

Does nursing research impact on policy? A case study of health visiting research and UK health policy

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ABSTRACT

The aim of this study was to critically examine the impact of nursing research on the development of health care policy using UK health visiting research as an example. We used established methods to evaluate research impact. This included documentary review of over 30 policy documents, citation analyses on 19 papers and interviews with health visiting researchers. Although there were examples of policy documents being informed by health visiting research it was not always clear what role research had played in the development of recommendations. Information from researchers provided examples of local, national and international impact although the extent to which papers may have impacted upon policy was less clear from the citation analyses. Many of the UK studies cited in policy documents were qualitative, observational or reflexive and a lack of evaluative research, in particular RCTs and other controlled evaluations, may limit the impact of health visiting research on health care policy in the UK. There is evidence that health visiting research has influenced healthcare policy but this has been limited and there is a need for more research to underpin and inform the role of the health visitor.

Key words

Research impact, Policy, Health visiting, Evidence based practice

INTRODUCTION

There is a growing emphasis in the UK, and internationally, on evaluating the wider impacts of research, and this includes the contribution that research makes to the development of public policy. In addition, the rise of the evidence-based practice movement has led to calls for a similar evidence-based approach towards the development of policy (Ham et al., 1995, Cabinet Office, 1999). However, despite increasing support for the rhetoric of evidence-informed decision making, it has been suggested that, in reality, research has had a very limited impact on government policy (Black, 2001, Lomas, 2000b). This has been attributed to a number of factors including naivety on behalf of researchers who have not recognised the complex social, cultural, political, economic and ideological factors which contribute to the development of health policy (Davis and Howden-Chapman, 1996). Critics argue that policy making is a haphazard and somewhat volatile process (Lomas, 2000a) and that researchers need to be aware that research evidence is only one factor in shaping policy. Decision makers are subject to many different influences including political imperatives, the media, non research evidence, local information, expert opinion, and powerful lobbying groups (Campbell, 2007, Black, 2001).

Determining the impact of research upon policy

A variety of terms have been used to describe the impact of research on policy and practice. These include research impact, influence, outcomes, benefit, payback, translation, transfer, uptake and utilisation (Carden, 2004a, Boaz, 2008). Research can be used either directly in decision-making related to policy or practice, or indirectly by contributing to the formulation of values, knowledge and debate. There is a key distinction to be made between 'conceptual' use, which brings about changes in levels of understanding, knowledge and

attitude, 'symbolic use' which can lead to the mobilisation of support, and 'instrumental', or direct use, which results in changes in practice and policy making (Huberman, 1992, Amara et al., 2004, Nutley, 2003b, Weiss, 1976). Indeed, 'research impact forms a continuum, from raising awareness of findings, through knowledge and understanding of their implications, to changes in behaviour' (Nutley, 2003a).

In the field of health care there has been a fairly substantial amount of work exploring research impact but it has tended to focus on the impact on clinical practice rather than policy (Boaz, 2008). Determining the impact of research upon policy is not straightforward (Hanney, 2007) as it may be difficult to isolate the role research has played in relation to the many other confounding factors that might contribute to policy development (Boaz, 2008, Carden, 2004b, Lavis et al., 2003, Hanney et al., 2000). Determining the impact of a specific piece of research is even more difficult as payback may come from an accumulation of research, that is the general 'stock or reservoir of knowledge', rather than from a single study (Hanney et al., 2000). Measuring impact is further complicated by the distinctions between direct or indirect influence. Conceptual and symbolic influence may be far harder to distinguish than instrumental or direct use of research.

There is now a considerable body of work looking at the impact of research upon practice including the factors involved in implementing evidence-based practice in nursing (Rycroft-Malone et al., 2004). However, far less is known about the influence of nursing research on health care policy.

Health visitors, evidence and policy

In the UK Health visitors are qualified nurses with specialised training in child health and health promotion. They were seen as potential leaders in delivering the previous UK Government's public health agenda (DH, 2007, DH, 2008) and are also key to the current Government's plans. However, it is not clear to what extent recent or current policy concerning health visitors, and their role with children and families, is informed by evidence.

