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Research article

Nursing students' experience of online peer tutoring based on the grow model: A qualitative study

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A R T I C L E   I N F O

Keywords:
- Online peer tutoring
- Nursing student
- Qualitative study
- COVID-19

A B S T R A C T

Background: With the drastic change in the nursing education environment due to the coronavirus pandemic, several attempts have been made in Korea to help nursing students better adapt to the new learning environment.

Objective: This study aimed to explore nursing students' experience of online peer tutoring based on the Goal–Reality–Options–Will (GROW) model.

Design: A qualitative study using content analysis.

Settings: This study was conducted in the department of nursing at two universities in South Korea.

Participants: The participants were 14 nursing students who participated as tutors and tutees in the online peer tutoring.

Methods: Three focus group interviews were conducted with the 14 students. Data were transcribed and analyzed using content analysis.

Results: Three categories and nine subcategories were extracted. Online peer tutoring allowed participants to learn using a new approach, promoted their efficiency of studying in multiple aspects, and encouraged them to persevere and advance in academics, thus proving its usefulness as an auxiliary strategy to enhance the efficiency of online learning.

Conclusions: Structured online peer tutoring can be a useful tool for enhancing the effectiveness of non-face-to-face education for nursing students. This study's results can serve as meaningful basic data for planning and composing learning activities optimized for the future online nursing education environment.

1. Introduction

Most undergraduate classes in the Korean universities' nursing departments are conducted in the form of lectures, where an instructor teaches a group of students devoid of any practical training. In this environment, it is nearly impossible for the former to provide a customized class by identifying each student's characteristics or knowledge level (Kim et al., 2012). Additionally, due to the nursing department's tight curriculum schedule, combining academic coursework and clinical training, the academic stress among Korean and foreign students is exceedingly high; this is directly related to their adaptation problems, such as academic failure or delayed promotion to the next grade level, and high dropout rates (Guerra-Martín et al., 2017).

Therefore, each Korean university's nursing department supports students' learning activities by offering various noncurricular courses, such as peer tutoring programs.

The peer tutoring program is an individualized, shared learning method that applies the principle of student cooperation, moving away from the lecture-centered cramming-style instruction (Kim et al., 2012). Specifically, this educational strategy encourages mutual assistance through several interactive learning activities among peers, thus contributing to enhancing academic achievement and student adjustment (Colver and Pry, 2016). Thus, such activities can be used as an effective way to promote nursing students' academic progression and completion (Guerra-Martín et al., 2017). Previous studies have verified the following effects of peer tutoring: academic achievement

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improvement by enhancing learning skills, intellectual advancement, establishment of supportive relationships, and personal growth (Li et al., 2018; Loke and Chow, 2007). The recent rampant coronavirus disease 2019 (COVID-19) pandemic forced the global education systems to shift toward an online mode (Dhawan, 2020). This change has resulted in difficulties hindering academic goal achievement, due to limitations such as students’ decreased attention toward and engagement in the class (Dhawan, 2020). Peer tutoring is effective in reducing nursing students’ course failure rate and improving their academic achievement. Thus, it can be considered as an auxiliary medium to mitigate the problems of online-based education (Kim et al., 2021). Therefore, there is a need to explore whether the proven positive effects of the offline peer tutoring are manifested in the online setting as well.

Regarding the implementation of peer tutoring, if students are entrusted to self-manage the program, there can be positive effects such as affinity development through interactions and sharing responsibilities of group activities (Kim et al., 2012); however, it may also create problems such as confusion arising from differences in learning expectations and styles among peers and difficulties in tutoring management due to disagreements encountered during preparation or participation (Abbot et al., 2018; Loke and Chow, 2007). Therefore, a structured framework is required to initiate active participation and provide concrete directions for tutoring management. Furthermore, given that the nursing departments’ curriculum integrates theory and practice, the framework for it should be flexibly applicable to various modes of learning.

