

Thou shalt versus thou shalt not: a meta-synthesis of GPs' attitudes to clinical practice guidelines

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ABSTRACT

Background

GPs' adherence to clinical practice guidelines is variable. Barriers to guideline implementation have been identified but qualitative studies have not been synthesised to explore what underpins these attitudes.

Aim

To explore and synthesise qualitative research on GPs' attitudes to and experiences with clinical practice guidelines.

Design of study

Systematic review and meta-synthesis of qualitative studies.

Method

PubMed, CINAHL, EMBASE, Social Science Citation Index, and Science Citation Index were used as data sources, and independent data extraction was carried out. Discrepancies were resolved by consensus. Initial thematic analysis was conducted, followed by interpretative synthesis.

Results

Seventeen studies met the inclusion criteria. Five were excluded following quality appraisal. Twelve papers were synthesised which reported research in the UK, US, Canada, and the Netherlands, and covered different clinical guideline topics. Six themes were identified: questioning the guidelines, GPs' experience, preserving the doctor-patient relationship, professional responsibility, practical issues, and guideline format. Comparative analysis and synthesis revealed that GPs' reasons for not following guidelines differed according to whether the guideline in question was prescriptive, in that it encouraged a certain type of behaviour or treatment, or proscriptive, in that it discouraged certain treatments or behaviours.

Conclusion

Previous analyses of guidelines have focused on professional attitudes and organisational barriers to adherence. This synthesis suggests that the purpose of the guideline, whether its aims are prescriptive or proscriptive, may influence if and how guidelines are received and implemented.

Keywords

attitudes of health personnel; general practice; guideline adherence; guidelines; meta-synthesis; qualitative research.

INTRODUCTION

Clinical practice guidelines have become a common tool for promoting quality and equity of services, and controlling costs. However, their impact on practice is highly variable.^{1,2} A range of barriers to evidence-based practice and successful guideline implementation have been identified and are variously ascribed to organisational, clinician, and patient factors; the process of guideline implementation; and to guideline quality and quantity.³⁻¹⁰ A recent review of quantitative studies of GPs' attitudes to implementation provides an overview of the frequency and distribution of attitudinal barriers to guidelines, but does not offer an understanding of what underpins these.¹¹

While there have been several qualitative studies exploring GPs' attitudes towards guidelines, there has been no attempt to review and synthesise their findings systematically.¹

Methods for systematically reviewing quantitative research are well established, but comparable methods for synthesising the findings of qualitative research are less well developed and can be regarded as an emerging area of methodology. This is partly because of concerns that aggregating the findings of qualitative studies destroys the integrity of individual studies.¹² Notwithstanding these objections, some success has been achieved in synthesising qualitative research using several different techniques.¹³⁻²¹

The present study was a systematic review and synthesis of qualitative studies of GPs' attitudes to

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Submitted: 24 May 2007; **Editor's response:** 24 July 2007;
final acceptance: 3 September 2007.

©British Journal of General Practice 2007; 57: 971-978.

How this fits in

While clinical practice guidelines have become prevalent, GPs' adherence to guidelines varies. Barriers to guideline implementation, including GP attitudes, have been identified, but qualitative studies have not been synthesised to explore what underpins these attitudes. This study indicates that GPs' attitudes to guidelines are systematically influenced by whether the guideline is prescriptive or proscriptive. This novel understanding can inform the development and implementation of clinical practice guidelines.

and experiences with the use of clinical practice guidelines.

METHOD

Selection criteria

A search was carried out for papers:

- that reported results of qualitative (that is, text-based and interpretative) analysis based on data collected through focus groups or open interviews;
- whose participants were GPs;
- that focused on experiences and attitudes towards the use of clinical practice guidelines, defined as 'systematically-developed statements to assist practitioner decisions about appropriate health care for specific clinical circumstances';
- that were published in either English, Spanish, or a Scandinavian language.

Identification and selection of relevant studies

Five electronic databases were searched: PubMed, CINAHL, EMBASE, Social Science Citation Index, and Science Citation Index, from their inception dates until November 2006. Search strategies were developed for each database in collaboration with a librarian and included each of the following categories: GPs, clinical practice guidelines, experience/attitudes and interviews/focus groups (Supplementary Table 1).