Why this work is necessary

There is an increasing emphasis on the impact of research but there is at present a lack of information about the impact of nursing research on health care policy. To gain a greater insight into the impact of nursing research on policy we used established methods for the assessment of research impact to determine whether health visiting research had influenced health care policy on children and families in the UK.

Aims and Objectives

The aim of the study is to explore the impact of nursing research upon the development of health care policy. To do this we have undertaken a case study to critically examine the following issues:

Has health visiting research influenced the development of health policy relating to children and families in the UK ?

What type of health visiting research has informed health policy relating to children and families in the UK?

What are some of the potential barriers that might prevent nursing research impacting upon health care policy?

Definition of key terms

The definition of policy we used was one employed in an evaluation of the UK NHS R&D methods programme (Hanney, 2003). This includes not only national government policy but also policies agreed at national or local level by groups of health-care practitioners in the form of clinical or local guidelines as well as policies developed by those responsible for training and education in various forms. It was also important to be clear about what we meant by health visiting research. For the purpose of this study we defined this as research either done by health visitors or that was specifically concerned with health visiting practice, education or service delivery or that concerns some aspect of their role, such as home visiting.

METHODS

There is no single standard approach to measuring the impact of research and a variety of evaluative methods exist (Boaz, 2008, Hanney, 2007). Most evaluations, however, involve tracking forwards from a piece of research or tracking backwards from policy documents or policy change (Boaz, 2008). Forwards tracking, which is more commonly used, has advantages because it provides more focused studies but it has been argued that such approaches can exaggerate the impact of research because it may ignore other factors that could have contributed to policy change (Hanney, 2007). Therefore, to ensure that our evaluation was as comprehensive as possible we used a mixture of both approaches. In addition, as the use of multiple sources of evidence has been recommended to identify

research impact (Lavis et al., 2003, Hanney et al., 2004), we used a variety of methods including documentary and literature review, citation analysis, and informal semi-structured interviews with researchers. Many impact evaluations take as their starting point a particular research project or specific programmes of research. In this case, however, we were looking more generally at the impact of health visiting research on UK health policy and our evaluation was, therefore, broader and more explorative in nature.

Documentary and literature review

The primary method we used was documentary analysis of policy documents and guidelines published in the UK that were considered relevant to health visiting practice. As we were most interested in current and recent policy we limited our searches to 2000 onwards. We began with key policy documents already known to the authors and then used a process of snowballing and internet searches to identify additional documents. To identify guidelines we screened the titles and abstracts of those papers identified by the citation analysis, searched The National Library of Guidelines on the NHS Evidence website, searched the TRIP database using the terms 'health visit*' or 'health visiting' or community nur* and using the guideline and review filter, and searched the website of The National Institute for Health and Clinical Excellence (NICE). Searches were conducted in July 2009. Reports and guidelines were then hand-searched for any mention of programmes or research relevant to health visiting. If it was unclear if the research mentioned in the policy document was relevant to health visiting we obtained a copy of the primary research paper to check. Identified research was then classified by the type of research study (e.g. systematic review, RCT, qualitative research).

Citation analysis

The analysis of policy documents was supported by methods to track forwards from key pieces of research published since 2000. This included citation analysis of a sample of 19 health visiting research papers. These papers were identified by searching the reference list of a recent paper which draws on the experience of providing evidence to the Health Select Committee's 2009 inquiry into health and which provides examples of health visiting research (Cowley and Bidmead, 2009), snowballing from other papers or documents and from personal knowledge of researchers working in this area. These papers were only intended to be a sample rather than an exhaustive list of relevant papers but our aim was to include studies that might be considered important within the health visiting community.

We then undertook citation analysis on these papers. This technique, which essentially involves counting the number of times a research paper is cited, works on the assumption that influential researchers and important works will be cited more frequently than others (Meho, 2007). However, the main purpose of the citation analysis was to trace the flow of knowledge and look for any evidence that the papers had impacted on the research and policy communities. The citation analysis was conducted in ISI Web of Science, Scopus and Google Scholar in September and October 2009. Traditionally the Thomson Scientific ISI citation databases have been the main tool for citation analyses. However, the use of Scopus from Elsevier and Google Scholar from Google are also recommended as they include additional document types such as books and conference proceedings that are not indexed in the ISI citation databases (Meho, 2007, Bakkalbasi et al., 2006); although information in the later can be flawed or inadequate.

