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RESEARCH



The use of evidence during group meetings of Dutch general practitioners

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ABSTRACT

Background and Objectives: For Evidence Based Medicine (EBM) learning journal clubs are recommended, but these are not common practice. How participants discuss and learn about applying evidence in other group meetings is unknown. We examined different types of group meetings and explored the use of, and discussions about, clinical research evidence.

Methods: A mixed-methods study design was adopted. After distribution and analysis of a questionnaire about types of group meetings, interviews were conducted to better understand the most frequently occurring type.

Results: GPs have different types of meetings, but the most common group meetings where evidence was discussed were so called quality circles, i.e. pharmacotherapy audit meetings in which GPs discuss drug prescription figures or preferred treatment together with pharmacists. Interviews showed that the source of evidence used mostly are the recommendations in the national GP guidelines. The underlying evidence or new research did not play an important role in the discussions.

Conclusions: Quality circles seem to be more goal-oriented than learning oriented. Learning discussions about controversies in clinical research or about the integration of evidence, patient values and clinical expertise occurred infrequently. To harvest the potential value of group meetings for EBM learning, quality circles in their present design are not optimal.

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What is already known in this area:

Using journal clubs to enhance skills and knowledge to implement Evidence Based Medicine (EBM), is not common practice in General Practice yet other types of group meetings are popular

What this work adds:

An overview of the different types of group meetings GPs in Netherlands attend and whether they use – and discuss clinical research evidence
An understanding how evidence within one of these meetings, pharmacotherapy audit meetings or 'quality circles', is used
Insight into whether 'quality circles' provide opportunities to learn to practice EBM

Suggestions for future work or research:

Studies to compare learning in 'quality circles' with and without support


Introduction

Practising evidence-based medicine (EBM) is considered important in health care, also in the field of general practice [1–5]. EBM is the integration of clinical expertise, patient values and the best available clinical evidence into daily clinical practice. General practitioners (GPs) need EBM skills to individualize patient care and go beyond the guidelines [6]. Group meetings with discussions about clinical research evidence, in guidelines and in original scientific papers, are useful to enhance skills and

knowledge necessary to practice EBM. The journal club is a recommended type of meeting.

In a journal club, individuals regularly discuss current research articles [2,7], which might close the gap between research and clinical practice [2,8,9], and learn clinical-epidemiological knowledge, necessary for critical appraisal of research findings. The effectiveness depends on the design of the meeting: time, resources, and set up of discussions on clinical applicability [2].

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GP journal clubs have been studied in different countries [10–12]. They do not appear to be widespread practice. Because we anticipated that was the case in the Netherlands, we explored several types of GP group meetings where results of clinical research could be discussed. We focussed on group meetings, because practice based small group learning appears to be popular with GPs [13]. Moreover, discussion groups in the workplace have been suggested for professional development of doctors [14]. What is not known is whether and how GPs take part in collaborative learning groups [15].

This study describes several types of GP group meetings in the Netherlands and explores their characteristics, especially regarding the use of, and discussions about, results from clinical research evidence. We aimed to understand how evidence within such groups is used.

Methods

We used a mixed methods approach. A questionnaire that we developed ourselves was distributed and analysed. Interviews were then performed.

Sampling

During one of their training days, GP supervisors for the GP specialty training at the University Medical Centre Utrecht (NL), were asked to fill out our questionnaire. A random sample ($n = 12$) of the supervisors was invited to be interviewed. Six GPs agreed and gave informed consent. Additionally, a convenience sample of 12 supervisors, GPs who had not filled out the questionnaire, were interviewed. In total 18 interviews were performed.

Data generation

Questionnaire

The questionnaire's design was based on literature on aspects relevant to conducting effective group meetings (see Supplementary Material). Completing the paper questionnaire took ten minutes at most. The GPs were asked to write their name on the questionnaire to enable inviting them to subsequent interviews. Informed consent was obtained for the anonymous use of their data. From the questionnaire, we obtained topics to be examined in more depth in the interviews.

