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WEB PAPER

Practice-based Small Group Learning: How health professionals view their intention to change and the process of implementing change in practice

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Abstract

Commitment-to-change (CTC) strategies used as part of Continuing Professional Development (CPD) programmes have been found to influence changes in the clinical practice of health professionals. However, there is an unquestioned usage of the term 'commitment' to describe the statements made by learners specifying the changes they intend to make following CPD programmes. The Practice-based Small Group Learning (PBSGL) programme is one approach to the CPD of health professionals that includes a CTC instrument. This study reports on a pilot PBSGL programme in Scotland, which composed of mixed groups of General Practitioners (GPs) and Practice Nurses (PNs), as well as PN-only groups. Using qualitative methods, the study examines the meaning that learners ascribe to their statements of intention to introduce changes in their practice. It reveals that for some participants commitment is too strong a word to describe their intention. Nevertheless, others did feel that they were committing to the changes that they identified at PBSGL meetings. This study also explores the factors that influenced the decision of PBSGL participants to introduce practice changes, and the process of implementing change in clinical practice.

Introduction

The various forms of commitment-to-change (CTC) strategies used in continuing medical education (CME) demonstrate a correlation between statements of intention to change and subsequent implementation of change in practice (Purkis 1982; Mazmanian et al. 2001; Wakefield et al. 2003). Since Purkis, CTC researchers have assumed that such statements reflect a *commitment* on the part of learners to make changes in their clinical practice (Purkis 1982; Jones 1990; Dolcourt 2000; Lockyer et al. 2001). However, none have sought to ascertain whether these decisions, made during CME programmes, do really signify a commitment or some other type of intention. This suggests a danger that the term *commitment* may have been used as an umbrella word (Farley 1986); thereby obscuring the differences in the intention that health professionals may experience.

This article focuses on the Practice-based Small Group Learning (PBSGL) programme, developed initially in Canada for the Continuing Professional Development (CPD) of family physicians. The programme has expanded to several other countries, including Scotland and the United States.

PBSGL involves small groups of practitioners (usually numbering from four to nine) who meet at a frequency determined by the group and with the aid of a trained peer-facilitator, work through topic-specific modules selected by the group. Each module commences with several clinical problems, and contains a review of relevant evidence.

Practice points

- There is a continuum of meanings underlying statements of intended changes to clinical practice – from consideration, through aspiration, to a commitment.
- PBSG Learning supplies the evidence for initiating change, as well as legitimising change since evidence is discussed within groups of local health professionals.
- Implementation of changes that require a team approach is likely to be slower and more incremental than changes within the individual health professional's control.
- Email can be a useful tool for qualitative research in the healthcare sector.

Three key objectives of PBSGL are (a) to identify gaps between current practice and best available evidence, (b) to encourage reflection on individual practice, and (c) to promote changes in patient care (Armson et al. 2007, pp. 1478–1479). The third objective is achieved when groups complete a CTC instrument in the form of a log-sheet at the completion of each module. Armson et al. (2007) and MacVicar (2003) provide detailed description of PBSGL.

A few studies into the effectiveness of PBSGL have found that the approach does influence changes in clinical practice (Wakefield et al. 2003; Herbert et al. 2004; Kelly et al. 2007).

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Box. 1 The commitment-to-change instrument contained in a PBSGL log-sheet.

Please indicate below how this module will change *or* confirm your current practice. *Choose all responses that apply.* Please give key examples related to specific examples (e.g. approaches, investigations, medications) under each applicable section.

☐ Yes,…*specify change(s) below*: ⇨	*Are there any barriers or problems that we anticipated?* ☐ No ☐ Yes please describe:
☐ Considering change….*specify below*: ⇨	
☐ No, confirmed current practice (no need to change) ⇨	*Please comment:*
☐ No, not yet convinced of need to change ⇨	*Please comment:*

A randomised controlled trial found significant changes in the prescribing behaviour for hypertension following participation in the programme. The impact was greater when practitioners received personalised prescribing feedback, in addition to participation in the standard PBSGL process (Herbert et al. 2004). Nevertheless, there is an unquestioned assumption that the health professional's intention reflects a commitment, when the individual specifies intended practice changes (MacVicar 2003, 435; Wakefield et al. 2003, 88).

In this study, we sought to explore the range of meanings that PBSGL members ascribe to their intention to introduce clinical changes. Additionally, we aimed to identify the factors that influence the decision to change and the types of changes precipitated by PBSGL. We also examined the implementation process of changes in practice.

