

13. POSTGRADUATE NURSING STUDENTS' EXPERIENCES OF ENQUIRY BASED LEARNING AT NUI, GALWAY

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INTRODUCTION

This chapter reports on a research study that was undertaken at NUI, Galway which focused on the analysis of postgraduate students' experiences of Enquiry-based Learning (EBL). The aim of the study was to analyse students' experience of EBL, describe the skills they developed, and discuss influences on their learning process with particular reference to the impact of facilitation on the learning experience.

The purpose of this chapter is to guide lecturers who would like to move from a didactic style to a more student-led approach to learning and teaching. It may also assist lecturers who would like to be more creative in their teaching and who might be considering using Enquiry-based Learning methods of delivery. In the context of this research, the term Enquiry-based Learning is applied to define the method that was used. EBL was adopted at NUI Galway because it has a significant role to play in professional practice development (Price and Price, 2000; Price; 2001). It empowers students to take control of their learning (Dahlgreen and Dahlgreen, 2002) and enhances the development of skills that are transferable to the practice areas.

The Educational Context for the Study

In September 2004, the Higher Diploma in Nursing Studies (Mental Health) programme was delivered in the Centre for Nursing Studies at NUI, Galway for the first time. This postgraduate course is offered over one calendar year on a day release basis (see Figure 1). When students are not in college they are expected to continue to work in their own practice setting. The students were all experienced, qualified mental health nurses and they came from a range of backgrounds, bringing different perspectives and experiences to the programme. On successful completion of the programme, students were awarded a Higher Diploma in Nursing Studies (Mental Health). Following this award they are in a position to be promoted to the role of clinical nurse specialists. The programme comprises six theory/practice modules which includes this EBL module delivered in Trimester II. Module content is viewed as interconnected and interdependent. (see Figure 2).

Figure 1: Overview of Programme Structure - (Showing Direct Contact Time)


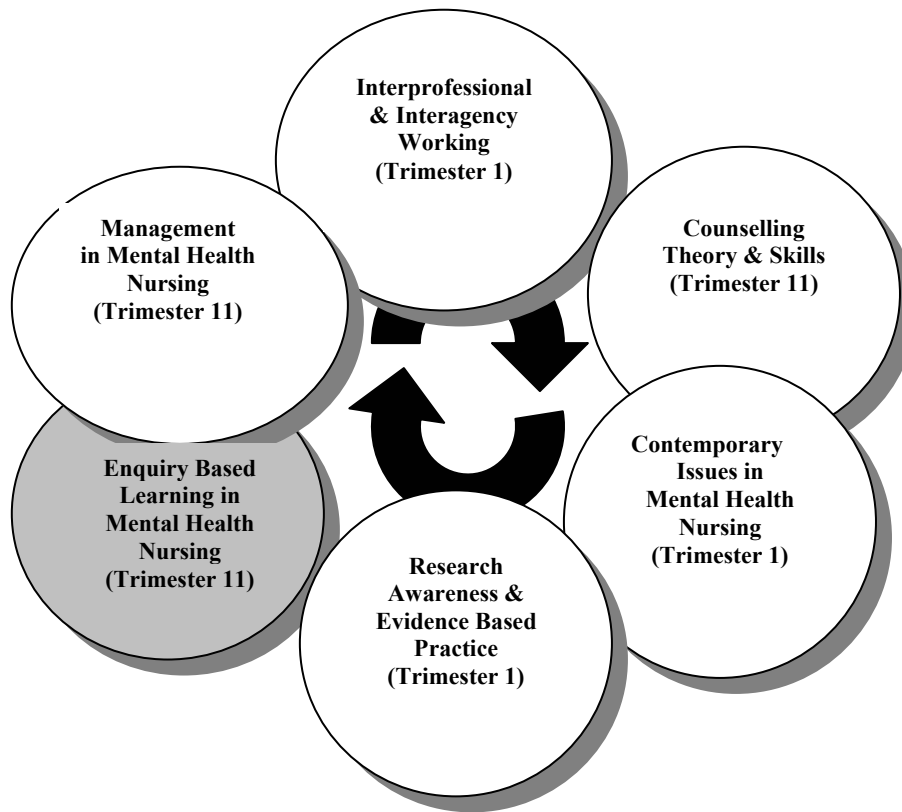
Trimester I (Twelve Weeks) (Sept –Dec)	Trimester II (Twelve Weeks) (Jan – May)	Trimester III (June – Aug) Students complete their reflective practice assignments.
Two days per week for three weeks (6 days). One day per week for nine weeks (9 days).	Two days per week for three weeks (6 days). One day per week for nine weeks (9 days).	
When not in college students remain in their own work setting		

