Nursing students’ perceptions of effective problem-based learning tutors


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Abstract

Aim To explore baccalaureate nursing students’ perceptions of what makes an effective tutor in problem-based learning courses, and the influence of effective teaching on students’ learning and experience.

Method Students enrolled in all four years of a baccalaureate nursing programme completed online surveys (n=511) and participated in focus groups (n=19). Data were analysed and combined using content analysis.

Findings The data were summarised using five themes, the ‘5 Ps’ of effective teaching in problem-based learning. Nursing students perceived effective problem-based learning tutors to be prepared with knowledge and facilitation skills, person-centred, passionate, professional and able to prepare students for success in the nursing programme. Effective tutors adjusted their approaches to students throughout the four years of the nursing programme.

Conclusion Effective teaching in problem-based learning is essential and has significant effects on nursing students’ learning, motivation and experience. Important attributes, skills and strategies of effective problem-based learning tutors were identified and may be used to enhance teaching and plan professional development initiatives.

Keywords
nurse education, problem-based learning, problem-based learning tutors, qualitative research, student learning

Background

Problem-based learning

Problem-based learning is a student-centred, active learning approach in which a problem is used as the stimulus for learning (Barrows 2000). A teacher in problem-based learning is known as a tutor, acting as a guide or mentor for the student. Tutors help students determine what they need to know, in what sequence they should learn, and what resources are required to facilitate learning (Neville 1999). Students are responsible for their learning, and the tutor’s role is to facilitate collaborative creation of new knowledge among a group of learners (Barrows and Tamblyn 1980). The problem-based learning tutor is a facilitator of the student’s learning, and their interventions...
lessen as the student progresses and undertakes increasing responsibility for their learning. This differs from traditional teacher-centred approaches to nurse education, in which the teacher is considered an expert in content delivery and imparting knowledge. The most commonly reported benefits of problem-based learning are that students are better able to apply knowledge to new problems, and use more effective self-directed learning strategies than students who have learned using traditional approaches (Hmelo-Silver and Barrows 2006).

**Study context**

This study was conducted in a collaborative bachelor of science in nursing (BScN) programme in Canada. It was part of a larger study that explored what makes an effective nurse educator in clinical practice throughout the four years of the BScN programme (Matthew-Maich et al 2015).

The BScN programme is based on a constructivist learning paradigm that is shaped by self-directed, problem-based, small group learning approaches. Self-directed learning is an educational approach in which the individual is in control of their learning (Knowles 1975). In this problem-based learning setting, students work in groups of 10-12 students and encounter an individual, family or group through a multimedia narrative, known as a care scenario, which is designed to engage them in the learning process. In this model, the term ‘problem’ refers to a learning problem for the student, rather than a patient problem.

The problem-based learning process that students were engaged in is presented in Box 1. Students are introduced to the problem-based learning process in the first term of the BScN programme and core nursing courses continue to be offered in a problem-based learning format throughout the programme.

**Literature review**

The existing literature about what makes an effective problem-based learning tutor was explored, and three main areas were identified:

» Level of content or subject matter expertise of the tutor.

» Role of the problem-based learning tutor as a facilitator of learning.

» Effect of other contextual factors.

**Level of content or subject matter expertise of the tutor**

Several studies have investigated the effect of the problem-based learning tutor’s level of content or subject matter expertise and how this might be linked to students’ learning. In a meta-analysis of 94 quantitative studies on problem-based learning, Leary et al (2013) found no significant difference in students’ learning between tutors with content expertise and those without. Dolmans et al (2002) analysed the results of 10 years of problem-based learning research on the effect of tutor subject matter expertise and students’ achievement on tests, and identified varied results. Some studies found higher test results for tutorial groups where the tutor had content expertise, whereas other studies showed equal student test scores for groups with content expert and non-content expert tutors. Schmidt and Moust (1995) investigated students’ perceptions of effective tutors, and found that a strong knowledge base about the topic of study was considered an important characteristic.

