Employer Perceptions of Knowledge, Competency, and Professionalism of Baccalaureate Nursing Graduates from a Problem-Based Program

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Abstract

Employer evaluation of graduates is a critical component of professional program evaluation and contributes a viewpoint rarely reported in the literature. It has been proposed that Problem-Based Learning (PBL) enhances knowledge acquisition, clinical competency and professional behavior. Students assume the role of a registered nurse as they work through real practice scenarios on a daily basis in the classroom. The purpose of this study was to explore employer perceptions of graduates' knowledge, competency and professionalism, following completion of a PBL program. Nurse employers (N=53) participated in 10 focus group discussions. Four main themes were derived from employer descriptions of their experience with PBL graduates: still rough around the edges, we want them to succeed, a new generation of practitioner, and potential to lead the profession into the future. Please add what the implications of these findings are to nursing education.

KEYWORDS: problem-based learning, employer perceptions

Erratum

The abstract for this article, published on November 8, 2009, should read:

"Employer evaluation of graduates is a critical component of professional program evaluation and contributes a viewpoint rarely reported in the literature. It has been proposed that Problem-Based Learning (PBL) enhances knowledge acquisition, clinical competency and professional behavior. Students assume the role of a registered nurse as they work through real practice scenarios on a daily basis in the classroom. The purpose of this study was to explore employer perceptions of graduates' knowledge, competency and professionalism, following completion of a PBL program. Nurse employers (N=53) participated in 10 focus group discussions. Four main themes were derived from employer descriptions of their experience with PBL graduates: still rough around the edges, we want them to succeed, a new generation of practitioner, and potential to lead the profession into the future."

Nursing graduates should be knowledgeable, competent and professional. These qualities will be reflected in the practice of skilled practitioners who are able to make sound clinical judgements resulting in quality patient care. The ultimate aim of a professional education program is improvement of practice in the profession. Accountability in nursing education programs includes implementation of comprehensive evaluation plans (Ryan & Hodson, 1992). Employer perceptions of graduates from baccalaureate nursing programs are a critical component of program evaluation and contribute a point of view that is rarely reported in the literature (Barrett, Arklie & Smillie, 1996; Howard, Hubelbank, & Moore, 1989; Lowry et al. 2000; Ryan & Hodson; Stetson & Romeo, 1996).

Problem Based Learning is increasingly utilized as an approach to nursing education (McLoughlin & Darvill, 2007; Rideout & Carpio, 2001; Rowan, McCourt, Bick, & Beak, 2007). It has been proposed that PBL as a teaching strategy enhances knowledge acquisition, clinical competency, and professional behavior by requiring learners to assume the role of nurses as they work through scenarios in the classroom setting (Williams & Day, 2007). It is anticipated that PBL graduates will develop a solid theory base, clinical competency and professionalism but there is currently no research exploring the achievement of these outcomes from an employer perspective. The purpose of this manuscript is to contribute current information about employer perceptions of PBL nursing graduates.

LITERATURE REVIEW

Health care systems and university nursing graduates will continue to face an era of unprecedented world change (Tompkins, 2001). Reflecting on the rapid changes in the health care environment, Valanis (2000) identified the following qualities of a competent 21st century nurse: an independent practitioner who critically reflects on practice; self-directed and actively involved in continuous learning; encourages colleagues to engage in continuous learning; encourages patients/clients to actively engage in self care; manages care across facility boundaries through interdisciplinary collaboration; promotes the health of the community through interdisciplinary collaboration; ensures quality and cost effective care; and exerts leadership in policy development from local to international levels. Therefore it is critical that nursing education programs provide opportunities for future graduates to develop these skills and abilities.