Figure 2: Diagrammatic Representation of Programme Content – (Six Modules)



The module was conducted over twelve weeks. Throughout the module, three EBL scenarios resembling issues in clinical practice (an example of a scenario is given in figure 3) were presented as triggers (Norman et al, 1990) to the students.

Figure 3: An example scenario

Psychosocial interventions (education programmes for client/carers, family therapy, cognitive behavioural therapy, case management and assertive outreach) are becoming increasingly important in the care of people with mental disorders. What evidence is there to support the effectiveness of such interventions within the context of families as systems, whether they are functional or dysfunctional?

The process followed the pattern outlined in figure 4.

Figure 4: The seven step approach (Schmidt, 1983)

- Step 1. Clarify** – The clarification of terms and concepts not readily comprehensible
- Step 2. Define** – Definition of the problem
- Step 3. Analyse** – Analysis of the problem, resulting in ideas and suppositions
- Step 4. Sift and Sort** – Compilation of a systematic inventory of the explanations from step 3
- Step 5. Identify learning outcomes** – Formulation of these
- Step 6. Investigate and Learn** – Collection of additional information outside the group
- Step 7. Report Back** – Synthesis and testing of the newly acquired knowledge

There were 14 students in the module. Two groups of seven students within the EBL technique were each facilitated by two experienced lecturers throughout the process. I was one of these facilitators. The facilitators had undergone prior training in group facilitation skills, and were familiar with the EBL approach. The facilitators also had an experienced co-facilitator to oversee the process and give feedback.

The membership of each EBL group remained consistent for the duration of the module. At the beginning of the first facilitation, the two groups were presented with the scenario and they had three weeks to investigate each scenario (see figure 5). They then had to present their findings the class and include the following:

- An electronic reference list on each topic area
- A summary of learning achieved
- An evaluation of the group process and the EBL process

The three weeks also included four hours of facilitation by the two lecturers. The facilitation enabled the students to develop an understanding of the scenario and to discuss how they intended to enquire about the issues within the scenario. The role of the facilitators was to guide the learners through their own discovery through personal interaction, without teaching them in the traditional style and thus enhancing interaction (Wilkerson, 1992). The responsibilities of facilitation includes the facilitator acting as a role model and an enabler of positive practice, demonstrating skills and values which are essential both to the adult learner and to professional practice (Boud and Feletti, 2003).

Together the groups brainstormed using a flip chart, searching for a number of issues that may be connected to the scenario. Individuals have the opportunity to recognise their existing knowledge in relation to the scenario and also what they need to learn. Once this had been established they have to decide how they might meet their learning needs. They then decide on an action plan which is devised in line with the information that they have gained. If new issues arise within the facilitation, the groups will return to the research phrase of the process and organise another meeting to discuss further progress. In addition seven hours of self-directed study (Cook and Alavi, 1995), were scheduled into their timetable (see figure 5). The author would recommend that this is embedded into the working day for the students.

Figure 5: Example of Timetable			Week 5
Code	Time	Subject/Module	Session
	9.00-11.00	Enquiry-based Learning	Groups given Scenario 2 - facilitation workshop
	11.30-13.00	Enquiry-based Learning	Self-directed study
	14.00-15.30	Enquiry-based Learning	Self-directed study
	16.00-17.00	Enquiry-based Learning	Facilitation workshop (reporting back findings)
	17.00-18.00	Enquiry-based Learning	Self directed study
			Week 6
	9.00-11.00	Enquiry-based Learning	Self-directed study
	16.00-17.00	Enquiry-based Learning	Facilitation workshop (reporting back findings)
	17.00-18.00	Enquiry-based Learning	Self-directed study
			Week 7
	16.00-18.00	Enquiry-based Learning	Presentations (Scenario 2)

