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Research paper

Applying evidence in practice through small-group learning: a qualitative exploration of success

Diane R Kelly MD FRCGP DRCOG
Assistant Director

David E Cunningham BA MBChB MPhil FRCGP
Associate Advisor

Peter McCalister MBChB FRCGP DRCOG DCCH DipMedEd
Associate Advisor

Joe Cassidy MBChB MRCGP
Associate Advisor

NHS Education for Scotland (West), Scotland, UK

Ronald MacVicar MBChB FRCGP DRCOG DCCH
Assistant Director, NHS Education for Scotland (North), Scotland, UK

ABSTRACT

Background A particular approach to continuing professional development for general practitioners originated in Canada. The Canadian approach uses a modification of problem-based learning that is based on evidence-based medicine with facilitated small groups. Evidence-based modules are developed for discussion in a small group, where the group exists over an extended period of time. An evaluation of a pilot of the 'practice-based small group learning' (PBSG) approach in Scotland demonstrated enhanced participant knowledge and skills in evidence-based practice and small-group working. However, it is not known why PBSG was successful. Understanding this will help inform any further research and development of the approach for general practitioners and other professional groups.

Aim The aim of this study was to explore the perceptions and experiences of PBSG participants to gain an understanding of how PBSG learning achieves its success.

Method A qualitative study of PBSG learning using one-to-one interviews.

Results The small group format is an important factor in the success of the approach, along with the crucial role of the facilitator. Other factors include: the strong need among general practitioners to update their skills and compare their practice with that of peers; the inclusive nature of the small-group environment; the importance of creating a learning environment that is the right balance between being not too cosy but not too threatening; a recognition of the learning power of the group members instead of invited experts; the lack of trust among partners in practice and the lack of confidence of participants in their own skills as a facilitator. The findings highlight the importance of a learning environment conducive to learning and change, one that is based on honesty, openness and a willingness to acknowledge ignorance as a precursor to learning.

Keywords: continuing professional development, evidence-based practice, general practitioners, small-group learning

How this fits in with quality in primary care

What do we know?

A particular model of small-group learning is used widely in Canada as a specific approach to continuing professional development and is known as practice-based small group (PBSG) learning. A quantitative evaluation of a Scottish pilot of PBSG learning has demonstrated enhanced participant evidence-based and small-group knowledge and skills. It is known that small-group learning is a popular and effective learning method. PBSG uses the small-group method of learning, but in addition it combines it with problem-based learning, facilitation and evidence-based modules focusing specifically, through discussion, on trying to help participants change their practice based on evidence.

What does this paper add?

This qualitative study identified a range of factors to help understand why the Scottish pilot of PBSG learning was successful. PBSG has been evaluated quantitatively to assess whether it works, and qualitatively to understand how it achieves this success. A key factor was the role of the facilitator in creating an environment conducive to learning and to enabling the transfer of evidence into practice.

This work suggests that PBSG learning has the potential to become an effective method of continuing professional development for general practitioners in Scotland and the UK. Further research with other professional groups (e.g. practice nurses and multiprofessional groups), and further exploration of the impact of PBSG learning on practice are needed.

Introduction

Practice-based small group (PBSG) learning is a Canadian approach to continuing professional development (CPD) for general practitioners (GPs).[1,2] While small-group learning is a well-established model for postgraduate learning, the Canadians have developed a particular format that involves discussion of pre-prepared evidence-based modules with the specific aim of helping participants identify and discuss similar challenges from within their own practice as a way of facilitating the transfer of evidence into practice. It involves small groups of GPs who over time, with the aid of a trained facilitator, work through modules selected by the group. Each module commences with several clinical problems, which are usually case study based to encourage discussion. The modules also contain a review of relevant evidence. At the end of the session, participants are asked to reflect on what they have learned and then consider how they need to change their practice. The aim is not to solve the presented problems, rather the problems should act as a stimulus to encourage the group members to identify, discuss and address cases from their own experience too. Although PBSG learning as described above has been in place for some years in Canada, and is now an established method of learning in other countries, there is a lack of published work on the impact of this approach.[3]

Practice-based learning according to the Canadian approach is derived from problem-based learning, and is an attempt to embed learning and evidence in practice. Many GPs practise in isolation or in small groups, with surprisingly few opportunities to gauge themselves and their practice against their peers, and they have been found to value this opportunity highly.[4] The role of the facilitator has been recognised.[5] He/she needs to be competent at many tasks including opening the discussion, clarifying, summarising, questioning, and devising strategies to improve group function.[6]