Theories about how people learn have also evolved. Early behaviorists claimed that it is observable behavior that indicates whether or not the learner has

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learned (Skinner, 1974). Later on, cognitive psychologists conceptualized learning as an internal process and suggested that the depth of learning depends on the learner's existing knowledge structure, how well the learner processes information, how much energy is expended during the process and the depth of the processing (Craik & Tulvig, 1975). This was followed by constructivist theorists who claim that learners actively contextualize information according to their own reality through observation, processing, interpretation and integration into their existing framework of knowledge (Duffy & Cunningham, 1996).

Learners in PBL acquire knowledge and skill in nursing by encountering authentic professional practice situations as the initial stimulus and focus of their learning activity (Barrows, 1998; Boud & Feletti, 1998; Williams, 2004). In a small tutorial group of 9-12, guided by a faculty tutor, learners grapple with the complexities of practice situations. In phase one of the PBL process, a tutorial group of nursing learners and a faculty tutor discuss a real practice situation (often presented as written scenario). Learners are encouraged to explore the situation with a focus on health, strengths of the client, and their role as nurse in the situation. They begin by identifying what they do know based on their previous experience, what they do not know, and what they need to know in order to interact as a nurse in the situation. Learners formulate explanations, clarify understanding through negotiation, critique classmates' comments, establish learning goals, and create an action plan to meet those goals. During the second phase of PBL learners activate their plans to meet their learning goals by engaging in self-directed study by themselves or in pairs. They determine how they will learn the knowledge and skills they have identified and what credible resources they will use to assist them. In phase three learners reconvene and continue to explore the situation, sharing what they have learned and integrating new information into the context of the situation. They are encouraged to connect new concepts to old ones and may continue to identify new learning issues. During this phase, learners summarize what they learned and discuss how their knowledge and skills might be used in future nursing practice situations. Ultimately, learners should feel confident interacting in this or a similar situation. In the fourth phase of each situation discussion, learners critique resources and research methods utilized by themselves and their peers during self study. Each learner also has an opportunity to assume the leadership role of the group for a designated period of time (Williams & Day, 2007). This opportunity assists students in developing leadership skill and ability which is so important in today's rapidly changing health care environment.

There is some program evaluation data from PBL graduates suggesting that PBL is effective in achieving program outcomes related to knowledge,

practice and professionalism (Chikotas, 2009). However, there is minimal evidence from employers. Furthermore, there is no published evidence related to employer perception of graduates from PBL undergraduate nursing programs. Therefore, it is essential that employer perceptions of PBL nursing graduates be explored and described.

PROGRAM DESCRIPTION

The context for this study is a four year undergraduate baccalaureate nursing program in Western Canada. All support courses offered throughout the program reflect a traditional three hour per week lecture approach to teaching. All theoretical and clinical nursing courses offered throughout the four years of the program reflect a PBL approach to learning. During the nursing theory courses, small groups of 12-15 students meet with a faculty tutor for three hour tutorials twice a week over a six week period of time. Clinical courses are also offered over a six week period and clinical post conferences reflect a PBL approach for the discussion of student assigned client care situations.

STUDY PURPOSE

The purpose of this descriptive study using focus group interviews was to determine if the PBL program was effective in developing knowledgeable, professional and competent practitioners. The following questions were used to guide the focus group interviews with employers:
- How would you describe the knowledge, clinical competency and professional behavior of PBL nursing program graduates?
- What strengths do you think PBL nursing program graduates display?
- What areas of knowledge, clinical competency, and professional behavior do you think PBL nursing graduates need to further develop?

METHODOLOGY
Design

A descriptive, qualitative study employing focus groups, was developed to answer the research question. Ethical approval for the study was obtained from the university Health Ethics Board.

Traditionally, data about employer perceptions of new graduates has been obtained through surveys. However, the return rate using employer surveys is often very low (Lowry et al. 2000). Howard, Hubelbank, and Moore, (1989) were

the first to suggest the use of employer focus groups to evaluate baccalaureate nursing graduates while Stetson and Romeo (1996) suggested telephone interviews. Because employers of new graduates were numerous and geographically diverse, a qualitative design using focus groups was used for this study.