The module was 100% course work which was divided as follows:

- Written Presentation/report (30%)
- Oral Presentation/process (60%)
- Self and Peer assessment (10%)

RESEARCH METHODOLOGY

Rationale, Sample and Ethical Considerations

The need to capture the personal experiences and perceptions of participant's stimulated consideration of a range of qualitative methodologies. Qualitative evaluation research was utilised in this study. According to Polit and Hungler (1999) this is suitable in establishing the success of a programme or aspects of it. A focus group strategy was employed. The use of the focus-group method has expanded rapidly during the past decade (Morgan, 1997). Kreuger (1994) asserts that the purpose of this method is to use group interaction to produce data. Also, this method is effective when the aim is to investigate the way knowledge and ideas develop within a certain context (Kitzinger, 1996). EBL uses principles of group dynamics as part of the learning process and therefore the focus group is a congruent research method.

After the author explained the aims of the study to the fourteen students in the module, they agreed to form the sample. Verbal consent of willingness to participate in the study was obtained from the students. Approval was also elicited from the head of the department. According to Polit and Hungler (1999), informed consent requires respondents should be fully informed and that consent is given freely and willingly.

Data Collection

Two external interviewers who had experience with focus groups methodology facilitated the two focus groups. The interviewer in a focus group has the function of guiding the group rather than asking questions (Kreuger, 1994). Neither of these researchers knows the students and they were not responsible for their educational programme or student assessment. The discussions were held on the last day of completing the module. A semi-structured approach consisting of four questions (see figure 6) was used to guide the focus group discussions.

Figure 6: Questions that guided the focus groups

1. What were the students' feelings and views towards the EBL experience?
2. What effect if any EBL had on the development of other skills for the student for example problem solving skills, time management skills, I.T. skills, clinical skills, communication skills, group working skills?
3. To what extent had EBL influenced the students learning process?
4. To what extent had facilitation impacted on the learning experience?

The first three questions had been identified as issues by students' ongoing feedback sessions in the module and the literature. The last question was designed to provide feedback to the lecturers to see if any issues would stand out for improvement. Identical questions were asked in the two focus groups, and the sequencing of the questions was the same to allow for a systematic analysis.

Two moderators (also not involved in the educational programme or student assessment) took field notes. While moderators introduced themselves to the groups, the students did not, in order to ensure anonymity on the transcripts. To promote candour in the students' responses,

confidentiality was stressed. The students were also assured that any report of findings would be generic and not attributed to specific individuals. Participant verification occurred at the end of each of the two focus groups as the moderators summarised key points and the participants were able to respond to the summary.

Analysis

The interview data were audiotape-recorded, and transcribed verbatim. Ethnographic content analysis directed the data analysis (Crabtree and Miller, 1992). I analysed the two transcripts with another lecturer to pinpoint key words, phrases and concepts. Similarities and potential relationships among essential words, phrases and concepts, within the focus groups, were highlighted and deliberated, and initial coding categories were indicated. The elements of each transcript were then analysed using these categories, and supplementary codes for newly emerging topics were developed as needed. Coding discrepancies were considered through discussion between myself and the lecturer. The last stage of analysis involved the reduction of all data sources into the final coding categories, the development of major themes and the identification of exemplar quotes illustrating themes. Once the two transcripts were analysed, preliminary findings were presented to two lecturers for feedback and discussion. The full findings were then extended to all the nursing lecturers.

FINDINGS

The responses will be discussed as a whole rather than the individual groups. The major themes that became visible in response to the key questions are described below.

What were the students' feelings and views towards the EBL experience?

Six major items were identified by the students in response to this question (see figure 7). Both focus groups highlighted the concept of adult/lifelong learning as an important element of EBL. They emphasised how students are encouraged by each other thus helping them develop their team working skills. Peer support, with the sharing and generating of ideas from a broader perspective, was noted. They made reference to the working in small groups. This made them feel that they had a sense of loyalty and commitment to each other. They suggested that it was about every one taking initiative and responsibility for their own learning. Interestingly, a comment was made that there was an overload of information. The challenge in this was deciding what was appropriate. The relevance of clinical practice and integration was highly praised by the groups. They commented on the deeper learning which enhanced thinking.

