

(Department of Health 1993 p 6)

According to these and most other definitions, the purpose of nursing research is to generate nursing knowledge and theory in much the same way that the purpose of social research is to generate social knowledge and theory. It has been contested (Rolfe 1994), however, that by adopting the paradigm of the social sciences, nursing research has overlooked what should be its main function: to improve nursing practice by the generation and refining of clinical nursing interventions.

Translating into practice

It could be argued, of course, that *all* nursing research aims to improve practice by producing and disseminating nursing knowledge and theory which is then read and implemented by practitioners. However, because it is an indirect process, much nursing research never gets

translated into practice. There is a growing body of literature as to why this is the case and what should be done about it (see, for example, McIntosh 1995 for a review of the literature), but the fact remains that many practitioners either will not or cannot incorporate research findings into their clinical work, and the theory–practice gap is showing no signs of diminishing.

The medical and health care professions are beginning to recognize the problem, and the Department of Health has recently responded by calling for further research to investigate why the findings of medical research are not being implemented. The paradox, of course, is that a research study to investigate why research is not translated into practice will itself probably not be acted upon! Furthermore, this research 'should focus both on the clinicians and the medium of delivery of research findings but not on the quality of the research — which in this instance is assumed to be good' (DoH 1995, author's italics)

Hierarchical split

This innocuous statement underlies a deep hierarchical split between what Elliott & Ebbutt (1985) termed 'knowledge generators' and 'knowledge appliers', whereby the former, usually researchers, lecturers and other academics, hand down their theories, models and research findings to the latter, usually practising nurses, who are then expected to implement them in clinical areas. It also betrays an attitude held by many researchers and academics towards practitioners that the reason for the theory–practice gap is not because of poor or inappropriate research, but because of practitioners' inability to turn it into so-called research-based practice, through either not being aware of current research findings or not properly implementing them. Thus

the blame for the continuation of traditional practices, which research has shown should be changed, cannot be laid at the door of that research. Rather the fault is either one of communication of findings, or of inertia to change

(Gibbins 1993 p 30)

Therefore, it is claimed that if only practitioners would implement the research findings generated by academics, then all would be well. Few academics stop to consider that perhaps the theory–practice gap is a result not of the failure of nurses to put theory into practice, but of the inadequacy of the theory itself, that perhaps theoreticians are out of touch with the needs and realities of clinical practice and are generating theories and models which either have no relevance to practising nurses, or else which are impossible to translate into practice.

CLOSING THE THEORY–PRACTICE GAP THROUGH RESEARCH

One solution to the problem of the theory–practice gap is for practitioners to become directly involved in nursing research rather than relying on academics, and this involvement usually takes one of two forms. On the one hand, some practitioners are starting to engage in their own research in areas that are of direct relevance to their own practice, either through reflection-on-action or through small-scale, ward-based research projects. However, the Department of Health appears to frown on this approach, insisting that only large, generalizable studies are of value to the development of nursing, and that 'the proliferation of inadequately supervised, small scale projects should be curbed' (DoH 1993).

On the other hand, practitioners are increasingly entering into collaborations with trained researchers in action research projects, which appear to offer the promise of closing the theory–practice gap (Webb 1990) and of a positive change in the health of patients (Greenwood 1994). There is a great deal of confusion, however, over exactly what is meant by action research, since the term covers a variety of approaches, and there seems to be very little agreement, even among action researchers themselves, as to exactly what it is and who should be involved in doing it.

Light on the confusion

In an attempt to throw some light on the confusion, several writers have offered typologies of the broad continuum of action research methodologies (Holter & Schwartz-Barcott 1993, Hart & Bond 1995). At one extreme is the traditional approach originally proposed by Lewin (1947), in which the research is conducted by someone from outside the organization being studied, and where the role of the researcher is to 'serve as professional expert, designing the project, gathering the data, interpreting the findings and recommending action to the client organization' (Whyte 1991). Also at this end of the continuum is the sociological approach to action research, the testing out of social theories in real-life practical situations to discover whether the predicted outcomes materialize, and whether the theories can therefore be said to 'work'.