All retrieved titles and abstracts were assessed along with independently-identified studies that fulfilled the selection criteria. Full-text versions of the chosen papers were independently assessed, and disagreements about inclusion were resolved through discussion. Studies were excluded if they were insufficiently focused on the topic, if the guidelines were assessed during the process of development and introduction, or where it was not possible to distinguish between data from primary healthcare physicians and other participants. Studies were also excluded if they used qualitative data-collection methods, but made no use of qualitative methods of analysis. Studies using mixed methods were eligible for inclusion provided it was possible to extract findings derived from qualitative research.

The quality of papers was assessed using an adaptation of the Critical Appraisal Skills

Programme (CASP) quality-assessment tool for qualitative studies.²²

Analysis

Analysis used a broadly comparative case-study approach informed by tools and techniques outlined in the narrative synthesis framework.²³ The selected studies were read and reread. Key themes and categories were identified, much as they would be in primary qualitative research. Searching for themes continued until all the studies were accounted for and no new themes were discerned. The definitions and boundaries of each of the emerging themes were discussed to see how these could be developed. The initial lists of themes and their dimensions were refined and used as the basis of charts (or matrices), derived from an approach described by Miles and Huberman,²⁴ which allowed the themes to be displayed for a number of studies. These charts summarised key information about each study (author, date, country, study characteristics) and facilitated detailed comparison of each theme across the 12 studies. The charts underwent several revisions and further refinement and grouping of the themes until it was possible to synthesise the studies.

RESULTS

Seventeen studies were identified that met the inclusion criteria, five of which were excluded following quality appraisal (Figure 1). The reason for these exclusions was the belief that the authors' findings were not consistent with or reflective of the data presented. The remaining 12 studies were published between 1998 and 2006,²⁵⁻³⁶ and were all published in English (Supplementary Table 2). Five of the studies were from the UK, while the remaining seven were from the US, Canada, and the Netherlands. The guidelines in these studies covered a variety of topics, including treatment, prevention, and screening, and mental and physical health, and they were related to adult, older, and child patients. Seven of the studies used focus groups, while five used interviews as their method of data collection. Most of the studies focused on barriers to GPs' use of guidelines, while some reported both negative and positive attitudes and experiences.

Themes

Six broad themes were identified, which are described in Table 1. Quotes that are used were chosen because they expressed common interpretations by the authors.

1. Questioning the guidelines

This theme occurred in all studies and contained a number of linked sub-themes.²⁴⁻³⁵ Studies indicated that some GPs were sceptical about the evidence

base for guidelines, for example, they argued that population-based trials were not necessarily applicable to individual patients.^{25-27,29,30,33,35} GPs also pointed out that the use of narrow inclusion criteria could weaken the applicability of the evidence from trials. Cranney *et al*²⁶ report:

'Although GPs largely were willing to practice evidence-based medicine, some expressed a concern about applying guidelines based on trial data to their own patients. Guidelines were often viewed as having been developed by enthusiasts, outlining 'ideal' practice which did not always translate to typical patients within practices with differing demographics.'

GPs expressed uncertainty about the evidence base in the face of changes over time and controversies.^{25,34,35} They also suggested that there could be a conflict between the aims of the guidelines and the motivations of GPs; the former relating to cost containment, the latter relating to patient care.^{25,29,30,35,36} Guideline authorship influenced the credibility of guidelines,^{25,27,28,32,34-36} and GPs tended to be more positive towards guidelines authored by peers or approved of in the local medical community as Pathman *et al*²⁸ found:

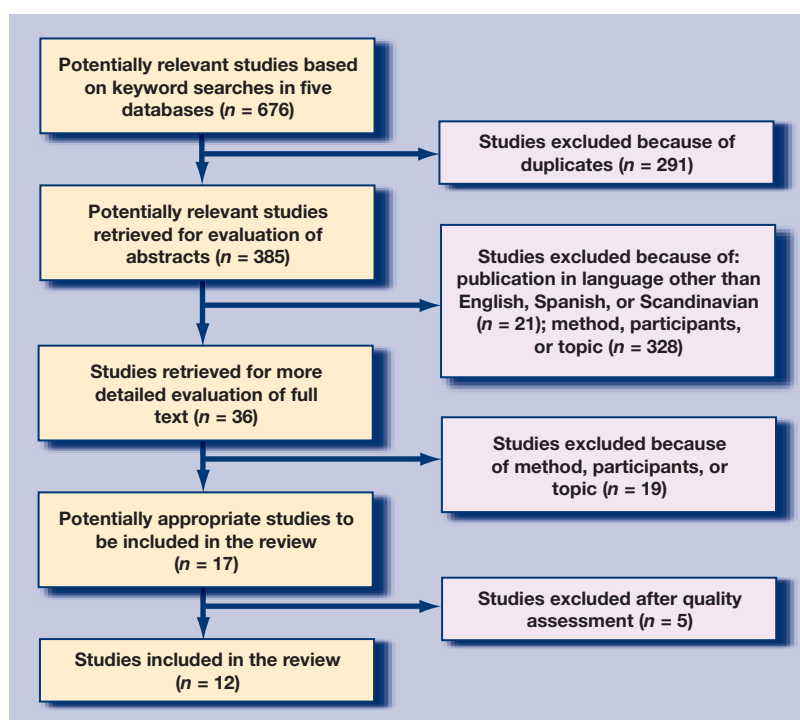
'When recommendations from two immunisation authorities differ, physicians tended to follow those of their own academy.'