Dolmans et al (2002) investigated differences in the problem-based learning process between content and non-content expert tutors. Their research showed that tutors who are more familiar with the subject matter tend to take a more direct

## BOX 1. Problem-based learning process

1. A care scenario is presented to the group of students, terms are reviewed, and hypotheses generated.
2. Learning issues and information sources are identified.
3. Information is gathered and independent study occurs.
4. The knowledge acquired is discussed and debated critically.
5. Knowledge is applied to the care scenario in a practical way.
6. Reflection on the content and process of learning occurs.
role in the tutorial group, answer questions more quickly, speak for longer and more often, and suggest more discussion topics than those who are not familiar with the subject matter. They found that more time tended to be given to teacher-directed activities, such as teacher-initiated critical questions or applied learning activities, when the tutor is a content expert (Dolmans et al 2002). Content expert-led groups generated almost twice as many learning questions to explore self-directed study, and students spent almost twice as much self-study time per problem-based learning case scenario as groups led by non-content experts. Tutorial groups led by tutors with less subject matter knowledge tended to focus on managing group dynamics and using positive group facilitation skills. These findings emphasise that the student’s learning is affected by a range of complex factors; not only the level of the tutor’s content knowledge.

Role of the problem-based learning tutor as a facilitator of learning

Another area of problem-based learning research focuses on the facilitation skills of the tutor. Leary et al (2013) examined the role of training in facilitation for tutors. Their meta-analysis found no difference in students’ learning between tutors with facilitation training and those without. In another study, focus groups with students identified that a lack of facilitation skills was a major contributing factor to the ineffectiveness of some problem-based learning tutors (Lekalakala-Mokgele 2010). Leary et al (2013) stated that it was essential for tutors to shift from traditional teaching methods to a facilitative process to ensure problem-based learning is successful. Spronken-Smith et al (2011) found that tutors who facilitated learning, rather than transmitting knowledge only, were rated more effective by students. Student and faculty staff’s perceptions of different teaching styles in problem-based learning revealed that students rated teachers who were collaborative and facilitative as more effective than those who were suggestive or assertive (Kassab et al 2006).

It is evident from the literature that faculty staff should be trained in facilitation skills to optimise the effectiveness of problem-based learning. Yew and Yong (2014) examined specific characteristics of effective problem-based learning facilitators, and identified qualities such as being kind, caring, approachable, helpful, professional, and able to relate to students as important. They also found that teachers who motivated students and fostered a positive learning environment with clear expectations were valued highly by students. Subject matter expertise was rated important; however, students in this study rated social and facilitative skills as the most important skills for effective problem-based learning tutors. Actual tutor facilitation skills were rated lowest in the study, emphasising the requirement for ongoing teacher training to develop effective problem-based learning facilitation skills.

Effect of other contextual factors

Most research on problem-based learning tutors has focused on the tutor’s level of content expertise and the importance of training facilitation. However, a variety of other factors are relevant to students’ learning in a problem-based learning environment. Leary et al (2013) examined the tutor’s level of experience and its effect on students’ learning. They found an inverse relationship; student learning was greater when tutors had less experience ($P<0.02$). The authors hypothesised that the increased activity associated with a tutor preparing for a new course or teaching method may positively contribute to students’ learning.

Dolmans and Wolfhagen (2005) studied the interactions between tutor performance, productivity of the tutorial group, and the learning effectiveness of the problem-based learning course. The results showed that group productivity scores were significantly higher when the tutor’s performance score was higher ($P<0.5$). They also found that the effectiveness of a problem-based learning course was greater for higher levels of tutor performance and group productivity (Dolmans and...
These findings emphasise that the complex interactions that occur between tutors and student groups can affect students’ learning in a problem-based learning environment.

Dolmans et al (2002) explored the effects of other factors on tutors’ behaviours. These factors included the quality of the problem-based learning care scenario, structure of the curriculum, how the tutorial group functioned, and students’ previous level of knowledge. They concluded that tutors should adapt their approach and the amount of content knowledge used in tutorials, depending on the level of previous knowledge of the students and their familiarity with the problem-based learning process (Dolmans et al 2002). Tutors should be flexible and adaptable in tutorial groups to best fit their approach with the specific context and needs of their group of students.