The Goal–Reality–Options–Will (GROW) model developed by Whitmore (2010) provides an adaptable framework that encourages effective coaching for group learning. According to Whitmore (2010), detailed goals are set to achieve ultimate goals and solve problems in the “goal” step. Furthermore, the actions adopted to date and obstacles that limit progression are assessed in the “reality” step; in the “options” step, possibilities and alternatives are identified. Finally, in the “will” step, action plans are made while considering anticipated obstacles. This enables higher active participation of members by presenting concrete operational directions and objectives in the tutoring process and helps them solve problems by establishing plans to acquire new knowledge and attempting innovative learning methods (Gurbutt and Gurbutt, 2015; Kamarudin et al., 2020). Researchers have verified that various educational or mentoring interventions applying the GROW model yield positive effects regarding participants’ learning ability, problem-solving and self-efficacy (Baek and Jang, 2016; Gurbutt and Gurbutt, 2015). However, few studies have explored the feasibility of applying it to online educational programs that have drastically increased in recent years; moreover, assessing it is necessary.

Therefore, this study aimed to provide the basic data for planning various types of online peer tutoring programs by conducting focus group interviews with nursing students who participated in the GROW model-based online peer tutoring. The research question was “What is the nursing students’ experience who participated in an online peer tutoring program using the GROW model?” We conducted an in-depth exploration of these experiences.

2. Methods

2.1. Study design

This qualitative study used focus group interviews that were conducted with students who participated in online tutoring for one semester; data were analyzed using a content analysis process as proposed by Elo and Kyngäs (2008).

2.2. Participants

This study recruited undergraduate students of two Korean universities’ nursing departments; online bulletin boards and social network services (SNS) were used to post recruitment advertisements. A total of 14 nursing students formed 3 groups numbering 4, 4, and 6 students respectively. There were no criteria to the formation of these groups, and it was purely of their own accord. Out of these students, 3 were freshmen, 5 were sophomores, and 6 were juniors. Their mean age was 22.7 years [range: 20–32]. The number of tutors and tutees was 3 and 11, respectively.

2.3. Tutoring process

Participants were assigned the roles of tutors and tutees before the start of online tutoring. Tutors were recruited through voluntary participation after discussions with students. The oriental nursing, physical examination and health assessment, and mental health nursing subjects were taught by professors via online lectures for one semester. Subsequently, online peer tutoring was provided to mitigate the issues of online classes, such as lack of interaction during the learning process and difficulty in determining students’ level of understanding. Therefore, the tutoring program focused on facilitating a deeper understanding and relearning of the contents taught in the online classes with peers. Despite the same topics being covered by the students in each tutoring session, individuals had the option of choosing from several learning approaches based on the GROW model. Before commencing the tutoring programs, 2 advisors (professors) conducted an orientation. In addition, during the tutoring period, advisors provided feedback and answered students’ queries regarding the tutoring process through e-mail or SNS. The tutors and tutees met every week for 6 weeks.

2.4. Data collection

Data were collected from June 30, 2020, to January 13, 2021. Immediately preceding the interview commencement, participants’ general characteristics were collected. As a precaution to reduce the chances of contracting COVID-19, three focus group interviews were sequentially conducted using an online video conferencing program; each session lasted 60–90 min. For ensuring ethical compliance, interviews were conducted by a professor, who shared no relationship with the students, after the students were graded on the tutored subjects. The interviews were recorded and transcribed after obtaining voluntary consent from the participants. The group interviews were conducted until data saturation was reached. The researchers developed a common question guide to clarify the study’s purpose and prevent any digressions during the interview; moreover, spontaneous questions were asked based on the interview flow.

2.5. Ethical considerations

The Institutional Review Board of Dongguk university approved this study (DGU-IRB-2020004). In addition, the researchers explained its background and purpose to the participants and provided them sufficient time to answer questions. Participation could be withdrawn at any time without any consequences. They were also provided with information regarding the recording and transcribing of the interview content, adherence to anonymity throughout the process, use of data for research purposes only, and destruction of data after the study’s completion. Merely those who understood the content and the process and voluntarily agreed to participate were enrolled in the study after obtaining the informed consent form.