What these approaches have in common is that they maintain the distinction between theory and practice, and between the theoretician who comes into a practice area to test a theory or prescribe a certain course of action, and the practitioner who is expected to implement that theory or action.

Participative or cooperative enquiry

At the other end of the continuum is participative or cooperative enquiry, which attempts to break down the barriers

between practitioner and researcher, and between researcher and researched, 'in which all those involved contribute both to the creative thinking that goes into the enterprise and also contribute to the action which is the subject of the research' (Reason 1988) This approach was popularized by the self-styled 'new paradigm' psychologists in the early 1980s, and has been adopted by a number of educationalists, who have transformed it into a model of practitioner-based enquiry, small-scale projects in which practitioners examine and explore the effects of changes to their own practice This approach has been defined as

the systematic study of attempts to change and improve practice by groups of participants by means of their own practical actions and by means of their own reflections upon the effects of those actions

(Ebbutt 1985 p 156)

However, although popular in the field of education, it has been noted that studies at this end of the continuum are severely under-represented in the nursing literature, with Holter & Schwartz-Barcott claiming that the majority of action research projects in nursing are what they have described as 'technical collaborative', the aim of which is to 'test a particular intervention based on a pre-specified theoretical framework' (Holter & Schwartz-Barcott 1993) It would seem, therefore, that most action research in nursing is undertaken not with the aim of bringing theory and practice closer together, but to test theory in a practical setting, the result of which has been 'to "save" action research for positivism and foundationalism through maintaining a separate domain of academic research expertise and preserving those theory-practice distinctions' (Usher & Bryant 1989) This approach to action research maintains the hierarchical distinction between theory and practice, and merely attempts to modify theory to take account of the constraints of the 'real world' of practice, such that 'the theory therefore more comprehensively describes and proposes practice' (Gibbins 1993)

REFLEXIVE ACTION RESEARCH

Arguably, the best hope of closing the theory-practice gap lies at the participative end of the action research spectrum, where practitioners and researchers work together, and indeed are often the same people However, although this approach, by definition, is guaranteed to bring about *change* by impacting directly on the clinical situation, it does not necessarily bring about *improvement* In order to ensure that the change introduced by the researcher-practitioner is positive therapeutic change, it needs to be closely monitored and if necessary, modified while the research is taking place, and one way of doing this is

through the introduction of reflexivity into the research process

Reflexive action research, as defined in this paper, is based on the process of reflection-in-action or on-the-spot experimenting (Schön 1983), in which the researcher-practitioner evaluates a situation, develops a theory to account for that situation, tests the theory by constructing and implementing a clinical intervention, evaluates the new, transformed situation, modifies the theory accordingly, and so on in a continuous cycle or spiral Thus, not only is theory constructed and change implemented, but the effects of that change are immediately assessed and the theory and practice modified accordingly within the same study, and in this way, negative outcomes are eliminated and positive outcomes are enhanced

Similar to grounded theory

This approach to research is in some ways similar to the sociological methodology of grounded theory (Glaser & Strauss 1967), in which the method and focus of data collection is consistently modified by the emerging data The difference, of course, is that Glaser & Strauss were concerned with the construction and development of theory grounded in data, whereas reflexive action research is concerned with the construction and development of practice interventions grounded in data We might therefore refer to this approach to research as grounded practice, and although theory is constructed, it is theory about the particular clinical setting being studied, and cannot be separated from, or generalized beyond, that setting

In fact, this grounded practice approach to research has a number of features in common with grounded theory Both are reflexive in that the research methods (and in our case, practice interventions) are being constantly shaped and refined by the emerging data, what Glaser & Strauss referred to as theoretical sampling Both see the function of research as to address the fundamental issue of the discipline the gap between research and theory for social science, the gap between research and practice for nursing And both are broad methodological frameworks within which a variety of formal and informal research methods can be utilized In fact, both methodologies to some extent see research methods as a means to an end and seek to resolve the conflict between the aims of qualitative and quantitative methods