Further cognitive and social characteristics of effective problem-based learning tutors include: being involved with students in an authentic or genuine manner and being able to adapt and explain concepts in a way that students can understand (Schmidt and Moust 1995). Overall, the literature supports the premise that effective teaching in problem-based learning is a multidimensional process that requires the teacher to have a variety of skills. Moreover, research has shown that what tutors perceive to be effective often differs from students’ perceptions of effective teachers (Kassab et al 2006). This indicates a requirement for greater clarity and further research on the role of the problem-based learning tutor in enhancing students’ learning.

While much can be learned about effective problem-based learning from the literature, knowledge is incomplete in relation to understanding the perspectives of nursing students about what makes an effective problem-based learning tutor and their effect on students’ learning and experience. Many of the studies published were conducted with medical students, with limited evidence available relating to the experience of nursing students. The differing needs of first-year learners in problem-based learning courses and students as they progress through their years of study, has not been explored. Many studies measure students’ learning outcomes as achievement on tests and evaluation measures, without considering students’ perspectives. Further qualitative research is required on the effect of positive and negative problem-based learning tutors on other student outcomes, such as students’ experience, satisfaction, learning and perceived success.

This study aims to help address these knowledge deficits, to contribute to establishing the evidence base for effective problem-based learning tutors, to inform future teaching in problem-based learning and professional development initiatives, and to enhance students’ learning, experience and success.

**Aim**

This study aims to explore baccalaureate nursing students’ perceptions of what makes an effective tutor in problem-based learning courses, and the influence of effective teaching on students’ learning and experience. The following research questions were explored:

- What makes an effective tutor in problem-based learning?
- What makes an effective tutor in problem-based learning in each of the four years of the BScN programme?
- What is the effect of having an effective problem-based learning tutor on students’ learning, experience and success?

**Method**

A qualitative descriptive design informed by Sandelowski (2000, 2010) was used to gather students’ perceptions of effective teachers in problem-based learning courses. A qualitative design was chosen because it provides a holistic approach to complex issues and gives voice to participants’ experiences (Creswell 2012). An online survey and focus groups were used to gather participants’ perceptions. Data were collected from September 2013 to May 2014. The online survey enabled input from a large number of students (n=511)
In all levels of the BScN programme. Focus groups offer rich data generated from discussions (Lambert and Loiselle 2008), using authentic conversations (Kavern and Webb 2001) and a platform for participants’ personal ideas and concerns to emerge from discussions that otherwise might have been overlooked (Wilkinson et al 2007).

The survey asked participants to respond to the following open-ended questions:

- What are the top three things that make an effective tutor in problem-based learning (for example, qualities, skills, abilities, strategies, other)?
- What makes an effective tutor in problem-based learning for each year that you have experienced (for example, qualities, skills, abilities, strategies, other)?
- What else can you add about what makes effective problem-based learning tutors in the BScN programme?

Participants and recruitment

Participants in the study were BScN students in all four years of one large nursing programme in south-western Ontario, Canada. All students registered at two sites of the BScN programme with a minimum of six months in the programme were emailed a link to the online survey. Formal and informal social media were also used to recruit students. Out of a total of 1,215 students, 511 completed the survey, giving a response rate of 42% (Matthew-Maich et al 2015). Students who completed the online survey were entered into a draw to win one of four $50 gift cards.

At the end of the online survey, students were invited to participate in a focus group. Seven focus groups were conducted with 19 participants in total. Participants were provided with food and refreshments during the focus group and received a $5 gift card for participating. Focus groups were conducted by trained students to avoid a power imbalance between faculty staff and students. A total of 25 students had roles as co-researchers, which were active and central roles throughout the research process.

Data analysis

Survey data and focus group transcriptions were analysed using descriptive content analysis (Sandelowski 1995). The four intellectual processes: comprehending, synthesising, theorising and contextualising, suggested by Morse and Field (1995) were integrated with this approach. Concurrent data collection and analysis was undertaken. Eight research team members and nine research students participated in the data analysis. All data were reviewed for main storylines, clustered into themes, and compared between levels. Consensus on themes was reached among all team members through discussion. Member checking was carried out to verify emerging themes and increase rigour (Krefting 1991), and credibility was enhanced through triangulation of data sources and types (Krefting 1991).