2.6. Data analysis

Data were analyzed based on the inductive method of content analysis (Elo and Kyngäs, 2008). Based on its suggested approach, a word or phrase was selected as the analysis unit in the preparation phase. The detailed data analysis process in the organizing stage is as follows: First, the interview’s content and overall flow were
apprehended while reading its transcribed data several times; repeated words or phrases were extracted as codes. Second, the authors reviewed these systematically extracted codes and grouped them according to their characteristics. Third, the categorized contents were examined iteratively while labeling them with names representing their meanings and relevance. Finally, additional abstract categories were obtained to systemize the phenomena descriptions implicating the research purpose. Additionally, we reviewed and clarified the meanings of the concepts associated with the topics derived through table assessment to verify the data analyses' validity and appropriateness.

3. Results

Table 1 summarizes this study’s results in three main categories, subcategories, and contents.

3.1. Initiating a new approach to learning

3.1.1. Implementing a systematic learning method

The GROW-based systematic method’s application to online peer tutoring provided the participants with a methodical guide to optimal learning that showed a remarkable difference from traditional unstructured tutoring methods.

“The GROW method helps me proceed systematically by setting goals and tackling and solving difficulties by being aware of the problem-solving process.” (FGI 3-1)

By setting goals in each session according to the GROW model, the participants could navigate the tutoring course toward that objective, instead of randomly learning presented materials; this enabled greater focus on learning to achieve the set.

Table 1

| Category                        | Subcategory                  | Contents                                                                 |
|---------------------------------|------------------------------|--------------------------------------------------------------------------|
| Initiating a new approach to learning | Implementing a systematic learning method | • Providing a structured framework                                    |
|                                  | Providing motivation and energy | • Setting a clear goal                                                   |
|                                  |                               | • Being in a group, not alone                                            |
|                                  |                               | • Assuming responsibility                                                |
|                                  |                               | • Providing vitality to non-face-to-face learning environment           |
| Promoting learning efficiency in multiple dimensions | Improved compliance with class participation | • Implementing online classes as per schedule                           |
|                                  |                               | • Reviewing the content that is unclear in online classes               |
|                                  | Enabling focused learning     | • Identifying the core content                                           |
|                                  | Applying one’s own learning methods | • Identifying vulnerabilities                                         |
|                                  |                               | • Self-directed educational activities                                  |
|                                  | Enhancing efficiency through interactions | • Employment of various learning methods                               |
|                                  | Providing a convenient learning environment | • Learning from peers                                                  |
|                                  |                               | • Boosting vitality through peer support                               |
|                                  |                               | • Using various educational channels                                   |
| Encouraging perseverance in learning | Building a stable learning habit | • Increasing the learning volume                                       |
|                                  | Gaining a sense of achievement | • Continuing reviews                                                    |
|                                  |                               | • Experiencing a sense of achievement                                  |
|                                  |                               | • Presenting opinions on efficient methods                              |

3.2. Promoting learning efficiency in multiple dimensions

3.2.1. Improved compliance with class participation

Online lectures uploaded beforehand are convenient for students because they can attend classes whenever they want to; however, the schedule may be delayed or concentrating on the lecture may become difficult. Nevertheless, the peer tutoring members attended the classes promptly while focusing on it to prepare for tutoring.

“I tried hard to understand appropriately because I should comprehend it to share my opinions during the tutoring. This improved my concentration on the lesson, and I replayed the part I missed until I understood it.” (FGI 3-2)

Furthermore, the method of taking notes on unclear content or listening to an online lecture repeatedly for tutoring promoted their regular study habits for online classes.

“I reviewed the learning contents once for tutoring, and again while I was tutoring; finally, I was able to review the core content of the day’s study while taking a quiz with the tutor who helped me with my regular study.” (FGI 2-2)
3.2.2. Enabling focused learning

The participants learned to decide and implement the main activities to achieve their goals in the option and will stages. This enabled them to study more efficiently by solving their academic problems and comprehending the core content.