The groups

Following evaluation of the success of PBSGL with groups of General Practitioners (GPs) in Scotland (MacVicar et al. 2006; Kelly et al. 2007), the approach was extended and piloted with two multi-professional groups (composed of GPs and Practice Nurses (PN)) and two PN-only groups. In all four groups, a PN took on the role of facilitator and received training for the role. There were a total of 19 members in the multi-professional (MP) groups and the same total for the PN groups. The MP groups consisted of 4 males and 15 females, whereas all were female in the PN groups. The groups are identified below as MP1, MP2, PN1 and PN2.

Methods

The information from the first meeting's log-sheet was used for the purposive selection of participants who indicated an intention to introduce clinical changes. This intention to change was recorded in the log-sheet groups complete following discussion. The log sheet, as reproduced below (Box 1), forms an integral part of the PBSGL process and the second part of the log-sheet is considered as the CTC instrument (Wakefield et al. 2003; Armson et al. 2007).

MP1's log-sheet indicates that five learners expressed the intention to introduce specific changes, and three were considering change in their clinical practice.[1] For MP2, the log-sheet shows that three learners expressed the intention to introduce specific changes, and two of these were also considering changes, to their practice. There was, however, an ambiguity about an entry on the log-sheet. The facilitator clarified that the entry was meant to reflect an intention to introduce the specified change. She also mentioned having sought further advice from the PBSGL project on how to complete the log-sheet. Eight members, from both groups, agreed to participate in the research (Table 1). One member from MP1 was excluded since she contributed to the formulation of the interview questions.

PN1's log-sheet shows that of six attendees, two specified changes that they intended to introduce and one was considering change. Further inquiry revealed that three others had indicated an intention to introduce a specific change in their practice. At PN2's first meeting only one member indicated an intention to make a specific practice change, while six were considering changing their practice. Another member felt that there was no need to change as her current practice was confirmed. Six PNs from both groups who had intended to introduce changes agreed to participate in the study (Table 1).

Semi-structured interviews were appropriate given the qualitative nature of the lines of inquiry. However, an informal feeler confirmed that many of the GPs and PNs from the MP groups would not be readily available for face-to-face interview within the data collection stage, as well as their preference for email communication. The members of these groups used email to communicate between meetings. Given this background, those invited to take part in the study were provided a choice of means of communication. While we indicated a preference for a face-to-face interview, we also provided alternatives, namely, a telephone interview or email exchanges. We mentioned that those who choose email communication might be contacted by telephone. Nevertheless, we expected any further telephone contact to be brief, since the email exchanges would create a more focused conversation.

Table 1. Learners intending to introduce specific changes in clinical practice after the first PBSGL meeting.

Group type	Group identifier	Attendance at first meeting	Number of learners intending to introduce specific practice change
Multi-professional	MP1	8	5
	MP2	8	4
	Subtotal	16	8*
Practice Nurse-only	PN1	6	5
	PN2	8	1
	Subtotal	14	6
Total participants studied			14

Note: A total of nine learners involved in the multi-professional groups indicated intention to change, however, one of these was involved with developing the interview questions and therefore excluded from study.

Three members from the MP groups agreed to face-to-face interviews, one opted for telephone interview and four selected email exchanges. Email responses were rapid and detailed. These responses are identified below, in the findings. For the PN-only groups, we used face-to-face and telephone interviews.[2]

While the first meeting's log-sheets were used to guide the selection of participants, we did not limit our inquiry solely to practice change specified therein. Since interviews took place 5–6 months following the first meeting, we also probed into further instances of practice change influenced by continued participation in PBSGL meetings. Questions were posed based on the following themes: (I) the nature of intention underlying statements that specify intended changes to clinical practice, (II) factors that influence the decision-making on adopting a change, (III) the type of clinical changes, and the process of implementation changes. We use these themes to discuss the findings.

Findings

(I) Intention underlying statements specifying changes to clinical practice. For several participants, the intention to introduce specific changes in their practice did reflect a commitment:

> The raising [of] the issue in the group not only reminded me of it but also highlighted the importance of it to me, and my intention was very much to commit to make changes in my practice. [email]

> I feel that I am making a commitment . . . The whole point of going along to [PBSGL meetings] . . . it is obviously [an] educational experience, but it is also to change practice, to improve patient care.