Ethics

Ethical approval for the study was obtained from the university’s institutional review board. Informed consent was obtained from participants at the beginning of the online survey and in writing before each focus group. Participants were informed that participation in the study was voluntary and that they could withdraw at any time or choose not to answer any of the questions. Identifying information was removed from all documents to ensure anonymity and confidentiality.

Findings

A total of 91% (n=465) of the participants were female and 9% (n=46) were male. Participant ages ranged from 17 years to over 50 years, with the majority aged between 20 and 24 years (55%, n=284). English was the first language for most participants (82%, n=422) and the second language for the others (17%, n=89). Participants were from both sites of the BScN programme (57%, n=291 and 43%, n=220), which was representative of the entire cohort of students. The percentage of students in each level of the BScN programme was as follows: level 1: 16% (n=84), level 2: 20% (n=104), level 3: 33%
(n=169) and level 4: 30% (n=154). A total of 60% (n=307) of participants had no previous post-secondary education, while 40% (n=204) had previous university or college education.

The student participants articulated clearly and consistently what they perceived to be the qualities, attributes and skills of effective problem-based learning tutors in their BScN programme. Thematic analysis of the data identified five attributes, the ‘5 Ps, of effective problem-based learning tutors, which are shown in Box 2.

Effective problem-based learning tutors changed their approaches throughout the BScN programme, moving from a supportive and guiding role in the first two years to one in which students were challenged and worked autonomously in years three and four. The impact of effective and ineffective problem-based learning tutors on students’ learning and experience was also emphasised in this study.

Prepared (knowledgeable and skilled)
To be an effective problem-based learning tutor, it was considered essential to have the necessary knowledge and skills to facilitate problem-based learning. Being prepared was multifaceted and included: subject and content expertise, knowledge of the problem-based learning process and philosophy, skilful facilitation, nursing professional practice knowledge and integration to problem-based learning, and a complete understanding of the four years of the BScN curriculum. Knowledge of the content and subject matter was the highest-ranked effective tutor ability in the survey responses.

Student participants stated that effective problem-based learning tutors also need to have knowledge:

• ‘Knowledge about the process. I feel like that’s a big skill’ (BScN student, online survey).
• ‘Knowing exactly what problem-based learning is so they can describe it to people’ (BScN student, online survey).

Skilful facilitation was essential:
• ‘When your problem-based learning teacher integrates everything like your clinical too… you get a better understanding of different classes and the grasp of everything’ (BScN student, online survey).
• ‘I know that’s a lot to expect from the tutors to know everything that’s going on. But tutors that make an attempt to integrate it… you can definitely see what a tutor is saying like I am teaching problem-based learning, this is what I’m doing, versus the ones who are able to like branch out to other courses and try to integrate them back to the problem-based learning discussion’ (Level 4 BScN student, focus group 3).
• ‘Letting you make the connections, they probe and ask questions but make you think’ (Level 3 BScN student, focus group 5).
• ‘She made it so that everybody shared their information… it was conversation and flow, which I think is very effective… when they can encourage it from show and tell, to more like a discussion of where you’re tying [connecting] what you researched with having a conversation, and sure we might go off a little bit, but then they always know how to pull it back’ (Level 2 BScN student, focus group 6).
• ‘Good knowledge and a good facilitation of incorporating the students into the learning experience, and kind of bringing out different points that as a student you wouldn’t see, but as a graduate nurse you would see’ (Level 4 BScN student, focus group 7, in relation to nurse educators and problem-based learning tutors).

Person-centred
A person or student-centred approach to interacting with the problem-based learning group members was vital to effective problem-based learning tutoring:
• ‘Like get to know you and your circumstances beyond just that of the

KEY POINT
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problem-based learning or clinical setting’ (BScN student, online survey).

‘So like tailoring the class to the people that were there, not just using a cookie-cutter [standard] method’ (BScN student, online survey).