Purist scientific researchers might argue that by bringing about changes in the situation under study before the research is completed, the field is contaminated and the findings unreliable But since this approach is primarily about clinical change rather than data collection and theory generation, the theory is merely an epiphenomenon of the action, and the research process is in many ways simply a means to an end

Criticisms by traditionalists of this attitude of viewing

research methods as a means to the end of generating theory or practice interventions were identified by Glaser & Strauss, who noted that the rigorous purist approach to social research

has had the unfortunate consequence of discrediting the generation of theory through flexible qualitative and quantitative research. The qualitative research is generally labelled 'unsystematic', 'impressionistic', or 'exploratory', and the flexible quantitative research 'sloppy' or 'unsophisticated'

(Glaser & Strauss 1967 p 223)

'These critics', they go on to claim, 'in their zeal for careful verification and for a degree of accuracy they never achieve', have forgotten the true purpose of sociology, which is the generation of social theory

Important goal of nursing research

The same could be said of nursing, that in our zeal for methodological rigour and the quest for ever more exotic nursing models and theories, we have forgotten that the most important aim of nursing research is to bring about improvement in nursing practice, and the continued existence of the theory-practice gap is an indictment of our failure to do so

But in fact, grounded practice *is* systematic, rigorous and methodical, and should not be confused with trial and error, which has none of the above attributes. However, it is founded on a different set of assumptions from the traditional, scientific research paradigm advocated by the Department of Health (1993) and most nursing research texts. Scientific research is based on what Schön (1983) referred to as the paradigm of technical rationality, 'the Positivist epistemology of practice' according to which theory and practice are separate, and in which the role of research is to generate objective, generalizable theory which is then applied to practice. In the words of Andrews & Roy (1986), 'Nursing is a science and the application of knowledge from that science to the practice of nursing'

In contrast, grounded practice methodology is based on a paradigm which regards theory and practice as two sides of the same coin, such that theory is generated out of practice, and in turn informs and modifies that practice (Rolfe 1993). As we have seen, this kind of theory is not generalizable and neither is it objective, it does not exist apart from the practice setting in which it was generated. The two paradigms are therefore based on very different assumptions, and to criticise one paradigm from the perspective of the other is, to paraphrase Darbyshire (1994), rather like criticizing a car for being a bad bicycle

GROUNDING PRACTICE AND SUBJECTIVITY

It is clear that to take action research to its logical conclusions entails stepping outside of the established

technical rationality paradigm, a step which few nurse researchers seem prepared to do. Many researchers prefer to see action research as a form of experimental or quasi-experimental methodology (Couchman & Dawson 1990, Sapsford & Abbott 1992), located firmly within a scientific framework, while others (Gibbins 1993) emphasize the point that the findings from action research studies are not generalizable, and that recommendations for practice should therefore be made with caution. Gibbins (1993 p 30) continued

Action research leads to a limited theory but, combined with other types of research methodology, can result in the formation of a nursing theory base on which sound practice can be based

This is a disappointing and unimaginative conclusion, and displays an unwillingness to look beyond the traditional social science paradigm within which almost all nursing research is located, and in particular the view that practice can only be changed through developing new theories based on generalizable, scientific research

As we have seen, however, the type of action research which I have referred to as grounded practice conflicts with traditional scientific research in a number of ways. Firstly, it advocates a non-elitist approach involving small-scale projects carried out by practitioners themselves. Secondly, it results in nongeneralizable, personal knowledge, and more importantly, in changes to practice rather than to the generation of theory. And thirdly, it rejects the traditional, reductionist, scientific, objective model of research, in favour of a model that is holistic, humanistic and subjective