2. GPs' experience

All of the studies report that GPs described a tension between their own experiences and the guideline recommendations, and that GPs saw consultations with real patients as more complicated than their portrayal in the guidelines.²⁴⁻³⁵ Guidelines were experienced as not flexible enough to take into account the complexity of individual circumstances, such as multiple diagnoses, painful side-effects, and patient preference:

*'A very interesting finding is that comorbidity in the elderly and the complexity of UI [urinary incontinence] often result in a dilemma, because GPs and patients have to decide which medical problem will receive priority. UI is not always experienced by patients as the most serious problem threatening the quality of life.'*³³

GPs' desire to respond to patients' needs and requests sometimes conflicted with the guideline recommendations, and empathy for patients that are suffering or anxious was mentioned as a factor that overruled guidelines in decision making:



*'The physicians also suggested that patients' anxieties about cancer were important. The higher the perceived anxiety, the more likely they were to order the relevant cancer screening test, even if the recommendations were unclear.'*³⁴

Figure 1. Study inclusion/exclusion process.

Interestingly, two studies showed that guidelines could be marshalled as a negotiating tactic when refusing patients' requests.^{35,36}

3. Preserving the doctor-patient relationship

In some of the studies, fear of jeopardising the relationship with the patient was mentioned by GPs as a reason for non-adherence. If guideline recommendations implied rationing services, the importance of preserving a good doctor-patient relationship was sometimes cited as more important than following the guidelines.^{25,27,29,31,34} However, a long-lasting and trusting doctor-patient relationship could be judged by the GP as strong enough to endure a rationing decision. Continuity of care could thus enhance guideline adherence.³⁴

*'Decisions about cancer screening took place within an interactive relationship between the patient and physician ... the stronger and more positive the relationship, the more likely that the physician would feel free to engage the patient in a discussion about not performing a test.'*³⁴

4. Professional responsibility

GPs in several studies mentioned risk aversion in relation to use of guidelines.^{25,27,29,32,34,35} Motives for

defensive practice included the emotional burden of missing a diagnosis, and fear of litigation. This was particularly the case when guidelines supported rationing. Although there was some sense that guideline adherence could protect the GP in a possible legal process, defensive practice seemed to be a more common strategy than following guidelines.

*'... they [participating GPs] felt a strong responsibility to not miss a diagnosis when a patient specifically requested a 'check up'. The issue of guilt seemed very important. All of the physicians who participated indicated that it was easier to live with not following guidelines than with having missed a diagnosis.'*²⁵

An alternative view was provided by three papers that reported that GPs did not see guidelines as providing fixed rules for practice; instead, they felt it was the responsibility of the GP to adapt guidance to suit circumstances.^{27,34,35}

5. Practical issues

In most of the studies, GPs referred to a lack of time to read and assess the guidelines, follow the recommendations, and negotiate with patients,^{26-30,32-36} leading Langley and colleagues to refer to GPs' 'white rabbit persona'.²⁷ Other practical constraints, including convenience, lack of skills with new procedures, and lack of resources, were also referred to:

*'The reason why a lot of time is required was that in elderly patients it was usually more difficult to explain the therapy, and that older patients were less mobile so you had to visit them at home.'*³³

6. Guideline format

Some studies also referred to the guideline format as an important determinant of GPs' attitudes.^{25,27,28,32,34} There was some consensus that guidelines needed to be short and simple and include patient leaflets.