A person-centered approach included being approachable and caring:

‘I just found that she was always inviting people to approach her...’ (Level 2 BScN student, focus group 1).

‘A good tutor, whether problem-based learning or clinical, is someone who takes the time outside of the classroom to give you advice etc... someone who is truly invested in your success’ (BScN student, online survey).

‘I agree with encouragement too. Like if they give you encouragement it makes you want to be better. But like when you don’t have that encouragement there’s no motivation’ (Level 3 BScN student, focus group 3).

‘I think for like my best problem-based learning tutor she was very... yeah, just like able to adapt to the environment and feed off our energy. And like... like we were talking about before, how being able to observe like the cues from the group and see what’s going on there, I think that’s... that’s really helpful... So I think like that was effective even though I didn’t think so at the time, but now I can see how that impacts my learning’ (Level 2 BScN student, focus group 5).

BScN students relied on the tutors to be passionate and positive about nursing, the programme curriculum, problem-based learning, the subject content, the problem-based learning process, its application to nursing and the tutorial session they engaged in together:

‘Definitely enthusiasm, I can feel it. This term my tutor is really passionate about nursing and the whole group dynamic is different’ (Level 2 BScN student, focus group 1).

The Tutors’ passion and links to professional nursing practice were critical for nursing students to enable them to feel motivated and inspired to prepare, learn, and expand the depth and breadth of their learning, and to start to meaningfully apply their knowledge:

‘For problem-based learning, I think when you have like a tutor who’s excited, then the environment of a class just changes and you get so much more out of it, and so I think that makes a huge difference from problem-based learning because everybody’s like sharing experiences and how they relate to the research that we found and how that’s going to relate to our bigger practice. And the tutor just has such a big part of that, based on like how like involved and like invested they are’ (Level 3 BScN student, focus group 5).

‘We’re not really in a hospital setting right now, we’re just learning stuff and just to show why we’re actually learning what we’re learning and how it’s going to affect our experience later... when we’re working, [it] was really helpful just to give us the passion by just talking about the experience. I think that really motivates us to kind of realise why we’re actually going to be a nurse’ (Level 1 BScN student, focus group 3).

‘Definitely those that are passionate about nursing. You can definitely tell when a tutor’s burnt out and is just doing it for the money, versus those that are passionate about nursing, are super-excited about inspiring new nurses to learn and become engaged in the profession’ (Level 4 BScN student, focus group 4).

Professional

Problem-based learning tutors considered to be effective in their roles modelled professional behaviours such as professional communication, punctuality, preparation, organisation, respect, fairness, and accountability for ensuring problem-based learning course goals were met:

‘I felt for myself that it’s important that they are task-orientated and like we cover everything that we need to cover’ (Level 3 BScN student, focus group 5).

The tutors assist students to focus on the course learning goals in problem-based learning tutorials and support the process, consistently applying:
‘Good standards of the classroom so that they don’t let the problem-based learning process kind of slide’ (BScN student, online survey).

Participants were clear that they noticed when tutors were not modelling professional behaviours and the negative effect of this:

‘Sometimes she’d be late for class and like it was just like she wasn’t putting any effort into it. But it shuts you off from learning completely’ (Level 3 BScN student, focus group 5).

Participants were also mindful of when tutors were not engaged and able to meet their commitments to the problem-based learning group:

‘Some problem-based learning tutors should not be problem-based learning tutors because they’re doing way too much... when I got my papers back it was like... one checkmark on each page, and then a letter grade at the end, and like some spare comments, I just felt like she was doing too much, [so] that she couldn’t properly concentrate on our class’ (Level 4 BScN student, focus group 3).

Prepare students for success in the BScN programme

Effective problem-based learning tutors offer clear expectations and guidance related to the course, and help prepare students to be successful in their next year of studies:

‘It’s really good for when they give us context of where we’re headed’ (BScN student, online survey).

‘My problem-based learning tutor this year, she really kind of helped us develop and told us what was in Year 3, so that we would be more aware of [this]. So for example, she wants us to give feedback to each other, because apparently in level 3 you get graded for that. So being able to just incorporate that into level 2, and help us, direct us so that we’re prepared when we get there’ (Level 2 BScN student, focus group 1).