PBSG offers a form of learning that combines case studies, a small-group learning format, a facilitator and reference sources of evidence-based medicine. The purpose is to enable the transfer of evidence into practice through the use of facilitated small groups, using presented cases to encourage reflection on individual practice. The approach was piloted for one year in Scotland with five small groups, three in the west and two in the north. One of the groups in the north met using videoconferencing. Further details of the pilot and quantitative evaluation have been published.[7] The principal finding was a significant change in GPs' knowledge, skills and attitudes in relation to evidence-based practice, and knowledge of small-group function. However, it is not known how PBSG led to the observed changes, and there is a recognised need to gain more insight into which elements of education work best and why.[8]

This paper describes a qualitative study of PBSG learning in Scotland. The aim was to explore the perceptions and experiences of participants in order to gain an understanding of how PBSG learning achieved its success as demonstrated in a quantitative evaluation, in order to inform further development and roll-out of the initiative and to guide future research.

Method

Interviews were chosen as a way of understanding the success of PBSG from both participant and facilitator perspectives. An iterative, semi-structured style enabled enquiry into individual perception, feelings and experience of the PBSG process. Emergent themes informed future questions.

Interviewees were selected using a purposive sampling strategy to maximise the diversity and richness of the data gathered. All five facilitators were interviewed to explore their dual role as facilitator and participant. It was felt a further ten participants should achieve data saturation. The ten were selected through discussion with each group facilitator to identify a range of participants from all five groups, from enthusiasts to individuals who had left the project. Final selection took place based on availability. Of the ten, seven were enthusiastic, two were unenthusiastic and had decided not to continue, and one was ambivalent and unsure about his continuing membership. All groups, except the videoconferencing group, chose to continue after the end of the pilot study, therefore all interviewees, except those from the videoconference group and two others (one from Ayrshire and one from Inverness), were still active group members.

Interviews

Semi-structured interviews were conducted face-to-face with the facilitators and participants from the groups in the west and one group in the north, and by telephone with participants from the videoconference group. Interviews lasted approximately 45 minutes, were audiotaped (except when there was too much background noise), and detailed notes were taken, including verbatim comments, which could be used to highlight emerging themes from the data analysis. Transcripts were read and re-read. Patterns and themes were identified using content analysis.

The study was designed to answer four related questions:

1 *why participants took part*: expectations and motivations
2 *what they had gained from participation*: experiences of participants in the PBSG group
3 *what they had learned personally*: personal evaluation of benefits and personal commitment towards continuing membership
4 *what impact it had had on their practice of medicine and practice care.*

The researcher undertook an initial pilot interview with one of the facilitators to develop an interview topic guide. This topic guide covered the four questions above with additional supplementary questions: the suitability of topics for educational modules, what sessions were most successful, whether they attended regularly, whether they had undertaken any preparatory work, whether the Canadian origin of the modules had any adverse influence on the learning process, their intentions on continuing to participate as group members or train as a facilitator of future groups.

All participants in PBSG were given an identification number at the start of the pilot, and for consistency this number was also used in this study. Therefore although there were only 15 interviewees, participant numbers for the quotations in this paper range from 1 to 36.

Results

Six main themes emerged from the interview data and are listed below:

1 the need to update critical appraisal skills and medical knowledge
2 appreciation of the benefits of small-group learning
3 preferred membership of the groups
4 the relevance of Canadian modular topics to Scottish GPs
5 learning into practice
6 the future of the groups and expansion of the project.

The need to update critical appraisal skills and medical knowledge

Participants joined the project for a number of reasons. Various members expressed a desire to keep up to date with changes in clinical care. Others wanted to compare what they were doing with their peers, to confirm that they were practising safely and that their care was of an acceptable standard. Participants also stated that they wanted to be able to examine current evidence and to improve their critical appraisal skills.

> 'To gain understanding of how others would tackle similar problems.'
> (Participant 14)

Participants from both rural and urban practices expressed concerns about their ability to practise up-to-date medicine.

> 'We feel rather isolated and don't keep in touch with each other and with developments elsewhere.' (Participant 18)

Appreciation of the benefits of small-group learning

The interaction between members of small groups was an attraction for many participants.

> 'I was attracted by the interactive bit of it, you partake a lot more. Something you don't get with web-based courses. (Participant 3)

Participants liked the inclusive nature of the small groups and appreciated the egalitarian quality of the interaction within them.

