STUDENTS' VIEWS OF ENQUIRY-BASED LEARNING IN A CONTINUING PROFESSIONAL DEVELOPMENT MODULE

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<u>Summary</u>

The purpose of this study was to explore whether qualified nurses who had undertaken a continuing professional development module at a UK university, which utilised enquiry- based learning (EBL) as the educational strategy, believed that their nursing practice had been influenced by this educational approach.

This study was underpinned by the assumptions of Gadamerian hermeneutic phenomenology; semi-structured interviews were conducted with eight nurses who had undertaken a continuing education module utilising an EBL approach.

The responses in this study indicate that participants believed that their practice of nursing had been positively influenced by engaging in EBL. They felt that by becoming self-directed, critical, reflective practitioners, they were better able to deliver evidence-based practice/care. Self reports of practice change attributed to engaging in EBL were provided, with the patient identified as the principal beneficiary, echoing the espoused aims of continuing professional development. EBL was credited with being a motivating, energising and enjoyable way of learning but participants were critical of the lack of preparedness of both the students and facilitators. Consideration needs to given as to whether EBL is viewed as a philosophy of learning or as a facilitative strategy used alongside other educational methods.

Key words

Enquiry-based learning; problem-based learning; student attitudes

INTRODUCTION

Enquiry-based learning (EBL) is an approach to education that has gained increasing popularity within the field of healthcare in recent years. It has its origins in problem-solving programmes of medical education that were pioneered in the United States and Canada, at Case Western Reserve and McMaster universities, in the 1950s and 1960s respectively (Boud & Feletti, 1997). Concerns regarding medical students' inability to relate the theory of medicine to its practice led to the development of this new problem-based approach (Barrows & Tamblyn, 1980), but it has remained controversial. A former dean of Harvard Medical School has argued that proving the worth of problem-based learning has been difficult, as 'zealous defenders and hostile critics have lined up around the still-meagre literature' (Federman, 1999, p93). This debate still continues in the literature on medical education (Norman & Schimdt, 2000; Albanese, 2000). In UK nursing education, there has been a similarly polarised response to this educational approach on the part of lecturers, but it also seems clear that its introduction into medical education has been influential in its wider adoption by other healthcare disciplines (Newman 2004, p. 13).

In the nursing literature, the terms EBL and problem based learning (PBL) are sometimes used interchangeably. EBL uses real life practice situations as the environment for investigation (Price, 2001). Where the goal is to resolve a problem, then the approach is more appropriately termed PBL. Both approaches share a common philosophy of inductive learning, that is learning from practice to theorise about what is going on (Price, 2001). Milligan (1999) however, could discern no clear difference between the two but suggested that the term EBL is preferred by

some as a means to overcome the negative connotations inherent in the word 'problem'. Long et al. (1999) suggest that as long as both EBL and PBL start with a realistic scenario and end with a proposed plan of action, they can be viewed as similar. In the light of such debates, an exploration as to whether nurses believe EBL influences nursing practice can help to illuminate this aspect of educational practice.

<u>BACKGROUND</u>

According to Savin-Baden (2000), EBL has been used as a learning strategy as far back as Socrates, who presented his students with problems that through his questioning, enabled them to explore their thoughts and offer possible solutions. The greater amount of evidence in favour of EBL/PBL comes from medical education research (Albanese & Mitchell, 1993; Norman & Schmidt, 1992; Walton & Matthews, 1989). Other evidence in favour of EBL/PBL comes from under-graduate and post-graduate level nurse education research in Australia and Canada (Morales-Mann & Kaitell, 2001; Blackford & Street, 1999; Peterson et al., 1999; Williams, 1999; Cooke & Donovan, 1998; Alavi et al., 1997; Creedy & Hand, 1994). There is some research concerning pre- and post-registration education which has been carried out in the UK (Andrews & Jones, 1996; Biley & Smith, 1998). A detailed study of PBL, together with a review of the literature, was published by Newman (2004). In a paper on multi-professional education, Hughes & Lucas (1997) claim the key elements to be the setting of problems to engage the learner in the learning task, facilitating discussion which distinguishes key features leading to identification of knowledge deficits and an understanding of the nature of the problem and how best to

approach and manage it. Learners are then engaged in independent learning activities within which they explore constructs, issue and theories, helping them to obtain a deeper understanding of the scenario or problem posed, and its potential solutions. For the module under review in this study, the process began with a small group of participants, who were presented with a realistic practice situation, which acted as a 'trigger'. This trigger was linked with the module learning outcomes. Previous knowledge and experience were identified with the aid of a facilitator, and any gaps in the students' knowledge were also identified. The students then searched for any necessary, missing information, which was brought back and shared with their peers. The group, with the encouragement of the facilitator, then devised a plan of action.