Procedures

Participant recruitment. Nursing faculty who were members of the Evaluation Committee were asked to identify six to eight employers from each of several program sites who had worked with graduates of the PBL program. This initial contact person may have become a focus group participant but often the individual would suggest alternate participants. This "snowball effect" created reassurance that participant bias was minimized.

A letter of invitation was sent to all identified employers approximately one week prior to the focus group interview. In the letter employers were asked to think of two to three graduates whom they had hired over the last three years and to keep those individuals in mind as they participated in the focus group interviews.

Data collection. Ten focus group interviews were convened to determine employer perception of the knowledge level, clinical competency, and professionalism of PBL nursing program graduates. Participants (n= 53) included hospital unit mangers, public health and homecare care managers and administrators. The location and number of focus groups and employers are presented in Table 1.

Table 1

Employers, Location and Number of Focus Groups

	Large city	Small city	Rural
Employers			
Hospital	3	1	1
Community	2	1	1
Combination of hospital and community			1

An experienced nurse educator, who was a doctoral student at the time, was hired as a research assistant (RA) to moderate the focus group interviews and

participate in data analysis. At the beginning of the focus group interview, participants completed a confidentiality agreement. A preset script was used to introduce the focus group interview and the interview questions did not vary significantly from one focus group interview to another. At the end of each interview, the RA and researcher met to discuss the interview and any possible changes to the interview guide. Seeking verification of the key points from participants at the end of each focus group interview was one way of establishing validity of the information. All interviews were audio-taped and then transcribed.

Data analysis

Independent review of the interview transcripts and audio tapes was completed by the RA and one of the researchers. They used a combination of broad brush coding and fine grained (line by line) coding of substantive content (Kidd & Parshall, 2000). This kind of cross coding enhanced the analysts' ability to discriminate between levels of the same category or different points of disagreement. Categories were subsequently re-coded to further identify attributes and detect any patterns in the data. Themes with actual quotes were generated from the re-coding. Internal consistency was enhanced by having the RA participate in all interviews and debriefings, as well as take initial responsibility for conducting the analysis. Content and construct validity were supported by identification of similar viewpoints on the same issue in multiple focus groups that were geographically dispersed.

FINDINGS

Findings were enriched by the interaction among focus group participants who felt free to challenge one another before reaching an understanding. Employers commented that the current practice environment presented many challenges for the new graduate. Acuity in both acute care and community was higher than it had ever been and new graduates were expected to care for larger numbers of individuals. There were fewer staff resources and therefore less support for new graduates in all practice settings. Within this context, four main themes were derived from the employers' descriptions of their experience with graduates from the PBL program: *still rough around the edges*, *we want them to succeed*, *a new generation of nurse*, and *potential to lead nursing into the future*.

Still rough around the edges

Employers indicated that PBL graduates were "better grounded in theory [than previous grads] and "competent when they graduate." While employers

recognized that PBL graduates start practice with a solid theory base, they suggested that they were still "rough around the edges." They recognized that there were "a lot of skills they haven't done – catheter, NGs, chest tubes." However, employers also indicated that when PBL graduates encountered a new skill, they usually knew the theory behind it and only required supervision to actually do the skill. Some employers described PBL graduates as initially being "task focused" but that given about six months time they learned to "focus on their patients" and also other patients on the ward. Other employers did not necessarily agree. They suggested that PBL graduates were able to think more broadly about patient care which they associated with "honoring the roles of nurses."

Employers also commented on the confidence level of the PBL graduates indicating that "they graduate with a certain degree of confidence." While there were certain aspects of nursing practice that they knew well they didn't know other aspects but were "not afraid to ask questions if they were uncertain." PBL graduates were described by some employers as being able to establish priorities and manage their time. "They will say, 'no, I need you to do that and I need to do this'. They will prioritize and share their prioritizing with others which doesn't always go over so well!!" Other employers indicated that "time management is often an issue" and PBL graduates, like other new graduates, required further experience in being able manage their time well.