> 'It didn't matter where we came from; Skye, Wick or Brora. It soon became clear that we were all in the same learning position. And those in Inverness and Aberdeen didn't have all the answers.' (Participant 8)

There was widespread agreement that the principal requisites for a good facilitator were experience and competence in small-group skills. One facilitator identified another skill:

> 'You've got to be able to hold the tension between comforting and challenging.' (Participant 21 – facilitator)

Clearly, too much comforting and the group may become cosy, anecdotal and ineffective. Too much challenging and there is the possibility of members finding it so threatening that they drop out.

Preferred membership of the groups

Some participants had different perceptions of learning from GP colleagues. One participant who had left a group felt the process had been too cosy and self-congratulatory to serve an important educational function.

His preferred solution was to reduce the chat and increase the formal learning by inviting experts along to guide the proceedings and to work towards a list of 'correct solutions'. This suggestion was fed back to subsequent interviewees who rejected it. Some did so very strongly:

> 'When the expert comes in, learning stops.' (Participant 13 – facilitator)

The use of invited experts (invariably hospital-based consultants using a traditional didactic approach to learning) was seen as an anathema to adult learning and the small-group ethos. The importance of this ethos is also illustrated by responses to another suggestion – that the groups would be more effective if they were based within a single primary care team, rather than self-selected participants from various practices. One participant felt that change was unlikely to happen if only one member from a team tried to create change alone.

> 'It's all very well for us to have good discussions and fine ideas in the group, but if I want to change things, I have to persuade my practice colleagues, and not just GPs, also nurses and support staff.' (Participant 12)

Only a small number favoured such a change. Others felt that the support and trust necessary for personal learning and development could not be achieved in a group of doctors from the same or adjacent practices. They felt that some of the doctors in their practice would be resistant to the small-group approach, others would lack the motivation and yet others (especially the nursing and support staff) would not have the necessary clinical knowledge. Moreover, some of those interviewed admitted that they would be reticent about sharing experiences and ignorance with immediate colleagues. One of the more emphatic statements to this effect came from a participant who had worked with the same three partners for almost 20 years.

> 'They have no respect for each other, nor for me, and they bring baggage from the past into all practice discussions. That sort of thing never happens in the group. One of the beauties of the group is that you are away from your partners.' (Participant 26)

The relevance of Canadian modular topics to Scottish GPs

Participants had mixed opinions on how the Canadian style of healthcare practice affected what they had learned:

> 'Some of the things suggested might be okay for Canada, but not for here.' (Participant 26)

Other participants felt that apart from the case study patients' names, their symptoms were not very different from those seen in any Scottish GP's waiting room.

All favoured the PBSG module over national guidelines produced by the Scottish Intercollegiate Guidelines Network (SIGN) on a variety of clinical and non-clinical topics.

> 'Modules are much better than SIGN guidelines because they are patient based and make you think about your own practice.' (Participant 29)

The selected module topics were considered to be relevant to everyday general practice work in Scotland.

> 'Bread and butter topics are best because we've all experienced them. For the more esoteric conditions we have less practical experience and therefore have to rely more on the cases described in the module.' (Participant 18)

Opinion on topic selection seemed equally divided and it would seem that the compilers of the PBSG modular material have produced an effective mix.

This is certainly the view of the relatively young GP who responded:

> 'None of the sessions were a complete waste of time. Even for those conditions for which you had plenty of experience, it was good to have what you know reinforced.' (Participant 29)

Learning into practice

A dominant finding from the interviews was that participants stated that they had applied some learning to their practice. They reported a general increase in awareness of conditions and also confidence in treating them. Some went further and cited specific benefits:

> 'The module on falls was very good and I now regularly employ the ''Get Up and Go'' test to enable me to assess mobility and balance.' (Participant 26)

Others reported that their learning had changed not just their own practice but also that of their practice colleagues.

> 'We've changed the way we deal with urinary tract infections. We used to get the lab to test all patients with symptoms; now we ask them to bring a urine sample for a dip-test. If it is positive, we give antibiotics, and only if the symptoms persist, do we send samples to the lab.' (Participant 36)

The future of the groups and expansion of the project

All interviewees who were still part of a group intended to continue their group membership for at least another year, with some intending to continue indefinitely. There was little doubt that the present groups contain a core of highly motivated members, but the likelihood of these groups continuing and proliferating may depend on some members being prepared to take on the role of facilitator. A minority said they would be interested in becoming a facilitator in the future. However, the majority felt they did not have the time or, in some cases, the requisite skill, to be a facilitator. Some said they would volunteer to be a facilitator if this was a shared role.