Interviews

As journal clubs were almost non-existent, drug quality circles were evaluated in more depth because they were attended by all GPs and their characteristics offered most opportunities for EBM learning. Quality circles are pharmacotherapy audit meetings in which GPs discuss drug

prescription figures or preferred treatment together with pharmacists. One of the researchers (BtB) conducted semi-structured, face-to-face interviews at the University Medical Centre Utrecht or in the GPs' clinical practice. GPs had given verbal informed consent before the interview started. GPs were asked to keep one specific meeting of their quality circles in mind. None of the researchers was involved in the assessment of the participating GP supervisors. The interviews consisted of open questions grouped into three themes: how did the quality circle meeting go, what were their reasons for taking part and how was research evidence brought up? Each interview lasted on average 30 min. First, a pilot interview was conducted, and questions were adjusted where necessary.

Analysis

Questionnaire

Frequencies and percentages of the answers to the questionnaires were computed with SPSS 22.

Interviews

All interviews were audio-recorded and transcribed verbatim. Using NVivo 10 we did a thematic analysis of the transcripts: combining a deductive- and an inductive approach, to remain open for emergent findings. One researcher (BtB) applied open coding on two interviews and, after discussion among researchers, another researcher (EdG) open coded four additional transcripts. Based on discussions among the researchers a codebook was established. Two researchers (EdG, MLB) applied the codebook independently on two more transcripts. After adjustments, a final codebook was agreed upon, and the first researcher (BtB) coded the remaining transcripts. Findings from the first round of analysis were used to adjust the interview protocol with less focus on the role of GP trainees present and on other group meetings than quality circles. Twelve extra interviews were conducted, coded, and with axial coding, the emerging themes were tested.

Results

Questionnaire

Seventy-eight of the 128 supervisors filled out the questionnaire. GP group meetings reported here are the group meeting with colleagues at their general practice (practice meetings), pharmacotherapy audit meetings about drug prescription figures (quality circles), diagnostic test audit (DTA) meetings and journal clubs. Quality circles (80%) and practice meetings (90%) were attended most frequently by the GPs at least once every three months.

The DTA meetings were attended by 10% of the respondents at least once every three months. Journal clubs were uncommon; just 3 respondents indicated that they ever attended. We did not evaluate these further. Ninety-four percent of practice meetings were attended by up to 12 participants with GP trainees or physician assistants often present (68 and 76%, respectively). Of the quality circles, 93% were attended by at least six participants with both GPs and pharmacists always present. GP trainees regularly attended these meetings (86%). Over two-thirds (26/36) of the DTA meetings were attended by up to 12 participants. The practice meetings did not last longer than an hour usually (63%). A meeting of a quality circle or a DTA meeting lasted over an hour (66 and 65%, respectively).

Evidence in group meetings

To back up arguments during meetings, the clinical practice guidelines of the Dutch College were most often used; in quality circles (89%), DTA meetings (62%) and practice meetings (44%). During quality circles, expert-based opinion and benchmarking (comparisons of prescription figures between practices) were other important means of backing up an argument (71 and 60%). In a DTA meeting benchmarking and expert-based opinion were important as well (57 and 48%). The practice meeting was the only group meeting where expert-based opinion was most often used to back up an argument (53%) rather than the guidelines (44%).

Interviews

The questionnaire revealed that quality circles were the most frequently attended group meeting. Interviews were conducted to get a better understanding of how quality circle meetings take place, and whether they offer opportunities for achieving learning goals or other goals associated thus far with journal clubs.

In quality circles, a small number of GPs and pharmacists meet. Experts and pharmacists provide evidence-based information and give feedback on prescribing patterns. Most meetings begin with a presentation, often including a case presentation, prepared by a GP and a pharmacist. Often a clinical case is included in the presentation. In some quality circles, discussions focus on the guidelines and on clinical cases from the presentation. In other quality circles, the main topic is the prescribing figures. Both groups did not differ on the set-up of their meetings.