In addition, effective problem-based learning tutors helped students to understand the connections between current learning and future professional nursing practice:

‘I was able to learn more because they made me believe that these abstract principles... we’re actually going to apply one day and were relevant in clinical practice. A good problem-based learning or clinical tutor is able to effectively communicate why they’re important. And that’s what I really like, communication between student and tutor as far as why I’m doing these actions and why I’m learning certain things is important’ (Level 2 BScN student, focus group 1).

‘Making it relevant by including real-life application... to make problem-based learning more real!’ (Level 3 BScN student, focus group 2).

‘Another thing in problem-based learning that kind of makes an effective tutor is always bringing it back to practice... Because problem-based learning can be so hypothetical and so theoretical, so encouraging and like prompting the group to just bring it back – so would you handle this if you were the nurse on the floor and this happened? And providing examples of that. I think that’s important’ (Level 3 BScN student, focus group 5).

Preparin students to be successful in the next steps of the programme involved establishing high expectations. Problem-based learning tutors also consistently provide students with ongoing detailed feedback regarding what they are doing well, what they can improve and how they can achieve this. Effective problem-based learning tutors invite and use feedback from students to foster their own professional growth:

‘And she was really welcome to receiving feedback’ (Level 1 BScN student, focus group 2).

‘I like how she kind of tweaked the problem-based learning process because she knew herself and because she sought feedback... she sought feedback from the group’ (Level 4 BScN student, focus group 3).

‘We had a problem first semester that we resolved with our tutor... we didn’t feel she was providing enough support. So it’s really important I find that the tutors emphasise that they’re open to feedback...’ (Level 4 BScN student, focus group 4).

KEY POINT

Problem-based learning tutors considered to be effective in their roles modelled professional behaviours such as professional communication, punctuality, preparation, organisation, respect, fairness, and accountability for ensuring problem-based learning course goals were met.
The study findings suggest that problem-based learning tutors have an important and complex role in contributing to and positively affecting students’ learning, experience and success. Students described several important characteristics of effective problem-based learning tutors that are essential to their learning and success, both academically and in their future professional careers. The findings suggest that effective problem-based learning tutors are knowledgeable of the course, processes and content, and skilled in facilitation during class instead of us having to wait to the end of the semester to fill out those forms… They should be asking students throughout the semester. So, our tutor is doing that now but it might’ve been even more helpful if she had done it from day one… That’s been my experience’ (Level 1 BScN student, focus group 2).

The problem-based learning tutors perceived to be effective facilitated the active and successful use of reflection to foster ongoing learning, improvement and growth:

‘We were having some problems and then she just… she would cut us off and she would be like ok we have a problem so we need to discuss it and solve it together because that way we would be able to move on’ (Level 4 BScN student, focus group 3).

Changing approaches over the years of the BScN programme
Participants shared the tailored approaches used by effective problem-based learning tutors as they progressed through levels one to four of the curriculum. These tutors balanced support and guidance with challenge and autonomy, offering support and guidance in the lower levels (levels 1 and 2), then challenge and autonomy in the upper levels (levels 3 and 4) of the BScN programme:

‘Level 1 needs a lot of facilitation by the tutor and then taper down. The tutor’s role in upper levels is [providing] clear expectations, keeping on track… if you’re going way off on a tangent they can bring you back so you’re not wasting your time’ (Level 3 BScN student, focus group 5).

‘I think first year problem-based learning tutors have to be really good… it’s getting used to the whole [concept] and you’re like what is problem-based learning? It took me at least until like half way through second year to the beginning of third year to actually really figure out what problem-based learning was. So I think that in first year it’s really important to have more nurturing tutors’ (Level 4 BScN student, focus group 3).

‘In level 1, I remember my starting out, they need to have like a clear understanding of the problem-based learning process and be able to clearly portray the process to the students and then guide them through it. Like my very first problem-based learning, my tutor she was a good tutor but she didn’t really explain the process so we didn’t know what to do. We wasted a lot of time’ (Level 3 BScN student, focus group 2).