Employers indicated that in general it took PBL graduates anywhere from three to twelve months to become competent. They suggested that this was not different from before PBL was implemented. Some employers noticed that PBL graduates seem to "move through the novice phase quicker than previous graduates". They are "enthusiastic and eager" to learn. Employers acknowledged that PBL graduates had "quite a bit to learn" and "they recognize that."

We want them to succeed

Some employers wondered whether the current expectations for beginning graduates were realistic. It was suggested that employers expected new graduates to be "at the same level that we are right away and we don't give them the time to get there" forgetting that "it takes time to get there." Employers were concerned that they didn't "seem to have the same opportunities to protect them for the first little while" and that "they really have to take full responsibility within a short period of time." Overall, employers were adamant that they wanted new grads to succeed. They felt strongly that they had a crucial role to play in making sure new graduates were provided with a good solid environment and exposed to strong

clinical settings. Employers indicated that they had an obligation to support their learning and their continued learning through mentoring and coaching. If this occurred employers suggested that new graduates would be more likely to stay in the profession.

A new generation of nurse

Employers identified behaviours that could be attributed to a "new generation of nurse". While most PBL graduates were considered to be professional in their behavior, employers struggled to explain some of the unprofessional behaviors that they were seeing during job interviews and occasionally in practice. Some employers thought that what they were seeing was a generational phenomenon as they were also seeing similar behaviors in medical learners for example "I think this generation is just cockier – sometimes disrespectful – a kind of 'you're lucky to have me' attitude. Others thought that maybe the behaviors were associated with the uncertainty of "not knowing the system and how you work it." Employers thought that PBL graduates were very quickly associating with the union and union thinking, suggesting that "they have a union mentality [ie.,] 'if I don't like the hours I will quit – I will go casual – there's lots of jobs'. These employers indicated that they felt some PBL graduates viewed nursing as a job not a commitment and suggested that their highest absentee rate was with their new graduates. On the other hand other employers indicated that they valued their assertiveness, "I actually applaud them for sticking up for themselves and not subjecting themselves to what we did" and "they have no problem saying to a peer 'you said ---- and I disagree so could we just talk about it'. "I would never have done that as a new grad."

Employers acknowledged that the majority of new graduates demonstrated certain strengths that they attributed to the PBL program. As one employer said, "I like the way they think – how they problem solve. I do think they problem solve in a different way. I see them using critical analysis with more confidence, more ease. They are way more evidence based." Another employer suggested that PBL graduates were much more aware of their professionalism than graduates used to be [ie.,] 'they are aware of nursing practice standards and the code of ethics'. Employers suggested that even as new graduates "their role as advocate is evident." They also indicated that PBL program graduates talked more with patients and negotiated with them. They were described as "comfortable interacting with individuals and families and were able to plan from "admission to discharge." A major strength of PBL graduates was their willingness to continue learning. Employers suggested that PBL graduates knew what they didn't know

and were willing to seek out information, taking responsibility for their lack of knowledge.

Potential to lead us into the future

Employers indicated that PBL graduates embody many characteristics that will enhance their potential to effectively lead nursing into the future. PBL graduates "wonder why things are the way they are. They will look things up on the internet. They don't mind letting me know the latest research." According to employers, PBL graduates don't take things at face value like they have in the past. They question each other with such questions as: Why? Where did you get that information? What is the research on that? They look for best practice. Employers also commented that "they are more willing to take on responsibility within the team. They look for team leading experience" and "they are excited about doing charge." Employers indicated that "lifelong learning seems stronger in the PBL program" They suggested that new graduates were self directed in their approach to learning and very current in their knowledge.