Synthesis

Once key themes were identified, the next phase of the synthesis was to explore patterns in the distribution of these themes. This began by comparing and contrasting the themes against the country in which the study took place, the health issue, the method of data collection (focus groups or single interviews), and whether the study was about specific guidelines or guidelines in general. No systematic pattern connected to any of these traits was found.

Scrutiny of the thematic tables suggested that one key factor was related to the nature of the guidelines: whether the guidelines encouraged or discouraged particular interventions or behaviours. Guidelines that

encouraged the use of particular interventions were defined as prescriptive, while those that discouraged use were defined as proscriptive (Table 1). This distinction must be seen in relation to how guidelines influence current practice; that is, whether the clinicians are asked to perform new or more interventions or whether they are asked to reduce or end current activities. This classification was based on the authors' descriptions of the nature and purpose of the guidelines in relation to current practice. When this information was unavailable, the classification was based on implicit information in the findings about whether following the guideline in question would imply an increase or reduction in activities.

Based on this information, it was found that there were five prescriptive guideline studies,^{26,28,30,33,36} and five proscriptive studies.^{25,29,31,32,34} Two studies were classified as mixed studies,^{27,35} as they investigated several different guidelines (Table 1). This study focuses on the thematic patterning according to this prescriptive and proscriptive distinction.

In the prescriptive studies authors focus on the difficulties GPs experience when attempting to adapt recommendations to the circumstances of the individual patient and to the practical constraints of the consultation. In the proscriptive studies the focus is on the dilemmas of combining the role of gatekeeper and the role of patient advocate; such studies refer to GPs' concerns that rationing may harm the doctor-patient relationship or even lead to litigation.

These patterns are clearly reflected in the charting of findings in Table 1. Two themes were exclusively found in proscriptive studies: 'preserving the doctor-patient relationship' (four of the five proscriptive studies), and 'professional responsibility' (four of the five proscriptive studies). Among the prescriptive studies, the theme entitled 'practical issues' was found in all of the studies, but it was found in only three of the proscriptive studies.

DISCUSSION

Summary of main findings

The findings of this study suggest that GPs claim some reasons for not following guidelines more often than others. Concern for the individual patient's needs coupled with scepticism about applying research findings to individuals seem to be the most important arguments.

This meta-synthesis also shows that there are different barriers to guideline implementation according to whether the guideline is prescriptive or proscriptive. The difference between prescriptive and proscriptive studies was most evident in the themes relating to the doctor-patient relationship and professional responsibility.

Table 1. List of studies, extracted themes and findings; factors influencing clinical practice guideline (CPG) adherence.