‘In first year, I think you need tutors that can feed the students a little more, and then in fourth year it’s like they kind of put it out there and then students take for themselves, so it’s like they encourage that. Like a waitress versus a buffet style I guess. Students have different needs and then kind of in the middle what you’re looking for is making sure that students are actually learning the things that they need’ (Level 4 BScN student, focus group 7).

‘Providing support and also challenging you, incorporating both – trying to challenge the students to always… dig deeper’ (Level 3 BScN student, focus group 6).

‘A tutor that prompts more discussions because as you move on tutors need to be less and less involved in making people discuss things… in first year they should be really involved in the group because people sit back when they don’t know what they’re doing’ (Level 4 BScN student, focus group 7).

‘My tutor was amazing at facilitating growth and like the strategy of pushing people’ (Level 4 BScN student, focus group 3).

Effect of problem-based learning tutors
Participants emphasised that effective tutors had significant effects on students’ learning, motivation and experiences:

‘Tutors can have a major impact on students in the programme, because they can make the experience enjoyable and challenging, or they can make it emotionally draining’ (BScN student, online survey).

‘She made me look forward to problem-based learning every week… it was my first class of the week and I find that your very first class of the week, if you have a bad class or if you have a good class, totally determines how the rest of your week goes. Like last semester we had a really hard
time with our tutor… it was the first day of class of the week and I struggled a lot more last semester, because of the impact that class had on my week’ (Level 3 BScN student, focus group 2).

With highly effective tutors, participants explained that their learning starts to come together:

‘I felt like I was really starting to incorporate all the different things I had been learning over the years, and I was really starting to understand what I’m providing for my clients [and to] make connections [about] why what we are learning is important to know as nurses’ (Level 4 BScN student, focus group 4).

Participants accredited effective tutors for their success:

‘The tutor just has such a big part of that success based on how involved and invested they are’ (Level 4 BScN student, focus group 4).

‘I feel like I have a better grasp of the problem-based learning process because of the tutor’ (Level 2 BScN student, focus group 1).

‘How organised they are coming into each problem-based learning session, has like impacted, you know, my ability to learn, and my tutors have been incredibly organised. And just like my learning has been phenomenal in problem-based learning’ (Level 3 BScN student, focus group 2).

By contrast, with ineffective tutors:

‘I’ve had an experience with a poor tutor in problem-based learning, and you really feel powerless. You don’t feel like you can take ownership of your own learning. You feel like, very defeated’ (Level 4 BScN student, focus group 7).

The learning and experience of students were severely compromised:

‘I don’t remember much from that class – you just shut down. You don’t want to learn. You don’t want to be there. And it’s really… it’s not a very good learning experience at all’ (Level 4 BScN student, focus group 3).

‘Being a tutor goes above and beyond just being a nurse I think, and if you don’t really feel passionate about being there, then you’re wasting all of those students’ time. Because, like you said, I don’t even want to show up if the tutor’s ineffective’ (Level 3 BScN student, focus group 3).

**Strengths and limitations**

The study is based on a large sample size and was conducted over one year, which enhances its trustworthiness and credibility. Triangulation of data types (online survey and focus groups) and researchers (eight faculty staff researchers analysed the data) were engaged as research partners, which enhanced the study. Student facilitators were trained to facilitate the focus groups to ensure there were no power imbalances between faculty staff and student participants. This enabled candid, comfortable dialogue. Students developed the wording for the online survey questions and invitations, which engaged students and contributed to the 42% response rate.

The main limitation of the study was that it was conducted in two sites of one Canadian BScN programme, thus transferability might be limited. The curriculum context has been summarised clearly to enable readers to determine the transferability to individual contexts.

**Discussion**

The study findings suggest that problem-based learning tutors have an important and complex role in contributing to and positively affecting students’ learning, experience and success. Students described several important characteristics of effective problem-based learning tutors that are essential to their learning and success, both academically and in their future professional careers. The findings suggest that effective problem-based learning tutors are knowledgeable of the course, processes and content, and skilled in facilitation. This finding is consistent with studies that found tutors who had a strong knowledge base and content expertise were considered effective (Schmidt and Moust 1995, Dolmans et al 2002). Other studies found...
that tutors who were skilled facilitators were perceived to be effective teachers, and this led to students’ positive experiences and learning (Kassab et al 2006, Lekalakala-Mokgele 2010, Spronken-Smith et al 2011). The findings of this study contribute to the ongoing debate about whether content expertise or facilitation expertise is the more important quality in tutors. The students in this study were clear that effective problem-based learning tutors demonstrate both of these qualities.