THE STUDY

Aim

The aim of the study was to explore how nurses who had undertaken a continuing professional development module which utilised EBL as the educational strategy believed that their nursing practice had been influenced by this approach.

Design/methodology

This study was underpinned by the assumptions of Gadamerian hermeneutic phenomenology. Gadamer followed the lead of his mentor, Heidegger, by developing his original definition of understanding (Gadamer, 1975). Like Heidegger, Gadamer recognised that to be human is to participate in a social, cultural and historical context. Therefore, in order to understand a person's behaviour or expressions, one has to study the person in context. He also believed that we encounter the world with

our own pre-judgments or pre-understandings. However, in addition to acknowledging them, Gadamer (1975) argued that researchers should test values, bias, or pre-judgments during interaction with participants, to develop knowledge about the phenomena being studied as well as the study. In this way, initial pre-judgments are modified by what is learnt and the horizons of knowledge are enlarged (fusion of horizons). Because we are always interpreting in the light of our anticipatory pre-judgements and prejudices, which are themselves always changing with the passage of time, our understanding of the meanings given to situations and events are always evolving and changing (Pascoe, 1996).

Another core tenet of Gadamer's hermeneutics is that understanding and interpretation are indissolubly bound up with each other. These core tenets give rise to the 'hermeneutic circle' of understanding, the fusion of horizon and the lived experience. The 'hermeneutic circle' enables an understanding to be gained of the meanings that both patients/clients and nurses give to situations, in such a way that does not strip human actions of their context. This accommodates the ever-changing situations which are integral to nursing, while enabling pre-judgments to extend the horizons of knowledge (Pascoe, 1996). Giving participants the opportunity to review the findings of a study can consolidate shared meanings (Streubert Speziale & Carpenter 2007, p. 93)

Sample/participants

The method of sampling chosen for this study was purposive. Its strength is the selection of participants who are knowledgeable about the topic being researched, but it provides no external means of assessing how typical they are of the wider population (Polit & Beck 2006, p. 264). An introductory letter accompanied by a research participant information sheet was posted to nurses who undertook this

module, inviting them to attend for an interview to explore whether they believed that this educational approach had influenced their clinical practice. It was stressed that this was a stand-alone research project, which was not part of their course, and that they could withdraw from the project at any time, without giving a reason, and without detriment to their future studies. Nurses who consented to an interview, returned a stamped addressed envelope to the researcher. Interviews were conducted at a place and time of their choosing. The participants were eight qualified nurses who had undertaken a Mentorship Preparation Pathway module, at a UK university, which utilised EBL as a learning strategy. They were working in one of two UK hospitals, a large teaching hospital and a district general hospital, in number of different clinical roles. Their positions varied from that of staff nurse to nurse manager: all were mentors for student nurses.

Table 1: Nurses in the sample.

Pseudonym	Qualified	Position	Area of Practice
Abigail	2001	Sister	Medical Assessment Unit
Bronwyn	1987	Staff nurse	ITU/CCU
Claudia	1997	Senior staff nurse	Medical Ward
Debbie	1983	Deputy sister	Medical Assessment Unit
Eleanor	1983	Senior staff nurse	Accident & Emergency Dept.
Fiona	2000	Senior staff nurse	Stroke Rehabilitation Ward
Gill	2002	Staff nurse	Community
Hannah	1974	Staff nurse	Paediatric Ward

Ethical considerations

Ethical approval was initially sought and obtained from the UK educational institution concerned. Then application for ethical approval was made to the relevant NHS Local Research Ethics Committee (LREC), but it concluded that the project was not one that

required ethical review under its terms of reference. Finally, permission was obtained

from the Research and Development departments of each of the NHS Trusts.