Interviews

As obtaining the 'insider account' has been recommended when evaluating research impact (Hanney, 2007) we undertook a number of informal semi-structured email or telephone interviews with health visiting researchers in the UK. These researchers were identified through the citation analyses described above and through the authors' knowledge of researchers in this area. Participants were asked whether they were aware of any ways in which their research might have influenced health care policy in the UK.

Framework for evaluation

As well as a variety of methods for evaluating impact there are also a number of different frameworks available for structuring assessments of research impact. We chose to use the Research Impact framework, developed by Kuruvilla and colleagues (Kuruvilla et al., 2006) because we felt it addresses the complexities of the relationship between research and policy more fully than many of the alternatives. This framework draws on the theories of Weiss who suggested that research could impact on policy in a number of ways, either directly impacting on decision-making or more often indirectly by mobilising support or contributing to the formulation of values, knowledge and debate (Weiss, 1976). We only used the section of the framework that addresses impact upon policy. The categories included can be seen in box 1.

RESULTS

In this section the results from the documentary and literature review, the citation analysis and the interviews with authors are presented separately. Then all the results are considered together in light of the framework described above.

Documentary and literature review

The focus of this evaluation was policy relating to health visitors and their role with children and families and the documents we included were predominantly concerned with the prevention of ill health and disadvantage, health promotion, safeguarding children, supporting parents and reducing inequalities. We identified 24 policy documents, and eight guidelines published in the UK between 2002 and 2009 that were potentially relevant. The majority concerned national policy, either Government Papers or national Guidelines such as those produced by the National Institute of Health and Clinical Excellence (NICE) a body set up to make evidence-informed decisions about health care treatment in England and Wales. A list of these documents, including details of any relevant research cited can be seen in table 1.

Policy documents

Only two documents specifically concerned health visiting (DH, 2007, DH, 2009). However, a number of others made recommendations about the role of the health visitor; for example their role in supporting vulnerable families (DH and DCSF, 2009) or safeguarding children (TSO, 2009). In some instances these recommendations were supported by specific evidence but in many cases it was not clear to what extent they were informed by research.

One of the most frequently discussed programmes in relation to health visitors was health-led home visiting targeted at vulnerable families. This scheme, known as the Family Nurse Partnership Programme, is based on a model of nurse home visiting that originated in the United States (Olds, 2006, Olds et al., 2004). In the UK pilot projects the majority of nurses involved in delivering the intervention have previously worked as health visitors (Barnes et al., 2008). However, in the US, where the health visitor' role does not exist, the intervention is delivered by public health nurses. The pilot work now being conducted in the UK (Barnes et al., 2008) was referred to in a number of documents, however, the randomised controlled trials (RCTs) conducted in the US were the most frequently cited evidence.

Parenting programmes may also be a way to support vulnerable families and the policy documents frequently recommended the use of parenting programmes such as Webster-Stratton, Triple P and The Solihull approach. Recommendations about these programmes appeared to be supported by evidence and several reviews of parenting were cited.

However, although health visitors may be involved in delivering parenting interventions many of these programmes are not specifically relevant to health visitors and the research cited does not involve health visitors delivering the interventions.

A key part of the previous Government's Healthy Child Programme was the development of Sure Start Children's Centres which bring together early education, childcare, health and family support. Health visitors are seen as having a key role in Sure Start but although many of the documents made reference to the role of health visitors in Sure Start little research evidence was cited to support this. A few reports cited research in relation to the role of health visitors in supporting mothers with postnatal depression. Other aspects of the health

visitors' role, for example around creating and developing teams or integrated working, were discussed but little research evidence was cited to support these recommendations.

