

Learning partnership—the experience of peer tutoring among nursing students: A qualitative study

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Abstract

Background: Peer tutoring involves students helping each other to learn. It places teaching and learning commitments and responsibilities on students. Considerable evidence supports the positive effects of peer tutoring, including cognitive gains, improved communication, self-confidence, and social support among students. Peer tutors are also said to better understand the learning problems of fellow peer learners than teachers do.

Objective: This study intended to facilitate the development of ‘cooperative learning’ among nursing students through a peer-tutoring scheme.

Study method: Undergraduate nursing students were invited to join a peer-tutoring scheme. Fourteen students studying year 3 were recruited to serve as peer tutors and 16 students from year 2 of the same program participated as tutees. Peer tutors attended a training workshop and received a guideline for peer-tutoring activities. They were to provide a total of ‘10 weekly tutoring sessions throughout the semester on a one-to-one basis for their tutees. Focus groups and individual interviews were conducted in the middle and at the end of the semester to evaluate the students’ experiences in the tutoring process.

Results: Content analysis of the interview scripts identified that students had both positive and negative experiences from the peer tutoring, but that positive experiences predominated. Positive aspects included enhancement of learning skills/intellectual gains and personal growth. Negative experiences stemmed mainly from frustrations in dealing with mismatched learning styles between tutors and tutees, and the required time commitment.

Conclusions: Both tutors and tutees benefited to some extent from this peer-tutoring process. Further studies in an education program for students in all years should be implemented to examine peer-tutoring effects. Implementation of peer tutoring should address the frustrations and difficulties encountered by the students to facilitate better outcomes.

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Keywords: Peer tutoring; Cooperative learning; Nursing education

What is already known about the topic?

- Nursing students’ professional skills are better developed through an active learning process in which

students take a deep learning approach and develop critical thinking and effective communication.

- Peer tutoring, as a system of partnership in the learning process, places the commitment and responsibility for the teaching and learning experience on the students.
- Peer tutoring facilitates cooperative learning and provides opportunities for students to discover their

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inadequacies and to correct misunderstandings, and it encourages openness to others' ideas.

What this paper adds

- Students who participated in the peer-tutoring scheme had enhancement of learning skills and intellectual gains, which improved reflective and critical thinking ability.
- Peer-tutoring scheme provided students the opportunity to develop 'transferable' personal skills, such as communication, interpersonal, and time management skills. Students also identified personal growth, such as increased confidence, and becoming more active and responsible for their own learning.
- Peer tutoring enabled the students to achieve a deeper understanding of the subject matter by re-organizing existing knowledge, clarifying and exemplifying the knowledge, and applying the knowledge in practice.
- The peer-tutoring scheme was successful in encouraging students to accept their responsibility for their learning.

1. Introduction

Students in nursing are expected to be able to analyze, synthesize, and communicate information in order to solve clinical problems in their professional careers. These skills are better developed through an active learning process in which students take a deep learning approach, and develop critical thinking and effective communication (Loke et al., 1997).

2. Peer tutoring

Peer tutoring, as a system of partnership in the learning process, involves students helping each other to learn and learning themselves by teaching. It places the commitment and responsibility on the students in the teaching and learning experience (Topping, 1996). According to Moust and Schmidt (1994), peer tutors better understand the learning problems of their fellow students than teachers do, since they have recent similar learning experiences. While peer tutoring could make learning more efficient for the tutees, it also has benefits for the tutors (Goodlad and Hirst, 1989; Jones, 1995; Topping, 1996).

Peer tutoring has been used in a variety of contexts. Some peer-tutoring schemes were involved in teaching at elementary and secondary levels (Greenwood et al., 1988, Jenkins and Jenkins, 1985; Stephenson and Warwick, 2001), or teaching children with learning disabilities, and mental or physical disabilities (Barfield

et al., 1998; Fenrick and Peterson, 1984; Osguthorpe and Scruggs, 1986). Peer tutoring is increasing popularity in tertiary education (Anderson and Boud, 1996; Fantuzzo et al., 1989a, b; Saunders, 1992), such as in education (Rittschof and Griffin, 2001), physics (Booth and James, 2001), mathematics (Evans et al., 2001; Xu et al., 2001), psychology (Potter et al., 1998), medicine (Goodfellow, 2001; Johansen et al., 1992; Sobral, 2002; Solomon and Crowe, 2001), and nursing (Clarke and Feltham, 1990).