Data collection and analysis

Interviews were tape-recorded and then transcribed in full. The transcripts were

analysed using the method described by Colaizzi (Polit & Beck 2006, p.410).

1. Reading all the transcribed interviews in order to get a feel for them.

2. Review of each transcript and the extraction significant statements.

3. Formulation meanings from each significant statement.

4. Organising the formulated meanings into clusters of themes, referring

   back to original transcripts and noting discrepancies.

5. Integrating the results into an "exhaustive description" of the phenomenon

   under study.

6. Formulation of a statement of identification from the exhaustive

   description.

7. Review of findings by participants as a validating step.

FINDINGS AND DISCUSSION

On analysing the data, two main themes emerged: 'EBL as a way of influencing

practice' and 'EBL as a way of learning for nursing.'

EBL as a way of influencing practice

EBL was credited by participants with influencing nursing practice positively by

stimulating thinking about and questioning of practice.

'Well any education influences practice I think. It's whether you want to or can use that education. I don't think [other continuing education modules] have to the same, to the same effect as EBL' (Eleanor).

The EBL learning groups were identified as one of the reasons that EBL was potentially more influential on practice than other methods of delivering continuing education modules.

'I think you do bring that work from the group, that you've personally done, back to your practice, so you've improved your knowledge of communication, or you've improved your knowledge as the mentor role itself, for instance, so you do bring those back' (Bronwyn).

Not all participants believed that EBL had influenced their practice directly, but it was seen as influential in how they mentored their students:

'I've been thinking about it all morning, initially I would say no, absolutely not, I've never made the link at all, but thinking about it more and the fact that I used the EBL in my mentorship module, all right, so it was all about learners and breaking down the learning process, that has affected the way I manage my students' (Gill).

An explicit relationship was identified between EBL and evidence-based practice.

'This EBL, for me, it has correlated with the evidence-based practice, because it works hand in hand, for you, you look at the evidence which you have at hand, and then, you look at what you are going to do to, if it's a problem, to rectify that problem.'

(Debbie)

The similarity between the processes engaged in by EBL groups which work on a given 'trigger' or 'problem' or 'enquiry' and the process of providing evidence-based care in the practice situation was highlighted by some participants. EBL appeared to legitimise examining and questioning practice, providing a framework which enables this process of enquiry. In addition to examining practice, for some participants EBL acted as a consciousness raiser, encouraging the critical analysis of existing practice.

'[EBL] does encourage you to continue thinking, "well, why am I doing this?" Whereas when I first qualified I didn't do anything for two years and I think I began to − well just learning how to be a nurse really, but I think I forgot that everything is sort of evidence, should be evidenced-based. I mean, I know all protocols in the hospital are but yeah I kind of forgot about research really and I didn't think how important it was…'

(Abigail)

For some self-directed reflective learners, EBL encouraged reflection in a more dynamic fashion, extending its potential;

'I've used reflective practice before but now it's like...Whatever you do, you know, I have to think why I'm doing it and also my students, we would sit and analyse why...'

(Debbie)

For others, EBL appeared to support an existing approach to 'issues' or 'problems' in the ward context, acting as identified earlier, as a consciousness raiser.

'I think partly it has because I've always been inquisitive, any issue that I had on the ward I'd go and look it up. I think I'm just more conscious now of any issue that's on the ward, that I can go and do that, go and look it up, go and research it. …so in a way, it is supporting what I was doing.'   (Fiona)

The EBL learning group was identified as another source of information, aiding the development of the skill to source evidence and as a source of more information:

'I was getting it from other perspectives which I perhaps wouldn't have looked at.'

(Debbie)

All participants explicitly used the word 'change' in conjunction with EBL. For some, EBL was credited with stimulating thinking about practice and possible changes.

'[EBL has] given me ideas about which I can talk – [I] want to talk to senior staff on various subjects and maybe get things changed.'

(Eleanor)

Participants offered multiple concrete examples of actual practice change, where current best evidence was implemented in practice, which they believed occurred in response to engaging in EBL:

'I think it has brought about change because it encourages change. So say recently, [I] learned about an IM technique and so then I changed because of that.'