Guidelines

As many of the Guidelines, such as those developed by NICE, are informed directly by reviews of the evidence the link between recommendations and evidence was generally clearer than in the other policy documents. Although none of the guidelines were specific to health visiting a number did cite research that was relevant to health visiting. For example, studies on the determinants of vaccine uptake have informed guidelines on immunisation (NICE, 2009). Guidelines on improving nutrition in pregnant women and children in low income households (NICE, 2008) cited some studies involving health visitors but these tended to be small and poor quality. Guidance published by the Royal College of Paediatrics and Child Health (Hall and Elliman, 2006) cites a number of research papers which they say provide some useful insights into what a quality health visiting service should offer. However, the studies cited to support this are mostly qualitative, observational or reflective papers and there appears to be few UK based quantitative evaluations of the effectiveness of interventions relevant to health visiting.

Types of research

The type of research used by the policy documents and guidelines to support their recommendations can be seen in table 1. There was some evidence from randomised controlled trials to support health visiting interventions but much of this had been conducted in the USA. In general much of the primary research relating specifically to

health visiting was in the form of qualitative research, surveys, observational studies and opinion pieces.

Citation analysis

The full results of the citation analysis can be seen in Table 2. Although citation counts for all papers were available in Google Scholar several of the papers were not indexed in ISI Web of Science or Scopus. All the papers had been cited at least once in one of the databases and six papers had been cited over 20 times in Google Scholar. It is perhaps not altogether surprising that some papers had low citation counts as many of the papers had been published relatively recently and none had been published before 2000. It has been found that on average it takes three years for a paper to be cited (Grant and Lewison, 1997) and the median time lag between the publication of a paper and its inclusion in published guidelines is eight years (Grant et al., 2000). In his work on the policy cycle Sabatier argues that the process of policy change 'requires a time perspective of a decade or more' (Sabatier, 1988). This ties in with Weiss's ideas of the enlightenment function of research (Weiss, 1977) that argues that a focus on short-term impact will underestimate the influence of research because one of the functions of research is to alter perceptions and concepts of policy makers and researchers over time.

Interviews with key informants

Seven out of the 14 researchers contacted responded to our request for information. This information from researchers was very valuable as it provided examples of impact that had not been apparent through the documentary and citation analysis. Researchers were able to: give us a clearer sense of how their research may have fed into policy, put their work in

context, give us details of other papers that they thought had had an impact and demonstrate how a number of papers on the same topic could, over time, have a cumulative effect.

Information from the researchers demonstrated the way some research had fed into local health care policy. For example, research on immunisation which highlighted the importance of opportunistic immunisation in a hospital setting (Walton et al., 2007) had been used to develop local hospital policy, and training and a tool for measuring parenting self-efficacy (Kendall and Bloomfield, 2005) had been adopted as the tool of choice in local evaluations and had been used in other parts of the country and internationally.

We were also able to see how it was often a body of work rather than an individual study that may have impacted on policy. Papers in our citation analysis on the development and evaluation of the Family Partnership Approach (Davis et al., 2002, Bidmead and Cowley, 2005) were part of a larger body of work carried out over at least ten years. The researchers suggested that it was this work as a whole that had influenced policy and practice rather than a single study.

There were also examples of the way research may take years to enter the policy arena. In the two year review of the Healthy Child Programme (DH and DCSF, 2009) it is recommended that health visitors use evidence-based validated tools rather than locally adapted materials that have not been evaluated. Health visiting researchers have for many years been stressing the importance of using validated tools (Appleton and Cowley, 2004) and it appears that this advice has now been heeded.

Information from individual authors also highlighted potential barriers to evidence-informed policy. For example, one respondent suggested that there may be a tension between the demands of the policy process and the ability of researchers to produce timely research. This may result in policy makers setting the policy agenda sometime before full research findings are available.

Evaluation of research impact upon policy using framework

In this section the results of the impact evaluation are considered using the framework described in box 1.