Clarke and Feltham (1990) stated that the process of peer tutoring can enhance learning skills that contribute to higher academic achievement. Griffin and Griffin (1997, 1998) argued that peer tutoring had no measurable impact on students' achievement, but students found it helpful in studying course materials. Peer tutoring also facilitates cooperative learning. Students who engage in interaction with their peers are expected to externalize their thoughts, and to make explicit their queries related to the subject. The situation provides opportunities for students to discover their inadequacies and to correct misunderstandings, and it encourages openness to others' ideas (Johnston, 1995). In a review of studies on peer tutoring, Hill and Topping (1995) found considerable evidence of positive effects for the tutors, including cognitive gains, improved communication, and self-confidence. Fantuzzo et al. (1992, 1989b) identified a positive effect on increasing social support among the students.

A peer-tutoring scheme project was launched with the aim to enhance the development of learning skills and interpersonal skills among undergraduate nursing students. This study was conducted to examine the experiences of the nursing students who participated in the peer-tutoring scheme incorporated in the Bachelor of Science Degree in Nursing Program in Hong Kong.

3. Study method

This study was conducted with a cohort of nursing students who were studying the second and third years of the undergraduate program. The second year students were taking a subject "Maternal and Child Care", which included weekly 2-h lectures and 1-h laboratory sessions for one 14-week semester. During the time, the students also spent 2-days per week in a clinical placement in maternity and infant care units. Peer tutoring was used as an adjunct to the regular lectures, laboratory, and clinical placement.

The students were informed that the peer tutoring project was integrated into the teaching of the subject. Students were invited to join the scheme on a voluntary basis, and were asked to sign a written consent. They were assured that their decision would not affect in any way their assessment results for the subject. They were also reassured that data collected would be used for

improving the subject design and the peer-tutoring scheme and that individual students would not be identified in the report of the study.

Sixteen out of 40 students who were studying in the second year (32%) joined the scheme as tutees. They were aged 20–22 years, and 14 of them were female. Students in the third year of study in the same program that had satisfied the requirements of the “Maternal and Child Care” subject, and had relevant clinical competence in their previous year of study were invited as tutors. Fourteen out of 50 (28% of the class) students took part as tutors, and they were aged 21–23 years and 12 were female.

Before the peer-tutorial activities commenced, a 2-h training workshop was arranged to introduce the concept of peer tutoring, the ground rules of the peer-tutoring scheme, the roles and responsibilities of the tutors, and some basic teaching and learning principles. Student peer tutors were also provided with a guidebook developed by the project team. It outlined the information and skills they would need as peer tutors (Loke et al., 2002). A set of course materials was also provided. It included the syllabus, learning objectives, and covered content.

The tutors and tutees were required to have 1-h tutoring sessions on a weekly basis throughout the semester. The project team arranged small tutorial rooms in the university for these tutoring sessions, and served as resource persons, providing ongoing support whenever it was deemed necessary. Tutors and tutees were expected to identify learning issues and objectives, and to keep a record by noting the concerns and the issues discussed in each session. The progress of the tutoring activities were monitored in group meetings that were separately held between the project team, and the tutors and tutees during the 4th, 7th, and the 10th weeks of the 14-week semester. The meetings were to provide a forum for the tutors or tutees to share their experience and any difficulties encountered.

Data were collected from group and individual interviews. Upon completion of the project, tutors and tutees that had raised pertinent issues in the group interviews were invited for further individual interviews. During the interviews, questions were asked regarding the peer-tutoring experience and whether they had gained from the experience; difficulties encountered; and their evaluation of the scheme. All interviews were recorded by tape, and transcribed. Typical quotations from interviews were extracted to illustrate the major themes and categories that emerged from the data.

4. Results

Qualitative content analysis of the interviews revealed both positive and negative comments on the peer-tutoring process. Students reported that positive aspects

included enhancement of deep learning, cooperative learning, and personal achievements/gain, and they reported the difficulties they encountered in peer-tutoring activities.

4.1. Enhancement of deep learning

Both tutors and tutees realized that the experience had expanded their ways of learning and thinking. Students found that they had to be more systematic in their learning, to reflect on their experiences, and they had to integrate theory with practice. The following comments by tutors and tutees demonstrated the enhancement of deep learning, which involved critical thinking and reflective learning:

When the tutee/tutor asked questions that I hadn't thought of before, I learned the way the tutee/tutor thought and asked myself why I hadn't asked these questions. I seldom asked 'why' in the past, she [tutee] stimulated me to think from another perspective. (tutors 2, 3, 5) (tutee 9)

When I had my obstetric clinical placement, I was not able to apply the theory to practice. Now, I can recall some of the cases that I had come across, and integrate them with textbook theories to explain to my tutee. (tutors 1, 3, 5, 11, 14)