Employers identified several additional leadership strengths that PBL graduates brought to the clinical area which have not been identified in the literature in relation to traditional program graduates. Employers commented that PBL graduates were strong advocates for their patients, comfortable interacting with patients and families, and assertive in communicating with interdisciplinary colleagues. Graduates could competently communicate prioritization of patient care and considered continuity of care in their practice - thinking about discharge at the point of admission. These were considered definite strengths. PBL graduates also displayed better research skills than their traditional program counterparts and were willing and able to take responsibility for their own continued learning.

DISCUSSION

From employer comments during focus group interviews, it is clear that the majority of PBL program graduates demonstrate the essential qualities of a competent 21st century nurse (Valanis, 2000). Most of the employer comments related to clinical competency and professional practice. PBL graduates were considered to be better grounded in theory than previous traditional program graduates and had enough knowledge to be able to apply in different situations. These findings were consistent with those of Lowry, Timmins and Underwood (2000) and Barrett, Arklie, and Smillie (1996) who studied traditional program graduates following the introduction of a more integrated curriculum.

Although PBL graduates were considered to be clinically competent, there was some concern that they tended to focus on tasks, at least initially. This behavior seemed to dissipate over the first six months in practice, a finding congruent with that of Barrett, Arklie, and Smillie (1996). There was also some concern about basic skills that PBL graduates had not practiced clinically as students. However, employers acknowledged that PBL graduates did know the theory underlying the skill. Lowry et al (2000) reported similar findings; however, Ryan and Hodson (1992) found that employers perceived graduates to function at above expected levels with nursing skills. Time management was identified as an area of concern and this was also reported by Lowry et al. This is an interesting finding as the PBL students spend 10 weeks in a preceptor experience at the end of the program. The intent of this experience is for preceptors to allow students to assume the entire graduate nurse patient assignment as a way of developing time management skills. It could be that this is not happening to the degree intended.

Employers in the current study and those in Barrett, Arklie and Smillie's (1996) study commented on the excellent critical thinking ability of graduates. These employers as well as those in Barrett et al.'s and Ryan and Hodson's (1992) studies emphasized the high quality of team skills that the graduates exhibited.

Like those in Stetson and Romeo's (1996) study, these employers observed that if PBL graduates needed specific information, they could quickly find it. The difference between the groups of graduates was that PBL PROGRAM graduates were able to access information more quickly if they had access to the internet. They were also perceived to use research evidence to support their care much more than previous traditional program graduates.

Many comments related to professional behavior. Although there were some concerns about professional behavior employers generally attributed them to PBL graduates being part of the "millenium generation" since such behaviors were common to other health discipline graduates. Some employers suggested that the accompanying assertiveness was evidence of a stronger link to the union rather than the profession while others thought this assertiveness was a sign of early professional maturation. Like those in Lowry, Timms and Underwood (2000) and Barrett, Arklie and Smillie's (1996) studies, these employers were impressed with how self directed the PBL graduates were in their learning. Graduates were described as being far more self directed than traditional program graduates.

Employers identified strengths that are not reported in the literature. Graduates were described as willing to take responsibility within the team; they were excited and confident about being in charge. They were described as confident but willing to question when unsure. They did not "take things at face value" but questioned with a goal to ensuring best practice.

CONCLUSION

This study provides information about the strengths and areas for improvement of four year PBL undergraduate nursing curriculum graduates. Study findings can be used in subsequent program accreditation processes. The study also provides information about the efficacy of using focus group interviews to collect data about employer perceptions. Spontaneity and inclusivity were very evident in the focus group interviews. Participants clarified their own views, and challenged those of their colleagues.

This study is the first one of its kind to report on employer perceptions of PBL nursing program graduates. The majority of employer feedback about the graduates of the PBL undergraduate nursing program indicated that they were satisfied with the graduates' level of knowledge. Although some graduates needed to brush up on basic nursing skills and care, they were considered to be competent overall. With few exceptions, graduates were described as professional in their behavior and displayed many behaviors considered valuable for future nursing leaders. Clearly using PBL as a teaching approach to undergraduate nursing education is congruent with the goal of graduating knowledgeable, competent, and professional nurses.

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