Levels of policy making

There were clear examples from the documentary analysis of research influencing national policy. This link between evidence and policy appeared to be more explicit in recent documents which may reflect a growing move to use evidence to inform policy. As our evaluation was focused on the impact on health care policy in the UK we did not search specifically for evidence of impact at an international level. However, there were examples that emerged from interviews that demonstrated international impact. UK research on the Family Partnership Approach (Davis et al., 2002) had been adopted widely in Australia and New Zealand, and a tool for measuring parenting self-efficacy (Kendall and Bloomfield, 2005) had been adapted for use in Japan. The interviews also discovered a number of examples of impact on local policy.

Type of policy

Black identifies three types of policy including practice policies (use of resources by practitioners), service policies (resource allocation and pattern of services) and governance policies (organisational and financial structures) (Black, 2001). He argues that the influence of research on the latter has generally been limited as decisions about governance are driven by many factors including ideology, value judgements, financial and economic considerations and political expediency. Although a number of changes to the delivery of services that involve health visitors are proposed the extent to which these are driven by research evidence appears to be limited.

Changes to service policies may be influenced by evidence. For example, the introduction of the Family Nurse Partnership Programme appeared to be supported by evidence from the USA. However, whether the move towards a targeted rather than universal service was primarily driven by evidence or by ideology or economic or political expediency is debatable. The increasing emphasis on evidence-based guidelines means that research is perhaps most influential at the level of practice policies. However, the lack of high quality evaluations conducted in the UK that address some aspect of the role of the health visitor means that, at present, the scope for impact upon practice policies is limited.

The way many major changes to service delivery and organisation come about illustrates how political and economic factors and intellectual fashion are often far more powerful than evidence. Although frameworks for the design and evaluation of complex interventions suggest that evaluation should be sequential, moving from theory to modelling, explanatory trials, pragmatic trials, and ultimately long term implementation (Campbell et al., 2000) in reality this sequence is rarely followed. The Government often

introduce new services before evaluation can take place and subsequent evaluations may have to use unreliable methods such as uncontrolled before after studies (McDonnell et al., 2006).

Nature of policy impact

The Research Impact Framework also attempts to distinguish between instrumental or direct impact as against indirect conceptual or symbolic use. In this case there was evidence that some health visiting research had a direct or instrumental impact on practice or policy; for example by being used to support the development of health-led home visiting interventions, or being used to inform NICE guidelines on immunisation. However, it was not always easy to determine the contribution of individual studies to the policy process. Determining whether research has had impact at an indirect level, for example through the formulation of values and knowledge or the stimulation of debate is even harder. However, information from researchers gave some insight into the way research may, over time, have stimulated debate and changed ideas; for example arguments that health visitors should use validated assessment tools is reflected in a recent policy document (DH and DCSF, 2009).

DISCUSSION

Summary of findings

We searched over 30 policy documents, performed a citation analysis on 19 papers, and contacted researchers to explore the relationship between health visiting research and health care policy relating to children and families in the UK. Although our focus was on health visiting the methods we used would be applicable to other areas of nursing and healthcare research. Many of the policy documents discussed the role of the health visitor

and appeared to see them as playing a key role in delivering the Government's public health agenda. Despite this, it was not always clear what role research evidence had played in the development of recommendations. The methods for evaluating and interpreting evidence were generally clearer in the Guidelines than in the other policy documents.

We did find examples of UK health visiting research directly influencing local, national and international policy. However, some of the most influential research, such as that on health-led home visiting, had been undertaken in the USA. In addition, much of the research identified, although relevant to some aspect of the health visitors' role, was not specifically concerned with health visitors or conducted by researchers with a background in health visiting. For example interventions such as health-led home visiting or parenting programmes were not always delivered exclusively by health visitors. The majority of the studies specifically concerned with health visitors were qualitative, observational or reflective.

Barriers to evidence informed policy relating to health visiting

One of the major barriers to evidence informed policy around health visiting is the lack of relevant high quality research. In particular there is a lack of quantitative evaluations such as RCTs (Cowley and Bidmead, 2009). Cowley and Bidmead suggest that reasons for this may include limited research capacity within health visiting, low availability of research funding or the need to develop the theory base of approaches used as a necessary precursor to testing their effectiveness. Confusion around the exact nature of the health visitors' role, the falling numbers of health visitors and issues around the status of health visiting may also have had a negative impact on research. However, health visitors appear to be central to the Government's public health agenda and this, coupled with calls for an

increase in health visitor numbers, may improve the status of health visiting and promote future research.