(Gill)

'Because this enquiry-based [learning] was, student-centred for me and my colleague we put in so much, because we were given things to do… we made an orientation pack which we still used for our students, we made … a questionnaire which we use for our students to gauge the climate…the learning environment…'

(Debbie)

'I could see there were variations in suctioning techniques and because people come in from slightly different areas, you know out of, from another hospital or something, but I knew that there had been a protocol, there was something that was actually in motion you know in our area, so I checked that that was the most up to date thing…. and I got the … to come in and do a teaching… that was something I did specifically thanks to that course..'

(Hannah)

EBL as a way of learning for nursing

Some of the participants who had not been exposed to EBL previously, acknowledged feelings of insecurity and apprehension at the onset of the Mentorship Preparation Module.

'…initially I was quite apprehensive…'   (Debbie)

'Made me nervous, I just wanted to be given information.' (Eleanor)

Debbie attributed this sense of insecurity to a lack of direction and guidance:

'There was no proper direction. No one seems to know what we were actually supposed to be doing. The direction was not really so clear, it was left too much to the students to do what they wanted.'

This sense of lack of guidance was echoed by two other participants who identified the tutor/facilitator as the expected source of guidance:

'I felt that we needed more teacher guidance to keep everybody together…unless you've got a tutor to keep it together it's just going nowhere.'

(Hannah)

Another participant, however, identified a lack of understanding of EBL as a factor which contributed to a sense of insecurity and apprehension:

'Could have done with a little bit more understanding what EBL is prior to starting the module...'

(Abigail)

However, by completion of the module many of the participants attributed a greater sense of self confidence to having experienced EBL.

'…it has also given me some confidence …knowing that I'm able to get the information which I want or let me check what is supposed to be done, or how we could have done it better …'

(Debbie)

Abigail captured the essence of what this programme entailed for many of the participants stating that this was:

'Something I hadn't done before, completely different way of learning… used to a more structured sort of lecturing. Had to learn how to learn.'

The nurses for whom this was the first exposure to EBL all agreed that they had to change their approach to learning. This entailed learning how to learn using the EBL approach. For the majority of the participants this was a positive experience with Gill stating that:

'It certainly suited me and my way of learning, I liked the style.'

One participant however stated that:

'[I] didn't really like it and preferred a conservative, classic style of lecturing and taking notes'

(Eleanor)

The majority of the participants were of the opinion that this module required extra time and work compared to other continuing education modules, which is encapsulated by Debbie's statement:

'I put in a lot of extra time …which was not accounted for…'

Indeed, despite being very positive about it as a learning approach, Abigail maintained that:

'If choice in courses [is available, I] would go for non-EBL, it's so time consuming.'

Most of the participants, though critical of how time consuming they found EBL, were optimistic about both its immediate and potential impact, with Gill declaring that:

'...it is important to keep you motivated and to keep you inspired and to keep you energized with your learning and because you're juggling work and family life as well you need to be entertained in a way and you need to feel satisfied and I think EBL does make you feel satisfied.'

The concept of EBL motivating self direction in learning and hence engagement in lifelong learning was a recurrent claim succinctly captured by Fiona:

'I could work for 30 years and if I don't continue to learn I'd be working on 30 year old information, so you need EBL, you need it there to support what you're doing, what you see in the ward can be supported by it or it can support what you're doing – you know I think it goes both ways.'

Participants were unanimous in attributing EBL with motivating the change to self-directed reflective learners, as demonstrated by Bronwyn, who commented that:

'I think it changed me as a learner, I became more independent. It's the student gaining the knowledge that they need rather than something that's been thrown at them from a lecturer. It's more adult learning.'

Pervasive throughout the data was the sense of enjoyment working in small groups brought the participants:

'Nicest thing about EBL module is working and laughing with the group, it's a fun way if learning.'

 (Bronwyn)

All participants emphasised that the diversity of experience, skills and knowledge within the learning groups was a rich source of knowledge and of interest.

One nurse agreed with the proposal that working within the learning group was reflective of working on a ward but suggested that lack of equal activity within the group hampered individual learning:

'Everybody's got to be proactive within the group for everybody to get something out of it. It's like the ward.'

(Eleanor)

However, other participants suggested that this lack of equality in contributions to group work was very reflective of life and could be handled by the group and used as a learning exercise:

'Teaches you how to handle the 'no doers' and the 'too doers'. Just like life.'