We shared our clinical experiences, then I asked myself if I would have the same judgment, and how I would have handled the situation. We do reflect on our clinical encounters. (tutee 6, 11, 12)

4.1.1. Problem solving and critical thinking

Many tutors and tutees appreciated the opportunity to ask or to answer questions that stimulated their thinking in the tutoring process. It was obvious from the interviews that the tutoring process enhanced the development of problem-solving and critical-thinking skills. The following quotations are some examples:

My tutee/tutor challenged me about why I do things in a particular way. I used to follow strictly what the teacher or the literature said. But now, I have started to question if it should be done in that way. Since I have been asked several more times, I've started to use a critical mind to evaluate what I have done, and to think of alternative methods. (tutors 1, 3, 7, 14) (tutees 4, 14, 15)

She (tutee) would only recall if she had studied it before and try to locate the information in her notes. I taught her to start thinking from the basics. For example, to start with the functions of an organ, if that fails, then what would be affected? That is to think step-by-step, logically. It does not require memorization. (tutors 1, 10)

My tutor taught me how to think from the basic and to go logically step-by-step, and not to memorize the information in our textbook or lecture notes. This helped me to relearn my study approach. (tutee 4, 9)

4.1.2. *Systematic approach to learning*

Both tutors and tutees reported intellectual gains from being more systematic in their learning.

I've become more systematic in learning since I've had to organize the materials beforehand, and to express myself clearly to help her [tutee] understand. (tutors 2, 7, 9)

My thinking has become more systematic and organized. Studying was unstructured for me in the past, but now that I have to present to another person clearly and have him/her understand, I have changed. This has trained me to be more organized and systematic. (tutors 1, 5, 9)

4.2. *Cooperative learning*

Apart from deep learning skills, participation in the peer-tutoring scheme enhanced students' cooperative learning. Both tutors and tutees acknowledged that it was a mutual process that went both ways.

I didn't know the answers to some questions, so we went back to read and then discuss in our next meeting. She even taught me things that I didn't know; it was good that we could learn from each other. (tutors 2, 5) (tutees 1, 5)

Sometimes I thought I understood, but when the tutee/tutor asked me more questions, I realized that I didn't. This helped me to realize my own inadequacies. We searched for information together from a variety of sources, and we both learned. (tutors 3, 6, 13, 14) (tutees 3, 8)

The following quotes from the interviews were evidence that even tutors experienced increased confidence in their own learning.

I used to rely on others when I prepared my assignments, now I'm more independent. Perhaps it's because I have to teach someone younger than me. I'm now doing more preparation and other things by myself and we learn together. (tutors 1, 9, 11)

I'm more confident in answering questions that I know, such as the subject "Maternal and Infant Care". I was rather hesitant when I couldn't answer her questions at first, but the tutee/tutor didn't mind and we both learned together. (tutors 1, 8) (tutee 3)

The peer tutoring sessions provided me with opportunities to ask questions. I became more ready to ask questions in my own class and more active in learning. (tutor 8) (tutee 8)

4.2.1. *Alternative approach to cooperative learning*

In order to cope with the tutees' questions, the tutors learned that textbook knowledge was not sufficient to answer all questions. They learned that they had to explore alternatives in searching for answers.

If I'm not certain about an answer, I'll tell my tutee/tutor honestly that I'm not sure, and I'll search for the answer in the textbook. I'll also reflect on my own clinical experience, and will check the practice protocols in several hospitals to share. It's like we both have more clinical exposure. (tutors 1, 5) (tutees 5, 11)

It is meaningless to repeat what we've been told in lectures, so I did literature searches on the Web and discussed my findings with the tutee/tutor. In the past, I'd only studied the lecture notes and hadn't searched for additional information, but now I'll search more myself. This has broadened my scope in searching for information. (tutors 1, 2, 6) (tutees 7, 16)

4.3. *Personal gains/growth*

Apart from learning skills and cooperative learning, they also claimed that participation in the peer-tutoring scheme enhanced their personal growth, which would be useful in their subsequent study and work lives.

4.3.1. *Communication skills*

This was one of the areas that participants most frequently commented on. Students reported that they learned to respect one another and to communicate better in the tutor–tutee relationship. Here are some of the students' comments.

I learned how to communicate with others, such as, what language to use, how to approach, and what kind of attitude I should have when I teach someone else. (tutors 5, 9)

I learned many communication skills. When I'd faced difficult patients in the past, I would escape from the situation. But in the peer-tutoring process, I had to face the difficulties and try to talk to the tutee. Now, when I meet patients who don't cooperate, I'll try my best to talk to them. I won't escape now... (tutors 3, 8, 9, 14)

I've learned to give clear explanations, and am now more articulate in expressing myself. (tutor 9)

I've become more tactful in handling what I used to call 'stupid' questions. I've learned how to ask questions to stimulate thinking, and how to give explanations or answer questions systematically and clearly. (tutors 2, 8)

Students also reported that they had learned how to be more open, more understanding, and more supportive in the didactic relationship.