Clearly a range of research methodologies can inform the role of the health visitor.

Qualitative research can inform the design and development of interventions and it has been suggested that UK researchers have produced a great deal of qualitative research which could provide the theoretical basis for evaluations of UK based programmes and approaches (Cowley and Bidmead, 2009). Case-control and cohort studies by identifying modifiable risk factors may provide a focus for prevention activities and interventions.

However, the final stage in the information chain is the evaluation of interventions in controlled studies such as RCTs. Whilst randomised controlled trials are not necessarily appropriate for evaluating the health visiting profession as a whole they may be suitable for evaluating components of the health visiting role, or particular aspects of training or organisation (Cowley and Bidmead, 2009).

A lack of research is not the only barrier to evidence-informed policy. When considering the possible impact of research upon the policy process researchers need to be aware of the complex relationship between research and policy. Policy making is driven by many factors including ideology, value judgements, financial and economic considerations, political expediency and intellectual fashion (Davis and Howden-Chapman, 1996). Also ideas about what constitutes 'evidence' may vary between research disciplines and between researchers and policy makers. In addition, there is the issue of timeliness. There may be a fundamental mismatch between the time related demands of the policy process and researchers ability to produce research. Research may take too long to be useful to policy

makers (Campbell, 2007). High quality large scale evaluations may take some years to complete and are costly.

Limitations

There are a number of methodological issues that could have a bearing on the validity of these results. Although we gave consideration to what we meant by health visiting research this definition was, perhaps unsurprisingly, slightly ambiguous. In addition, the scope of the study was very broad and although we attempted to consider most aspects of the health visiting role it is possible that we missed some important aspects. We restricted our evaluation to research that more directly concerned health visitors although there is, of course, much research in many disciplines that may provide the basis for aspects of the health visitors' role, such as in health promotion. To include all such research was, however, beyond the scope of this evaluation.

Commentators have previously pointed out how difficult it can be to identify the impact of research, particularly the impact upon policy (Hanney, 2007). An analysis such as ours runs the risk of either overstating the influence of research or missing examples of impact, particularly of conceptual or symbolic impact. We used multiple methods to overcome some of these difficulties and contacted researchers to obtain examples of local and indirect impact. Like other researchers evaluating impact we found interviews with researchers provided information not available through documentary or bibliometric analysis (Kalucy et al., 2009). However, although very useful not all researchers responded to our questions so the information we obtained was limited and potentially biased towards those aware of

examples of impact. In addition, information from policy makers may have helped clarify the role research evidence played in their decision making processes.

Although the citation analysis was useful in indicating the impact research papers may have had in the research community in reality it told us little about the impact of the studies on the development of policy. This was because most of the citing documents were other research papers rather than policy documents. Indeed, citation analysis is a proxy measure not yet satisfactorily proven to be linked to impact (Hanney, 2007). In addition our citation analysis should be interpreted cautiously as we did not consider the rate of self-citation or the impact of the citing journals or papers and many of the papers had been published relatively recently and, therefore, may not have had time to impact on policy. Furthermore, both the papers for the citation analysis and the researchers approached for further information were selected samples and, therefore, cannot be considered to be representative of health visiting researchers as a whole. There is the possibility that we may have missed important studies. However, the use of a variety of methods should reduce the possibility that we missed important examples of impact.

CONCLUSIONS

Health visitors are central to the delivery of the UK Governments public health agenda concerning young children and their families. There is a growing emphasis on the use of evidence to evaluate interventions and to inform the development of health care policy.

Although health visitors have produced important research that has influenced health care

policy in the UK there is a need for more research to underpin the role of the health visitor. High quality evaluations should be an integral part of future programmes and practitioners, policy makers and researchers should be involved in prioritising research topics. By rigorously testing and refining strategies we will make the best use of resources for health visiting and provide a sound base on which to proceed. To ensure this research capacity amongst health visitors may need to be facilitated and adequate research funding made available.

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