According to most respondents, the goal of the quality circle meeting is to reach an agreement about prescribing behaviour aiming for consensus. Some groups reflect on previous agreements and compare clinical practice with

prescribing figures, while others try to contextualise theoretical knowledge, from guidelines or presentations by experts, to their clinical practice.

Use of evidence

Guidelines played a role before their meetings while preparing a presentation, and were discussed by some quality circles during the meeting. When a dispute occurred regarding the interpretation of a guideline, they considered the footnotes in which evidence for a recommendation (if available) is described. Participants appeared to accept research findings described in guidelines or in the literature to be valid, without further discussion.

Generally, facts are accepted as such and not really discussed. GP17

When I read 'GP and Science' [...], then I always assume that the content is true. However, at times this turns out to be wrong. You have to look critically into these papers, but I do not feel like it. I think: well, the editor of the journal should do so. But I know that actually you should do so yourself. (GP5)

Important sources of evidence are specialists who lecture during meetings, although some mentioned that a lecture limits the discussion. Participants valued their own personal experience, and primarily judged sources from that perspective. They incorporated the patients' perspective in their contributions to the meetings, but this perspective was not a source of debate. Challenges in reconciling the wishes and values of their patients with the research evidence, or cases in which the general recommendations were not applicable were mentioned in the group, but not discussed in depth.

[...] a woman who developed atrial fibrillation recently, and who wondered about the need for {drug A}. She was very afraid of cerebral haemorrhage because her mother had had a cerebral haemorrhage. She absolutely did not want that. In such a case {drug A} was, I think, superior to {drug B}. (GP12)

GPs in quality circles mostly talked about their experience regarding guidelines or evidence. Does a specific approach seem feasible? Do the findings relate to their personal experiences in the consultation room?

Often we speak about our own experiences, for example regarding statins and benzodiazepines, concerning side effects or the motivation to take or not to take certain drugs. (GP17)

Understanding meetings of quality circles

With our questionnaire, we found that GPs have two purposes for attending quality circles: quality improvement and lifelong learning. During the interviews, assumed or actual quality improvement, as a result of agreements about prescribing, emerged strongly. Most respondents

stressed the importance of agreements and reaching consensus about those, as well as checking whether participants abide by those agreements.

Well, generally the discussion quickly comes down to making sound agreements. Not so much substantive discussion. (GP17)

For me it only gets interesting when we work towards a testable agreement. (GP12)

Lifelong learning was less prominent in the interview. Respondents infrequently reported it as the purpose of quality circles, but they endorsed the importance of lifelong learning when prompted. Participants learned facts about new pharmaceuticals and brushed up their knowledge of guidelines. Also, they learnt from comparing their prescribing figures. Even though some respondents mentioned delving into the footnotes when a difference in opinions occurs, it was not common.

This does not occur frequently, often GPs assume when being told something should be done in a certain manner, they trust it. (GP2)

Opinions about science

Even though reading and discussing primary studies did not play an important role during the quality circle meetings, GPs mentioned the importance of evidence. Six GPs said that they were interested in research, because of its relevance to their clinical practice. Respondents mentioned a lack of trust in their skills to appraise evidence critically.

I find it difficult. I am not good at it. So when someone mentions it, I am overwhelmed and assume it to be correct. (GP5)

They also found reading papers and including research findings in their discussions too time-consuming. GPs consider research as something for other people, not for themselves. The majority of respondents said they expect other people (both within and outside their group) to be the ones interested in research, or the ones better at critical appraisal. The interviewees expressed trust in those GPs who are engaged in research for example through taking part in committees that write guidelines.

I trust in the expertise of the people that put together the [...] guidelines. We have a scientific community of the NHG {Dutch College of General Practitioners} that gets to the bottom of those things. (GP3)

He knows much about adipositas for example. He was a member of the guideline committee. [...] Only because he knows a bit more about research, he is somewhat more critical in discussions about other topics. [...]. Moreover, while telling you this I think, why don't I do that myself? I think that he is more capable to give arguments because he has learned more about doing research, and how to appraise research. (GP13)

Not all quality circles spend time on discussing guidelines during their meetings, but most use guidelines prior to their meeting if preparing a presentation. Not all members prepare a presentation, not even occasionally. They use documents prepared by national institutions supported by insurers who promote quality circles. Most groups do not connect their schedule with current issues from their clinical practice because the topics are often decided upon well in advance.