Others used phrases such as 'hopeful intention' 'very good intention' and 'aspire to' to describe their intention to change. A few expressed that their intention did not imply rote behaviour, but as one learner explained:

> If I say something like that [i.e. my practice will change] at the end of a meeting, I am not necessarily making a commitment to do it . . . So, it is more that I am committing to considering it. It is not something I am going to do carte blanche, without any further reflection, on the basis of one meeting.

It is also clear that commitment is not necessarily experienced as an 'all or nothing' state of intention. As evident from the following remarks, participants may have intended to commit to a specific change, and yet such commitment was conditional:

> I don't like making commitments, especially if I'm not going to be able to keep them. Commitment is a strong word, you feel fully committed. But again, if we're going to the meetings and we're going to gain by it, and we're wanting changes, we need to commit to a certain amount or level of activity. . . . Although you would like to see changes, you may not be able to follow through because of constraints within the practice. So it is very conditional because of the other people involved, the practice as a whole.

> I would say I have sincere intention to make the change and would like to say I'm committed to doing so. Obviously, feasibility of introducing changes has to be discussed with the rest of the team and agreed . . . Getting the appropriate forum for discussion may be more tricky. [email]

In contrast, when the implementation of a specific change was within the control of participants, they seemed motivated primarily by a normative desire to improve their practice:

> I take away things that will improve my practice; then yeah, I will make the changes. I would feel that it would be wrong to realise that I could be doing something better but not do it better The way I work, I have the flexibility and resources to implement things.

A couple of responses, from PN1 and MP2, highlight that the log-sheet may not necessarily reflect individual commitment, but rather conveys a summary of the group's agreement on the practice changes that had been discussed:

> We probably did not spend much time discussing that [the different options in the log-sheet]. [The facilitator] would give the lead and we would give a brief confirmation or addition to what she says, probably because by the time we get to that section, time is rolling on for one thing, but it is clear whether it is [the meeting] having an effect on what we would do or not, because it all comes out in the discussion.

> The danger of these feedback forms is we just think of things to say. I think that has happened a couple of times – 'right what shall we put on the form', then a couple of us would pipe in things that may have been brought up, may be not relevant to me, but what the group has brought up and, 'quick put that down'. We don't like form filling. We do it all our working lives, so we try and make it short and sweet.

(II) Factors influencing decision to change. Receiving new information appears to influence nearly all decisions to introduce change in clinical practice. The main sources of information were the module, guidelines,[3] as well as 'what has worked well' for others in their group.

One member mentioned being convinced by the evidence in the modules because 'the strength of the evidence was high from all the different references and web sites' [email]. In a similar vein, another said, 'you get the feeling that somebody has thought this through.' Nevertheless, there were occasions when the recommendations in the modules, which were prepared in Canada, were inconsistent with UK guidelines. When there was a clear contradiction, in the PN-only groups there was concurrence that the latter took precedence. In contrast, in MP2 there was an occasion when one GP member expressed views that could have been divergent with guidelines. Relating this occasion, a PN member of the group said: 'I could feel my hackles rising. There are NICE guidelines and SIGN guidelines, amalgamated, and siphoned into guidelines. OK, they are for guidance. If we can't rely on the evidence siphoned in guidelines, where are we? Where are we going to be? We'll all think "well I'll do my own personal thing." I don't think this is particularly good.'

Nevertheless, another participant from MP2 pointed out her realisation of 'how diverse our practice is despite numerous protocols and guidelines in place' [email]. Echoing a similar view, a member from PN1 observed: 'maybe for most people the guideline goes so far. [But] medicine isn't black or white. You don't always get definite answers, but there is a way of getting around things – or discussing – that's a big thing, discussion. How would you do it? How would someone else do it? Come to a conclusion . . . In the end, the patient is the one's that is taken care of and what's best for them is the way to go with.'

For some, group discussions were helpful to their decision to introduce practice change. For instance, one GP member from MP1 explained: 'Although I have been aware of this issue, I had not been acting upon it. The raising [of] the issue in the group not only reminded me of it, but also highlighted the importance of it to me' [email]. When considering the practice of others, participants mentioned that they reflected on its appropriateness to their patients. For instance, a member from PN1 observed: 'if they say "this is our way of working". . . there is a question about whether that is relevant to my practice population. I would [then] say "well, if you practice that way, how did you introduce that or find that with your group of patients or what particular age group of patients does it work better for?"'