(Claudia)

'…sometimes you needed everybody to complete the task and not everybody put the same amount of weight behind it, you know, so that was the only down-fall of that. But you have to get on with it.'

(Hannah)

Eleanor, however, suggested that help is required from the group tutor/facilitator to manage such dynamics with reference to adult learning styles:

'it all depends on your group, if it knits together and you're all going for the same goal that fantastic, but if other people have got their own agendas within that group then unfortunately, unless you've got a tutor to keep it together it's just going nowhere. It depends how adult your learners are.'
(Eleanor)

While most of the participants were of the opinion that EBL was a good way of learning for nursing, some identified limitations to its exclusive use in nurse education. Abigail saw a place for EBL among teaching approaches for nursing education, suggesting that it could be:

'An aid to learning, but can't fulfil all you need to know.'

As EBL also underpins the undergraduate nursing curriculum in the location chosen for study, participants agreed on the aptness of using it in the Mentorship Preparation Pathway.

'[I] understand how they learn… understand the difficulties they have and what they are doing at college. Feel closer to my students because I understand, I can support them in a better way. Before I did EBL I didn't know what they were talking about … a big gap between us.'

(Abigail)

The ability of EBL to capitalise on the role of the mentor by inspiring a change in attitude and hence mentorship style is proposed by Gill who stated:

'It (EBL) has affected the way I manage my students, the way I taught and how I communicated with them ...it basically changed my attitude.'

Discussion

EBL as a way of influencing practice

These responses would support some of the claims made by the literature on EBL/PBL including its role in the promotion of critical reflective thinkers and developing problem solving skills. Brookfield (1987) highlighted the importance of being able to challenge assumptions about practice if nurses are to become critical thinkers. Engel (1992) and Barrrows & Tamblyn (1980) theorised that the very nature of questioning a problem encourages open minded reflective, critical and active thinking**.** With the patient clearly identified as the aspirational beneficiary, the critical analysis of practice lead sequentially to the search for evidence to support or challenge current practice. This search necessitated the development of skills to source and critique appropriate evidence, reference being made to a hierarchy of evidence. Many examples of academic and research skills acquired were cited by the participants, which reflect the findings of multiple studies on CPD (Hardwick & Jordan, 2002; Francke et al., 1995; Sheperd, 1995; Waddell, 1992). Significantly, EBL learning groups were identified as central to the development of these skills as well as a font for more information. It was believed that the interchange of ideas from different perspectives within the learning group contributed to developing knowledge that could be brought back to practice.

EBL as a way of learning for nursing

Concerns expressed by participants with regard to equal input and the division of labour in learning groups are reflected in the literature. 'Uneven group participation' has been identified as an issue in EBL/PBL (Biley & Smith, 1998; O'Hanlon et al., 1995) and has been charged with causing poor group dynamics if not managed appropriately. There is debate among the participants in this study, with regard to where the responsibility for handling such issues lies, i.e. within the group or with the group facilitator. This debate is echoed in the literature with Woods (1994) assigning the responsibility to both the students and facilitators. Woods (1994) suggests that for the EBL learning group to be effective, students need to feel secure with their group and tutors need to feel confident in dealing with group dynamics. Schilling (1995) cited in Hughes & Lucus (1997) adds that for EBL to flourish, a group has to undergo its own developmental process before trust among members and before productive work is established. Hughes & Lucus (1997) found that in their experience it took anywhere from six to eight weeks for a tutorial group to reach productive maturity based on biweekly meeting of about two hours each. Considering this finding, it could be speculated that some of the learning groups in which the participants in this study were involved did reach productive maturity within a shorter time frame.

Conclusions

The responses in this study indicate that participants believed that their practice of nursing had been positively influenced by engaging in EBL. However, some of the responses would suggest that the transition to a new educational culture requires greater time exposure than that offered by a Continuing Professional Development course of the duration of the Mentor Preparation Pathway Module. Inadequate exposure to EBL and insufficient tutorial support, in addition to limiting its effectiveness, risk promoting superficial learning rather than deep learning. EBL is more likely to meet its goals if it is used in a consistent manner throughout a degree programme rather than employed for one module alone.

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