It's important to accommodate one another's needs and it's important to understand the other's situation. This is because we can't have adequate preparation each time. Understanding is fundamental to developing a friendly collaborative relationship. (tutors 1, 5) (tutees 10, 15)

I learned that I should have more patience. This also works when I have to teach health lessons for our clients. I've also learned to be a good listener. I should listen when others want to express themselves. (tutors 1, 8, 9, 12)

4.3.2. *Time management*

Students, especially the tutors, claimed that they learned how to better organize their schedules in order to accommodate the tutoring sessions.

Although it was hard to fit the tutorial sessions into my schedule, I realized that it was worthwhile, for I realized that even if I hadn't had the tutoring sessions, I wouldn't have been doing anything (in those hours)...or maybe I'd be sleeping. (tutor 3) (tutee 5, 6, 13, 15)

Some tutors developed a stronger sense of responsibility and were more active in learning.

Now I'm a more serious learner. I realized that the more I put into learning, the greater the reward. When I study now, I try to read from a wider scope, and won't wait until examination. (tutors 2, 3) (tutees 6, 12)

I feel an obligation and responsibility to teach and/or learn. I also feel that the teachers are serious about our learning and that I am part of the team. (tutors 2, 3, 12) (tutee 8, 10, 12)

4.3.3. *Social gain*

Many tutors and tutees appreciated the chance to expand their circle of friends and valued the friendships that developed through the arrangement. They were able to share worries and concerns, other than just academic matters. The following are students' comments on their relationships:

It's not easy to get to know schoolmates from other classes. This provided me with an opportunity to get to know them. It's nice to have a 'little sister/big sister' in the program. (tutors 2, 9) (tutees 1, 2, 4)

We started off with lots of conflicts, but near the end, we were like friends. She even called me when she encountered personal as well as academic problems. (tutors 4, 9)

We shared our concerns about clinical placements and trusted each other enough not to tell anyone. This made me feel that it's a close relationship. We

even talked about our concerns about future job opportunities in nursing. (tutors 5, 10) (tutee 8)

4.4. *Difficulties encountered in the peer-tutoring process*

Despite students' enjoyment of the tutoring process and their perceptions of its usefulness, they also experienced frustrations and disappointments. Causes of these frustrations usually stemmed from passivity in learning, punctuality, commitment, inadequate knowledge, and mismatches.

4.4.1. *Passivity in learning*

It was frustrating to tutors when the tutees did not come prepared to the tutoring sessions, but expected the tutors to repeat explanations that had been given in lectures. Here is an example:

In several sessions, the tutee/tutor had not done her part in preparing for the session, and we had to go through the notes, and give explanations that were like those the teacher gave in class. This was frustrating for me... (tutors 1, 10) (tutee 1)

4.4.2. *Time commitment and punctuality*

Some students said that it was difficult to schedule a time that was convenient for both individuals as they had other obligations. Some tutors regarded the effort of preparing the tutoring sessions as demanding. Punctuality was also a concern for peer-tutoring participants.

Twice, she [tutee] was late; I had to wait for 45 minutes. I couldn't find her. It was difficult and upsetting. I wondered if there was something wrong with me. (tutors 3, 9) (tutee 12)

Approaching the end of the semester, we were busy with our own assignments, it was difficult to arrange a suitable time, and I found preparing for tutoring to be very demanding... (tutors 2, 10) (tutee 4, 11, 14)

4.4.3. *Inadequate knowledge*

Another area of concern was not having enough knowledge to teach. The following quotations highlight the issue.

...I don't think I have an in-depth understanding of the subject matter and of the clinical applications to give full explanations... (tutors 2, 4, 9)

We don't have the knowledge and can't give answers to all questions straight away...I have to wait until the following week before I can get the answer. (tutors 4, 8)

The tutor didn't have adequate knowledge to teach, and often couldn't answer my questions. It wasn't useful to just keep referring back to the notes. (tutees 8, 10)

4.4.4. Mismatched styles

There might be discrepancies between the personal and learning styles of tutors and that of tutees, and this might create hurdles in the tutoring process.