Study	Health topic	Type of CPGs	Questioning the guidelines	GPs' experience	Preserving the doctor–patient relationship	Professional responsibility	Practical issues	Guideline format
Cranney <i>et al</i> 2001 ²⁶	Hypertension in older people	Prescriptive	Concern about applying CPGs based on trial data to own patients	Older people seen as special group with other, more significant problems; more side-effects; poor compliance	–	–	Lack of time and skills for recommended method	–
Pathman <i>et al</i> 1998 ²⁸	Pediatric immunisation	Prescriptive	Conflicting CPGs confusing; prefer peer authors	CPGs not applicable to patient population or individuals; concerned with patients' insurance; share choice with patients	–	–	Recommended method not practical	CPGs not easy to read
Putnam <i>et al</i> 2001 ³⁰	Asthma	Prescriptive	Disagree with some CPGs; think universal testing is a waste of resources; doubt reliability of testing in children; concern about relevance of evidence to own patients	Reluctance to change practice because of test results; non-adherence when patients were reluctant; concern patients' resources	–	–	CPGs unclear; lack of specialists	–
Teunissen <i>et al</i> 2006 ³³	Urinary incontinence	Prescriptive	Belief that therapy is not effective in older patients; complexity of problem, comorbidity barrier to adherence	Low patient motivation for therapy; CPG not relevant because older people accept urinary incontinence	–	–	Lack of time and technical skills	Hard to understand
Wathen and Dean 2004 ³⁶	Drug prescribing	Mostly prescriptive	Concern over safety, effectiveness and costs of treatment; conflicting advice from different sources; do not trust NICE	Negative experience of CPG treatment; patients non-compliant; CPGs help negotiate with patients	–	–	Adherence impossible due to practicalities	–
Beaulieu <i>et al</i> 1999 ²⁵	Preventive health care	Mostly proscriptive	Interventions not useful to population may be useful to individual; cost issues behind CPG; changing evidence, controversy; trust peers and local experts, not government or industry	Resistance to discontinuing usual practice	Ignore CPG; annual check-up builds trust in doctor–patient relationship	Ignore CPGs to not miss a diagnosis; and feeling of responsibility	–	Complex to explain to patients
Pollock and Grime 2003 ²⁹	Gastric disorders	Proscriptive	Despite CPGs, did not consider rationing of drugs cost-effective	Conflict: clinical needs versus rationing; feel for patients' suffering	Protecting relationship more important than CPG	Some resist loss of autonomy; others: avoid responsibility	Pragmatic responses to situational constraints	–
Schers <i>et al</i> 2001 ³¹	Low back pain	Proscriptive	Doubt benefit of advised treatment; disagree with CPG that radiographic films elicit medical dependency	CPGs not applicable to daily practice; adapt to patients' situation, needs, and demands	Non-adherence; order radiography to build relations with patients	–	–	–
Smith <i>et al</i> 2004 ³²	Depression	Mostly proscriptive	Many disagree with CPG; prefer central multidisciplinary team of authors including GPs; confused; conflicting CPGs	CPG ignores comorbidity; CPG insufficiently flexible for variety of patients; empathy for patients suffering	–	Medico-legal concerns lead to defensive practice	Lack of time and specialists	Format important
Tudiver <i>et al</i> 2001 ³⁴	Cancer screening	Proscriptive	Confusion; conflicting and changing CPGs; trust clinical experience; trust GP authors, not specialists	Individualise CPGs to patient's needs; patient expectations, demands, and anxiety influence adherence	Quality of relationship influences GP adherence	Defensive practice; CPGs not mandatory	Influenced by lack of time and economic incentives	CPGs must be clear
Langley <i>et al</i> 1998 ²⁷	Guidelines in general	Mixed	CPGs based on hospital research, not applicable to individuals; changing evidence; ownership to CPGs matters; trust local source and peers	Use CPGs if fit with own practice; adjust CPG to individuals; promote compliance; non-medical needs	CPG implementation depending on relationship with patient	Clinical autonomy versus standardisation; CPG not rule; adjust to circumstances	Lack of time, organising and IT skills	Prefer simple patient information

Table 1 continued: List of studies, extracted themes and findings; factors influencing clinical practice guideline (CPG) adherence.

Venn and Edwards 2003 ³⁵	Guidelines in general	Mixed	CPGs do not reflect clinical priorities; politics/ industry influence; CPGs change; rationing and patient advocate conflict; population-based evidence does not apply to individuals	CPGs not practical when treating individuals; comorbidity; CPG helps GP to say no with government backing	–	CPGs not authoritative but could matter in court; responsibility for patients most important	Lack of time, CPG volume, organising
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CPGs = clinical practice guidelines.

Comparison with existing literature

The main themes identified in this study are similar to those found in quantitative studies of guideline adherence.^{3,5–7,11} The present findings offer reasons as to why some GPs do not follow guidelines; these mainly relate to individual patient needs. The findings fit well with studies of why evidence is not implemented in general practice,^{37–39} and echo the critique repeatedly made of evidence-based medicine compared with experience-based knowledge.^{40–42} Population-based trial results are difficult to transfer to the individual patient and this reflects ‘the inherent uncertainty of medical evidence’.⁴³ GPs’ concerns about the generalisability of trial results is an issue that has long been recognised and needs to be addressed by the scientific community.⁴⁴

Proscriptive guidelines may entail rationing and denial of patients’ requests, thereby jeopardising the doctor–patient relationship. This dilemma has been noted and debated;^{45–52} studies reporting this dilemma note that such rationing is both unpleasant and in conflict with the ideals of a patient-centred medicine and the economic incentives of competition for patients.

Prescriptive guidelines are essentially innovative and the implementation of such guidelines is likely to draw on models of the diffusion of innovation, such as those suggested by Eccles and Grimshaw,⁵ and earlier sociological work by Rogers *et al*, which has informed action research in health promotion.^{53,54} This literature offers advice on how to overcome practical barriers.⁵⁵

Strengths and limitations of the study

The focus of this study was confined to guideline adherence to ensure that there was a manageable number of comparable studies. As the aim of this study was to provide a synthesis that could complement studies assessing the effectiveness of guideline implementation, it was decided not to include studies of adjacent fields, such as GPs’ attitudes to research evidence, or other health workers’ attitudes to guidelines, although both of these fields of study have identified many of the same attitudes to implementation. Studies of low quality were also excluded. As noted previously, techniques

for synthesising the findings of qualitative research are an emerging area of methodology. One field of discussion is whether and on what grounds studies should be excluded. Quality criteria vary in importance, but the failure by authors to show a clear connection or consistency between the primary data and the categories they have developed is a serious enough weakness to warrant exclusion.