(III) Type of clinical changes and the process of implementation. All participants could recount at least one change, and some could recall more than one change, which they have managed to implement. The following accounts illustrate the wide-range of changes implemented following PBSGL meetings:

> I think there is a range, there is fine-tuning and right up to spending a lot of time thinking. I suppose the trying out of the [ibuprofen] patches [for pain relief] could count as fine-tuning or trying out something new. The coeliac [module] obviously . . . more sitting down and thinking . . . Because of the module, mainly the PN, but with a bit of help from myself, she has written a management protocol for patients in our practice that have got coeliac. It wouldn't have happened if we didn't have the module . . . I think that is a big thing.

> The first module emphasised the importance of asking elderly patients about any over-the-counter medications they take – I now do this routinely, whereas I did not previously. The Colitis module brought up the importance of checking colitis blood tests in anaemic patients – I now do this, whereas I didn't previously. The Dizziness module introduced new information for me regarding exercises for patients – I have discussed this with our Practice physiotherapists, and am much more aware of the usefulness of such treatment. [email]

> I found the equipment in the practice was needing updated. I did come out of that meeting [on patient safety], and I did make a request, and they [GPs at work-place] have addressed two parts of the equipments. I now have a new ECG machine and a new nebuliser.

When the change was distinctive or implementation was more straightforward, participants did not seem to have a specific strategy for implementing the change:

> The hope was that you would actually transcribe that [learning] into something practical. But, I haven't got an aide memoire, or anything to say 'remember over-the-counter drugs'. But just the intention that I would consider, not just in the elderly but in everybody. I thought that would stick, because it had never crossed my mind.

> No strategy I am afraid; more thinking about the impending consultation and how I might implement a stepwise approach within it. More of a learning curve in how to gradually bring it into your practice. [email]

Some other changes, usually when they were substantial or required the support of others, entailed further steps in the implementation process, including further reflection, seeking more information as well as securing the support of workplace colleagues:

> If there are big changes to be made, and the educational side of it – is it going to be more

> educational things, study days. If it entails more studying, more information about a particular topic, how are you going to go about this? How are you going to get time off to go? Will you get it from the practice? Does it have to be in your own time? What about the financial aspect of it; do you have to pay for it yourself or do you have help paying for it. Just lots of issues . . .
>
> It is not always that straightforward when you have got so many results. It is working out a good system. The meeting influenced me to think about it more, and then it also came up at a practice meeting. I also sought advice from the NMC.[4] I think it was a big change. Our results are better managed now.
>
> Talking to the practice manager about it [management of results], because she is the one that has control. She would delegate to whomever is doing the results that we need to be checking to make sure all the results are back.

Nevertheless, negotiating with workplace teams can be problematic. As previously quoted, one participant pointed out that 'getting the appropriate forum for the discussion may be more tricky.' Another mentioned that it was difficult to implement intended changes due to 'time' and 'other people's perceptions of importance of intervention' [email]. It also emerged that for part-time GPs and PNs it was more difficult to implement changes that required the authorisation of others in the workplace:

> Because I am part-time, it's not easy to effect change. I have sat down and said, and wrote down, the problems I face, and 'here is my solutions'. I feel now that it is improving.
>
> It is not because I'm not convinced, it is 'will I be able to do it?' Because if I started doing a lot of throat swabs, I can see the doctors asking 'why are you doing all these swabs when we don't need them done?' So . . . there might be a barrier to stop me from doing that.

Even when the workplace team was enthusiastic about improving patient care, one PN member felt that 'it was quite a hard thing, cause it is not just you in isolation. It is a whole team. And team changes are hard.' This implied that implementation could be a more lengthy process.

Discussion

This study has shown, to some extent, the different forms of intention underlying explicit statements of willingness to introduce specific practice change, made during PBSGL meetings. Before considering this issue, we examined the use of email as a research tool in this study. We have not come across any previous qualitative research in the health sector that has used email interviewing. However, 10 years ago, Selwyn and Robson (1998) argued, that email was becoming 'an increasingly pervasive means of communication' and, the need to consider how this new method could be used effectively in social science research.

A potential challenge to the appropriateness of using email as a research method is the bias and limitation it imposes on the selection of participants for a study, namely, to those who have Internet access and are comfortable using the technology. This weakness is overcome in this study since participants were given a choice of means of communicating with the researchers. In a sense, this is empowering for participants. For shy participants, email interviews may be more comfortable, and this could encourage greater openness in communication. Furthermore, the MP groups were already using this technology to communicate between PBSGL meetings. The findings show that email responses were detailed. Even if email responses are not detailed, as this study demonstrates, it is possible to overcome this potential weakness by seeking consent from participants to a brief follow-up telephone conversation. This approach could help to overcome the problem of time constraints that many health professionals face when trying to fit in a lengthy face-to-face interview during their working hours.