I do see that there are differences in our personalities and styles—and these weren't easy to resolve... (tutor 9)

5. Discussion

This study has provided an understanding of students' experiences with peer tutoring in the context of nursing education in Hong Kong. The study showed that students who participated in the peer-tutoring scheme benefited from the experience in various ways. First, the students identified enhancement of learning skills/intellectual gains that improved reflective and critical thinking abilities. Both parties sought answers to problems from various sources of information and shared clinical experience in cooperative learning. Secondly, peer tutoring provided the opportunity to develop 'transferable' personal skills, such as communication, interpersonal, and time management skills. Students also identified personal growth, such as increased confidence, and becoming more active and responsible for their own learning. Students also treasured the opportunity to come to know other students in the same program. Friendships, which allowed sharing of concerns and worries outside academic matters, provided an alternate source of support.

The interview data showed that students who participated in the peer tutoring had utilized reflective thinking and increased critical thinking. As suggested by Hill and Topping (1995), teaching in a tutorial setting as opposed to a didactic lecture setting demands that one really comes to grips with the knowledge in order to render it meaningful to the learner. Peer tutoring enabled the students to achieve a deeper understanding of the subject matter by re-organizing the existing knowledge, clarifying and exemplifying the knowledge, and applying the knowledge in practice (Topping, 1996). In other words, the process involved new associations and integration of the concepts such that students would be able to apply the knowledge and skills to new situations.

Students improved communication skills and clarifying skills, which facilitated effective tutorial discussion. Strategies in communication, such as asking less complicated questions at the beginning and then building up to more-complex questions, and how to be an approachable tutor and sensitive to needs of the tutees, were seen as useful. Interesting discussions during peer-tutoring sessions offered new perspectives, sponta-

neous debate, generated energy and enthusiasm, and led to optimal participation, thus enhancing learning through articulation.

It was also apparent from the findings that the peer-tutoring program could be used to cultivate a cooperative-learning environment in which the students support one another in their learning. The scheme provided an interactive-communication environment that developed supportive relationships between the tutors and tutees, which is not only career enhancing but also an important source of student support. The findings showed that other than knowledge exchange, a mutual sense of trust was established. Some students even confided their own experiences to each other or difficulties in dealing with schoolwork, and how they struggled with assignments and demands from the lecturers.

The peer-tutoring scheme was successful in encouraging students to accept their responsibility for their learning. This is consistent with the literature that peer tutoring provides students with opportunities to develop transferable skills, such as communication and interpersonal skills (Hill and Topping, 1995). It was apparent that tutors developed confidence to ask questions in classroom, particularly those that had been previously unwilling to speak up in class. They had gained the courage to ask questions and to voice their opinions.

Students regarded peer tutoring as demanding, yet worth-doing. It is important that lecturers monitor progress and meet regularly with students to provide support and to identify difficulties encountered. As suggested by Goodlad and Hirst (1989), logistics in peer tutoring should be kept simple to minimize the difficulties students encounter, such as finding venues, allowing for timetable flexibility, and structuring of tutorial sessions.

As for the difficulties encountered by students, some that related to personal characteristics would be difficult to address. However, it would be desirable if the tutees could enter into a contract and be encouraged to take more initiative and responsibility for their learning. This, hopefully, would reduce the passivity encountered by the tutors in this study. Tutors' inadequate knowledge was a concern that warrants careful consideration in the planning of subsequent peer-tutoring activities. Lecturers should make themselves available as resource persons for the tutors. Obviously though, students should not be discouraged from finding their own answers. A successful peer-tutoring program requires careful planning, organization, and tutoring training.

Owing to the lack of comparison groups in this study, it was difficult to determine the relationship between peer tutoring and gains in cognitive and personal development that were described by the participants in the scheme. The self-reported changes in the students' attitude and behaviors could also be explained by

Hawthorne effects. It is inappropriate to make causal inferences from the reported changes in the students' attitudes and behaviors during the peer-tutoring program. Generalization of the findings of this study to other settings and other populations is inappropriate due to the use of a self-selected sample and the reliance on the use of a self-reporting method of data collection. It is recommended that further research includes control groups or comparison groups, and addresses issues of achievement gain and objective outcome measures as well as subjective participant feedback.

6. Conclusion

The present findings are very much in line with previous research findings. Both tutors and tutees reported that they benefited from the experience. While this qualitative study provided many insights into the gains and benefits that result from peer tutoring, it also reminded us of pitfalls that need further consideration and deliberation. It is evident that the use of the peer-tutoring program enhanced students' learning skills, critical-thinking and problem-solving abilities, and communication skills, and that enabled them to gain a stronger motivation to learn and to gain a sense of responsibility. Considering the benefits, it is suggested that similar peer-tutoring programs be implemented in other courses within the university and that further, larger scale, studies that examine the effects of peer tutoring be pursued.

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