When asked, most respondents were convinced that setting up journal clubs in addition to their other group meetings was not feasible.

You have to be honest; we are not researchers primarily! We are GPs who see patients mainly, which means you cannot do everything. That is a simple truth. (GP4).

I would enjoy it when we would be a more science-based group [...] once every six months. Someone prepares something that is really new for primary care, and what we need to use in our general practice. [...] But time is a problem, and we are under pressure from the health insurers to speak about certain topics which fill the time already. I am not certain whether my needs are shared within the group where I participate in. (GP1)

Discussion

In our context, quality circles are the type of group meeting that occurs most often in primary care. Nearly all pharmacists and GPs attend these pharmacotherapy audit meetings [16]. Journal clubs are uncommon. Members use guidelines as a source of scientific evidence primarily before their meetings. It was striking that GPs value opportunities to maintain relationships with pharmacists a lot. This is in accordance with a study by Walker et al. [17], who found that GPs value process outcomes of group meetings such as increased interaction between practices. Our finding that EBM learning in quality circle meetings is not optimal is similar to that of Siegel et al. [18], who state: 'Opportunities to rise above the level of a discussion about "applying the right practice guidelines" seem to be missed' (p. 8).

EBM is not only about evidence but also about the experience of clinicians and patients' wishes and values. We conclude that their clinical experience offers the main perspective from which GPs explore sources of evidence while patients' wishes are discussed, but not questioned. It was acknowledged that they applied evidence to a specific patient, deviating from guidelines when necessary, but this did not appear to stimulate discussion. Spending more time on discussing their own challenges when applying research knowledge would be beneficial for learning [19].

Quality circles, where guidelines and footnotes are discussed offer opportunities to learn clinical-epidemiological knowledge. This knowledge is essential for judging guidelines and expert-knowledge in a critically reflective

manner. Quality circles might connect learning and performance [20]. However, quality circles with the main focus on prescribing figures seem to be more goal-oriented than learning oriented [21,22], concentrating on agreements and less on improving clinical-epidemiological knowledge.

The general impression was that GPs see research as something for other people to study. They consider themselves as consumers of evidence, and trust summaries of evidence [23] accepting the results without further doubts, especially when members of their GP peer group had been involved in summarising and evaluating research findings.

The design of these meetings, for example when there is little discussion on clinical applicability or when the agenda is heavily influenced by issues of health insurers, is arguably not supportive of learning. It is known that GPs are well aware of the fact that lecturing is not the most effective but remains the most preferred [24]. A more critically reflective attitude toward research would help GPs learn more during the valuable and scarce time they spend in quality circles.

Our findings align with identified challenges of connecting quality improvement and continuing professional performance [25–27]. This makes our conclusions even more pressing. When time is a limiting factor for GPs to set up journal clubs, lifelong learning of clinical-epidemiological knowledge does not get sufficient attention. Quality circles in their present design do not offer enough opportunities for this.

Strengths and limitations of the study and future work

The mixed methods study design is a strength of this study. The quantitative approach gives a description of the use of evidence at GP group meetings in the Netherlands, while the qualitative approach gives detailed information on how evidence is used in quality circles. A limitation of our study is that only GPs in the Utrecht region were involved. We believe the study group is representative of GPs across the Netherlands, as training programmes and quality assessments are comparable throughout the country in a national system.

Future work might adopt an experimental design where support is provided to members of quality circles to delve deeper into the footnotes of the guidelines, and members are made aware of the learning opportunities that such an approach might offer.

Ethical approval

The ethical review board of the Dutch Organisation for Medical Education (NVMO) gave ethical approval for this study.

Disclosure statement

No potential conflict of interest was reported by the authors.

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