This latter point of subjectivity is probably the most important and distinguishing feature of grounded practice methodology. The researcher-practitioner is the main judge of the quality of an intervention, and her evaluation is made not on some external, objective criteria, but on her own personal professional judgement. That is not to say, however, that she will approach the study with an anticipation of the findings, but that she will have a notion of what constitutes desirable change in the situation being researched. As Schon (1983) pointed out, the researcher-practitioner 'has an interest in transforming the situation from what it is to something he likes better'

Subjective

Grounded practice is therefore unashamedly and necessarily subjective. The researcher-practitioner brings with her an agenda to improve practice and a body of professional knowledge and experience as to exactly what improved practice means, and for that reason, her experience as a practitioner is of equal or greater importance to her experience as a researcher

In fact, this whole notion of objective social research is arguably a myth, propagated in an attempt to gain the

academic credibility afforded to the so-called 'hard' sciences such as physics and chemistry. But ironically, just as the social sciences were attempting to replicate the hard objectivity of the physical sciences, physics was moving in the opposite direction and beginning to acknowledge that 'natural science does not simply describe and explain nature, it is part of the interplay between nature and ourselves' (Heisenberg 1963). So,

In atomic physics, then, the scientist cannot play the role of a detached objective observer, but becomes involved in the world he observes to the extent that he influences the properties of the observed subjects

(Capra 1976 p 145)

And if the physicist cannot detach herself from what she is observing, how much more difficult, then, for the social scientist, who is investigating the behaviour of thinking, reacting people who 'are fully capable of adjusting their behaviour and the meaning they give to events if a social scientist starts to investigate their lives' (Shipman 1972)

But there is a stronger objection to the myth of objectivity. However objective the research methods are made, and no matter how carefully the researcher tries to avoid bias in the collection of data, raw data are of little use, they require analysis and interpretation in order to extract meaning from them. And since, as Lukes (1981) pointed out, there are many possible interpretations that can be placed on any findings, subjectivity is inevitable if the data are to be of any practical use. The research findings might, on the surface, appear to be the result of an objective process, but that objectivity vanishes as soon as a theorist or practitioner attempts to apply them in the real world. The question is therefore not whether social and nursing research is subjective or objective, but at what point, and by whom, a subjective interpretation is introduced.

Arguably, then, if the researcher offers no subjective interpretation of her findings, then somebody else will, and that person might be less well qualified to do so. One of the main advantages of grounded practice methodology, where a clinician is researching her own practice, is that the researcher-practitioner is probably best placed to subjectively interpret her findings and turn them into the kind of action most likely to benefit her patients.

CONCLUSION

This paper has argued that nursing has unquestioningly adopted the social science research paradigm without fully exploring the differences in the aims of research between nursing and the social sciences. It is contended that whereas the aim of social research is the construction and testing of social theory, the aim of nursing research should be the generation of nursing practice, and that the theory-practice gap is precisely the gap between research-based theory and theory-based practice.

The approach advocated here has been to suggest a research methodology which addresses the concerns of practice directly without the mediation of theory. Such a methodology, which I have referred to as grounded practice, has three important consequences which run counter to the dominant paradigm of nursing research: firstly, it involves practitioners directly in the research process as researchers of their own practice, secondly, it is reflexive in that it changes practice as a direct result of the research process, and is itself modified by the changes it brings about, and thirdly, it is overtly and unashamedly subjective in that it relies on the practitioner-researcher to make decisions about the sort of changes that she wants to bring about in her practice.

Theory is still generated, although it is personal theory about the particular issue being researched, and is not generalizable beyond that situation. Furthermore, this form of theory cannot be separated from the practice setting it was derived from, it is, in effect, a theory of practice.

That is not to say that large scale scientific research is not required by nursing, or that large scale generalizable theory is of no use, simply that there is another kind of theory which is unique to practice-based disciplines such as nursing, and which nurses are in danger of overlooking if they model nursing exclusively on the paradigm of a theory-based discipline such as the social sciences.

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