Figure 7: Students experiences of Enquiry Based learning

- Adult/life long learning
- Peer support
- Responsibility for learning
- Clinical relevance and integration
- Deeper thinking and learning
- Unfamiliarity with the concept

The following comments include a range of feelings about the experiences of EBL:

It's great, it's based on adult and lifelong learning principles, it's about involvement, and I think by the involvement that we understand better, deeper thinking and learning

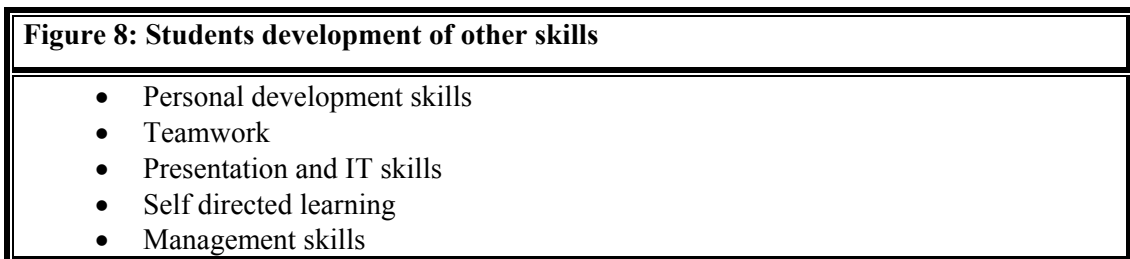
Having the responsibility for our learning was great

Anxious, excited, combination I suppose. It helps us settle down, EBL allowed us to focus, instead of having a straight lecture. The process, the learning, like in the classroom you may not take anything in or very little, whereas learning is about involvement, you are still involved when you go away from the group and actually look things up, whereas the lecture format, you tend to leave it

Difficulty initially getting into the process, and having to take responsibility for our own learning

What effect, if any, had EBL on the development of other skills for the student for example problem solving skills, time management skills, I.T. skills, clinical skills, communication skills, group working skills?

The students were very articulate in their description about the skills they developed throughout the module. In fact, the responses to this question could be divided into two parts: skills development and personal attributes. From their perspective, this can be summarised in figure 8.



The following quotes highlight some of their descriptions of the skills:

We became more professional with presentations as the process moved on. Our IT skills and presentations skills really improved.

As with EBL we had to present each EBL scenario, develop problem-solving skills, presentation skills – had to stand up in front of people and talk to other people. Computer skills – we actually moved on to PowerPoint.

It inspires you to develop skills to look things up on a computer in the library, making you more dynamic.

At the beginning we recognised that our time management skills were crap. We soon learnt more of these skills and we became better as the time went on.

Students perception of personal attributes are best exemplified in the following quotes:

EBL helps you to look out for each other – helps you work in a group and helps to work better in a team.

You develop a sense of loyalty to the group, if you were absent, you felt like you were letting the group down.

To what extent had EBL influenced the students learning process?

Students' views about this were positive and in particular they commented on the clinical relevance to their practice (see figure 9).

Figure 9: EBL influences on the students learning process

- Transferability of skills
- Application of content to clinical or 'real life' situations
- Support/Guidance
- Information could be drawn from the other modules

The following comments by the students in response to the above question include:

The array of skills can be and will be transferred in our clinical areas.

It is a concept you can take back to the work environment and use, we as nurses tend to solve the problem straight away, whereas when you look at it in more depth in a group situation like this, there is a lot more factual information, it's a way of solving and looking deeper at issues in nursing practice.

The virtue of coming back to a group made it most enjoyable. You could discuss and challenge someone just to listen to you. We don't have this opportunity at work sometimes.

The other modules in the programme helped us with the information gathering

To what extent had facilitation impacted on the learning experience?

To conclude the two focus group discussion, students were asked about the impact of facilitation on the learning experience. They were advised that this information would be reported back to their lecturers. Students gave mixed yet invaluable responses (see figure 10).