While the goal of this review was to investigate GPs’ experiences and attitudes towards guidelines, most of the studies focused on barriers to their use. It is possible that other data may have emerged if these studies had focused on GPs’ experiences in general, or on facilitators to the use of guidelines.

It is worth noting that the distinction between proscriptive and prescriptive guidelines is not always clear or exclusive. For instance, guidelines recommending that patients who are using a particular medication switch to generic alternatives include rationing elements but possibly also innovative aspects as GPs and their patients are asked to try something that is perceived as new. Moreover, this study’s categorisation of the guidelines is based on the way they are presented and interpreted in relation to current practice by the authors of the original papers. It was noted that information about how guidelines relate to current practice was lacking in several papers. Hopefully, the findings of the present study will prompt future authors to include such information.

The included studies describe GPs’ justifications of why they do or do not follow guidelines. It is not possible, of course, to be certain that these accounts are truthful or that they reflect behaviours. GPs may attempt to rationalise lack of adherence to prescribing guidelines,²⁹ and there is some evidence that there may be a bias towards over-reporting adherence to guidelines.⁵⁶ Nevertheless, understanding the different arguments put forward by GPs, and the important distinction between proscriptive and prescriptive guidelines may help in the future development of guidelines and implementation strategies.

One limitation of narrative synthesis is that the quality of the synthesis depends on the quality of the included studies. Primary studies frequently offer

insufficient information about the context of the study, including the interviewer's background and possible influence, and lack of reporting of the data. In this synthesis, a lack of information about the degree of structure in the interviews was also noted. It was frequently unclear whether the emerging barriers were results of free discussion or pre-presented categories. To overcome some of these limitations, studies were excluded if they did not demonstrate consistency between presented data and authors' interpretations.

Notwithstanding the above limitations, the authors would argue that this meta-study offers a bigger picture than would be gained from reading any one study in isolation; the synthesis augments the qualitative research process through a formal and auditable process, and this disputes the relativist position that synthesis is not legitimate because it destroys the integrity of individual studies. Studies were deliberately chosen from a similar setting (general practice) and attention was paid to the context, participants, and clinical topic of each study, but it was not possible to extract findings of interest beyond the individual studies. The synthesis allowed a demonstration of patterns that would otherwise have been missed, and provides hypotheses for further investigation.

Implications for future research or clinical practice

GPs' attitudes towards guidelines appear to be similar across countries and health topics. However, this synthesis of qualitative literature suggests that GPs' attitudes to guidelines may be influenced by the purpose of the guidelines. Literature on diffusion of innovation is likely to be helpful in increasing adherence to prescriptive guidelines, but adherence to proscriptive guidelines also needs to be understood in terms of the doctor–patient relationship and could perhaps be best addressed using economic and psychological theory.

While the challenges of face-to-face rationing as well as those arising from the introduction of new medical technologies have been highlighted, studies of guideline adherence have not taken into account the significance of different rhetoric used for prescriptive and proscriptive guidelines. Further research, for example, a subgroup analysis of the effects of interventions to promote the use of guidelines (such as the work of Grimshaw *et al.*),¹ may be able to detect behavioural differences that map onto these attitudinal findings.

This paper provides an example of how qualitative studies can be synthesised, and a novel understanding of the barriers to the use of guidelines in general practice. Hopefully this will inform

synthesis methodology as well as the future development of clinical practice guidelines.

Supplementary information

Additional information accompanies this article at <http://www.rcgp.org.uk/bjgp-supinfo>

Funding body

Solely sponsored through a grant (175449/V50) from The Research Council of Norway by contract with the Stein Rokkan Centre for Social Research

Ethics committee

Ethical approval was not required as the study only draws on already published material

Competing interests

The authors have stated that there are none

Acknowledgements

The authors would like to acknowledge the contribution of research librarian Marit Johansen, at the Norwegian Knowledge Centre for the Health Services, for assisting in the literature search

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