This study has shown that when PBSGL learners specify changes that they will make in their practice, this need not necessarily reflect a commitment. Thus, while the programme designers and researchers may use the term 'commitment' to describe the intention of learners (Wakefield et al. 2003; Armson et al. 2007), from the perspective of learners, some may not have the intention to commit themselves. Commitment is seen as a 'strong word.' There can be a range of meanings underlying explicit statements of intention to change; it could be a hope or an aspiration or a commitment. This study also demonstrates that commitment can be conditional. This is especially so for major changes, when learners feel the need for further reflection on the implementation process and when the cooperation of workplace colleagues is essential for implementation.

We also found that a couple of PBSGL facilitators may not have taken the time to explain the significance of the form to the groups. This could mean that the objectives of encouraging personal reflection and identification of plans for practice change are not achieved. The view of at least one participant in this study confirms Armson et al.'s observation that the log-sheet is 'often viewed solely as an administrative task' (2007). Running out of time at the end of a meeting was another factor that sometimes interfered with the stages of reflection and identifying the changes that one intends to make.

Nevertheless, participation in PBSGL meetings encouraged a wide range of changes affecting patient care. The model of change proposed by Geertsma et al. (1982) can be used to understand the process by which participants adopted changes to their practice. While the participants' accounts of practice change do contain the elements of 'priming, focusing and follow-up' as conceptualised by Geertsma et al. (1982), there were not necessarily distinctly separated stages. At the meetings, participants became aware of the discrepancies between their previous practices and current thinking, thus producing the priming effect. This is evident in the above-quoted remark: 'I would feel that it would be wrong to realise that I could be doing something better but not do it better.' During meetings, PBSGL members also considered new or

alternative practice that could be adopted – which is the focusing component. The follow-up is seen as crucial to the adoption of change. According to Geertsma et al., it is the combined influence of authoritative evidence and the local professional opinion which brings about change. These two elements were present at the PBSGL meetings and thereafter. Members examined evidence from the modules and up-to-date guidelines. They were also in the unique position of discussing the evidence with their local colleagues at the meetings. Therefore, PBSGL not only supplies the evidence for initiating change but also crucially the group-based learning legitimises change (Davis 1989).

Unlike the study by Pereles et al. (2002) of enduring small groups, wherein participation almost always led to only minor practice change, participants in the current study identified some substantial practice changes. When the practice change was a minor one, it was implemented without intermediary stages. Substantial changes, such as changing the system for managing laboratory test results, necessitated further reflection and investigations, as well as developing strategies for implementation. Participants also drew a distinction between changes within their sphere of influence and those that required the cooperation of others. Generally, changes of the latter type were more difficult to implement or took a longer time. This type of change can be categorised as 'incremental change' (Fox et al. 1989). Fox et al. propose that experiential and problem-specific methods of learning are more suitable for such type of change. Thus, PBSGL, which promotes practice-based learning, could be said to be a useful approach for the CPD needs of GPs and PNs.

Conclusion

This study affirms that participation in PBSG Learning can lead to changes in healthcare practice. This study has also shown that email communication can be used effectively for qualitative research. When participants are provided with choice of means of communicating with researchers, this could be seen as democratising the research process. There are several studies that demonstrate the effectiveness of various CTC strategies to produce behavioural changes. This study highlights that merely asking learners to specify the changes they intend to make does not necessarily imply that learners feel a sense of commitment towards the intended changes. Making explicit that the request is for a commitment is one way of ensuring that statements of intention to introduce changes to healthcare practice do reflect such strong motivation.

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Notes

1. Normally the group log-sheet is completed without identifying the individuals. But for the first meeting of the PBSGLs involved in this study, members were identified according to their overt intention to make specific changes to their practice in relation to the module considered. This information was viewed by only one of the authors and did not form part of the record kept by the PBSGL project.

2. The recording of two face-to-face interviews was faulty. The interviewer managed to recall the essential information, and checked the accuracy of this information with the two participants.

3. The guidelines referred to were the Scottish Intercollegiate Guidelines Network (SIGN) and from the National Institute for Health and Clinical Excellence (NICE)

4. NMC is acronym for the Nursing and Midwifery Council.

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