Figure 10: Impact of facilitation on the learning experience

- Group focus
- Helped clarify roles
- Provided information
- Role model
- More visibility
- Confusion

The students' feedback to the lecturers included the following comments:

They give us direction, we couldn't get lost – helped us focus and clarify roles/issues.

I felt the balance was right [role of the facilitator].

I think the role of guiding and prompting was great – great role models.

I would prefer the role of the facilitator to be more visible.

Confusion at times, whether they were meant to be there or not I was unclear initially what their involvement was.

DISCUSSION

The aim of this study was to research students' experience of EBL and describe the skills they developed. This research also explored influences on their learning with particular reference to the impact of facilitation. Overall the findings indicated that students benefited in many ways. They described both positive and negative experiences of the EBL module. This student group were more experienced and mature than many other students and this may have contributed to their positive response to this type of learning. However this is sometimes a culture shock for some students but their engagement and enjoyment of the module was commented many times.

It was highlighted that EBL promotes the concept of adult lifelong learning. The lifelong learning aspect is supportive of previous research (ENB, 1994; Nolan and Nolan, 1997). In addition the learning as a team, peer support and the sense of loyalty and commitment to each other were important elements of the process. Also the responsibility for their own learning was of major significance (Morris and Turnbull, 2004). Students who take responsibility for their own learning have been shown to be more likely to help clients control their care (Burnard, 1984).

Students' comments about the development of skills were consistent with the literature (Palmer, 2002). From their perspective, the skills they developed were very valuable to their personal and professional development. This included the development of technical skills, in particular the development of formal presentation skills. Many of the participants considered the benefits of transferring presentation skills to their clinical practice. This lends support to the view of Kim and Kenyon (2002), who identify formal presentation skills as a valuable transferable skill, essential for all health care workers.

Interestingly, the students' comments about how EBL influenced their learning process were very positive. The main characteristic that they emphasised was the transferability of skills and content into clinical situations. Rogers (1969) asserts that, individuals will only learn what is meaningful to them. The fact that they linked the other modules in the programme to their learning was enlightening.

The study has also been enhanced by the students' observation of the extent to which facilitation impacted on their learning experience. It is worth noting that they were encouraged to be frank in their comments. They were made aware that the lecturers would receive their feedback anonymously. Some perceived the facilitators as performing their correct function. Others wanted the facilitators to be more directive. Jaques (2000) refers to the idea that where a visible authority figure is present, the expectation exists that the primary responsibility for each person's actions and their consequences remains with the authority figure. The facilitator

cannot be all things to all people but this division of opinion does reflect the difficult and complex role (Doring et al, 1995; Andrews and Jones, 1996). At the same time we were attempting to empower students as independent learners in EBL and therefore the tutor should have a facilitative rather than a directive role. (Harland, 2002).

Throughout the module, the degree to which students were able to articulate their experiences of EBL was impressive. Lecturers observed the students' accuracy and insight. There were several aspects that were taken into consideration as a result of this feedback. Some of the lecturers have attended EBL conferences and have liaised with experts in this field. We are continuing to have ongoing development in relation to group facilitation skills workshops and the role of the lecturer in such a process.

CONCLUSION

The study highlighted the students' initial difficulty in adjusting to the process and their views on the limitations of this approach. Towards the end of the module they seemed to be adapting to EBL and described associated personal benefits. EBL facilitated the students to become more self-directed, autonomous and responsible learners. The study also highlighted areas for future research. It would be helpful to meet with the groups again approximately eighteen months after completion of the course, to explore further the impact of EBL on their clinical decision making and professional development.

This study is among the first to incorporate postgraduate nursing students experiences of EBL into a nursing and medical faculty development programme at NUI Galway. As a result of these findings other lecturers have been very interested in the students' experiences and their comments and it has provoked a lot of discussion.

The students' experiences of EBL are very valuable and I see no reason why even conventional first year undergraduates would not be advantaged from an EBL approach. Glendon and Ulrich (1992) assert the notion that nurse educators are challenged to find innovative teaching strategies that help students think critically and interact skilfully with others. From this evidence EBL is potentially a strategy to achieve this. Finally, both ongoing development and research needs to focus on the way students experience and understand the programmes in which they are involved.

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