Students in the study described a person-centred approach as an important characteristic of an effective tutor. This suggests that for tutors to be effective they should tailor the course material to meet the learning needs of individual students or groups. This finding is consistent with Schmidt and Moust (1995) and Dolmans et al (2002), who found that effective problem-based learning tutors tailored their approaches to students and adapted their methods to the learning needs of students.

Spronken-Smith et al (2011) conducted a meta-analysis of 10 studies in undergraduate education to explore teacher characteristics that promoted inquiry-based learning. Important characteristics included being passionate about student learning, approachable, reflective and continually seeking improvement in their teaching. The study findings presented in this article (referred to as the authors’ study in this section for comparative purposes and ease of reading) support and expand on Spronken-Smith et al’s (2011) study by further defining effective tutors’ passions, which in turn motivate and inspire students to learn. The participants in the authors’ study clarified that effective tutors are passionate and positive about the profession, curriculum and problem-based learning process. Passion and positivity were important factors in students feeling engaged and motivated to learn. This is consistent with Spronken-Smith et al’s (2011) and Yew and Yong’s (2014) studies, in which teachers who motivated students and fostered positive learning environments were highly valued by students and contributed to effective learning.

Students in the authors’ study identified professionalism and accountability as important characteristics of effective tutors. Yew and Yong (2014) recognised that these characteristics are important to students’ success. The authors’ data also reveal the negative effects of unprofessional behaviours on students’ learning and experience. It was evident from the student participants’ responses that they observe tutor behaviours closely and their observations affect their experience and learning significantly.

The findings of the authors’ study described the importance of tutors preparing students for success in their future courses and making explicit links between the learning experience and their future professional careers. Receiving detailed ongoing feedback was perceived to be an important requirement for students to develop professionally, and thus a characteristic of effective teachers. Participants advocated that effective problem-based learning tutors ask for and apply students’ feedback related to their teaching to enhance their teaching practice and students’ learning.

The authors’ study provided insights into effective tutor practices and how they tailor approaches as students progress through the nursing programme to meet students’ changing needs. Students articulated that they required additional support and guidance in the beginning of the BScN programme (years 1 and 2) and required challenge and autonomy in the later years (years 3 and 4).

The impact of effective and ineffective problem-based learning tutors was also clarified. Students described that effective problem-based learning tutors had a positive effect on their learning, experience and success. Ineffective problem-based learning tutors had a negative effect on students’ learning, experience and success in the nursing programme. Students offered powerful and emotional terms to describe the effect of ineffective tutors in problem-based learning, including: ‘make you feel powerless’, ‘if you don’t really feel passionate about being there, then you’re wasting all of those students’
time’, ‘I don’t even want to show up if the tutor’s ineffective’, and were disappointed by the missed learning opportunities. These findings are new to the literature, yet are consistent with Dolmans and Wolhagen (2005) and Leary et al’s (2013) findings, which suggest that effective tutor performance was linked to positive student performance. Further to this, the authors’ findings reveal the first-hand student experience and the significant impact of working with effective and ineffective problem-based learning tutors.

Conclusion

The role of the problem-based learning tutor is complex, multifaceted and essential to students’ success, learning and experience. The problem-based learning tutor role requires: expertise in content, facilitation, the problem-based learning process and professional practice; a student-centered approach to learning; professional and accountable behaviour; passion and positivity about problem-based learning, the course content, nursing, and the curriculum; preparing students for success; and the ability to adapt approaches as students develop through the four years of the BScN programme. Achieving this level of complexity requires active support. It is crucial that programmes invest strategically in developing their problem-based learning faculty staff and support them to promote optimal student outcomes.

References

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