Some of those interviewed felt that ultimately the sustainability of PBSG will be determined by changes in GP education arrangements. As one well-informed facilitator stated:

> 'While only 1 in 3 or 1 in 4 might be prepared to join a group in their own time, this could increase if there were more protected learning time sessions.' (Participant 21 – facilitator)

Another facilitator made a similar observation:

> '1 in 5 at present, but it could go much higher. Everyone's waiting to see what happens with primary care partnerships.' (Participant 36 – facilitator)

Discussion

This study aimed to gain an understanding of how a PBSG learning method achieved its success, as demonstrated in a previous quantitative evaluative study, through exploring the perceptions and experiences of participants. This has been achieved, with a range of factors highlighted. Data saturation was reached.

The strengths of this study include its qualitative nature, with one-to-one interviews carried out by an independent interviewer more likely to permit an open and honest expression of views. A further strength was that the groups ran for just over one year, therefore participants' views developed over a significant period of time. Interviewees were selected from all participating groups, including each facilitator, ensuring good representation of views. The PBSG groups were from two geographical areas in Scotland which should enhance the generalisability of the findings to inform any future roll-out of the initiative.

Potential limitations of the study include that there were only five groups and that the facilitators had pre-existing educational experience and skills.[7] This has potential implications for the future selection and training of facilitators. Another possible weakness could be that at the time of the interviews, four out of five small groups were still functioning, as they had elected to continue beyond the year of the study. This may have affected their level of honesty, for example in relation to the role of the facilitator. They could either have felt more able to be honest as the relationships and trust within the group was high and well established, or they may have been less honest as the groups were still ongoing.

PBSG enabled participants to compare their practice with that of their peers, and this was mentioned frequently as a very positive motivator in joining and continuing in the groups. This corroborates previous work which found this to be an enhancer for translating research into practice.[9] Cranney also identified some barriers to translating evidence into practice including: doubts about the applicability of data to particular patients, ageist attitudes and the absence of an educational mentor.[9] It is possible that the small-group format may have helped participants overcome some of these barriers; for example, discussion of

personal stories might help participants tackle any doubts they may have on individual cases, and it might also enable attitudes to be highlighted and perhaps modified, through hearing the views and beliefs of others. In addition, the group members and the facilitator may have offered each other educational support.

This study shows that comparison with one's peers was important, as was the support, confidence and reassurance that some gained from being part of the group. The significance of such support and confidence in effecting change has been recognised previously.[10]

It is known that small groups can encourage active participation and deep learning as well as learning of group skills and the ability to express new ideas.[11] Small-group discussion can also help participants work through the freeze, unfreeze and refreeze process to ensure that new learning is incorporated with prior learning.[12] These issues may have been a factor in the success of the PBSG initiative; however, they did not form part of the study and it is anticipated that they would be incorporated into any future research.

The facilitator role was an important contributor to the success of the project. The value of facilitated, small-group learning is well established.[13–15] One of the key skills for an effective facilitator is 'the ability to create an environment of high support and high challenge'.[16] This skill was found to be important in this study.

Conclusions

This study has highlighted a number of factors contributing to the success of the PBSG approach to learning and to helping incorporate evidence into practice. These include:

- the crucial and skillful role of the facilitator in establishing and maintaining a learning environment with an appropriate balance of comfort and challenge, and creating a culture of openness, honesty and willingness to acknowledge ignorance as a precursor to learning
- the motivations of those taking part, including:
  - a desire for peer support
  - a desire to update and compare knowledge and practice with others
- the importance of the small-group format.

These findings should be taken into account by policy makers and others with responsibility for workforce development.

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ETHICS COMMITTEE

This research project was submitted to and approved by the Multi-Centre Research Ethics Committee for Wales on 15/6/05, protocol no. 05/MRE09/43.

CONFLICTS OF INTEREST

None.

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CONFLICTS OF INTEREST

None.

ADDRESS FOR CORRESPONDENCE

Dr Diane Kelly, NHS Education for Scotland, 3rd Floor, 2 Central Quay, 89 Hydepark Street, Glasgow G3 8BW, Scotland, UK. Tel: +44 (0)141 223 1476; fax: +44 (0)141 223 1480; email: diane.kelly@nes.scot.nhs.uk

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