“I organized the contents with a mind map by deciding on key words. So, I decided while thinking about the contents of the quiz, and that helped me to grasp the main contents.”

(FGI 1-1)

For effective learning, it is important to understand the core content to identify one’s shortcomings and attempt to address them. The participants realized their weaknesses while following the GROW process of tutoring and focused on implementing efforts to improve them.

“In the case of other subjects, I often discovered the parts I did not know only when I had to learn them for the test. In the tutoring subject, however, I tried harder and concentrated more to identify ambiguous parts while listening to the lecture.”

(FGI 3-1)

3.2.3. Applying one’s own learning methods

Although tutoring was implemented in a framework of the GROW model, the participants themselves had the right to choose their educational methods at a more detailed level. They perceived this arrangement as slightly burdensome; however, they experienced autonomy in the sense that they conducted self-directed learning activities.

“We had to decide on all the details by ourselves. In that respect, we had the right to a self-directed choice.”

(FGI 1-1)

Within the GROW’s framework, the participants also chose and applied various learning methods, such as creating educational materials applicable in an online environment, writing quizzes, keeping notes, sharing reports, and creating mind maps; such attempts compensated for the one-way online lectures.

“I attended the professor’s lectures and reviewed the entire content before tutoring. I underlined difficult terms and ambiguous parts and received feedback while discussing them with the tutoring members. I had written the entire content and repeated it during the second reading. Lastly, I made a one-page synopsis of my notes and reviewed it during the exam period.”

(FGI 2-2)

3.2.4. Enhancing efficiency through interactions

The participants had an opportunity to consider those things that they overlooked in the past by comparing the questions raised and the goals set by their peers with their own during online peer tutoring, contrary to when listening to online lectures or studying alone. Additionally, they could find answers and improve their understanding of the content that they would have failed to achieve alone.

“I cannot think of other various methods and identify by myself what other students are curious about because I am limited to my own thoughts. In peer tutoring, I can consider various perspectives while listening to my peers’ opinions.”

(FGI 3-2)

Furthermore, one participant, who had difficulty asking questions in front of many students, was able to build a confident learning attitude by asking questions and receiving answers with greater comfort in tutoring sessions.

“I used to be hesitant to let others know that I was unaware of something. During tutoring, there were times when I had to talk about things that I did not know about. Now, I have learned that it is better to speak honestly without hesitation”

(FGI 2-2)

3.2.5. Providing a convenient learning environment

Online peer tutoring has the same benefits as online classes, such as the minimization of spatiotemporal constraints and the possibility of using various media. In addition to synchronous online study meetings using video conferencing software, the participants operated tutoring without spatiotemporal restraints through online bulletin boards available specifically for tutoring. Furthermore, the GROW-specific format and clear goals enabled them to control it efficiently.

“An advantage of online tutoring is the use of data. It is great because you can easily share information on your computer, search and present them in a variety of ways, and give immediate feedback.”

(FGI 3-2)

“With the systematic framework in place, we do not waste time. We do not spend time on small talk. Since we set a goal and navigate toward it throughout the study, we need less time than for other studies.”

(FGI 3-5)

3.3. Encouraging perseverance and progressing in learning

3.3.1. Building a stable learning habit

While participating in the online peer tutoring, the participants realized the importance of consistent practice and repetition in achieving their set goals. This encouraged them to take time to review what they learned after each tutoring session. Additionally, with the application of a systematic learning method to future study plans repeatedly every week, the amount of time they required to study increased steadily, and they could gain stable learning habits.

“I used to find it difficult and stressful to even sit at the desk; however, I had to sit and learn once a week and could increase the amount of study time, which I could not have done alone.”

(FGI 2-1)

“I think my greatest reward is that I have developed a habit of constant reviewing.”

(FGI 2-2)

3.3.2. Gaining a sense of achievement

The participants experienced a sense of accomplishment while following the GROW stages. Moving beyond this, they frequently and actively presented their opinions on additional elements to be integrated into the tutoring process for more effective tutoring, demonstrating their growth through GROW.

“Reflecting on each tutoring session on its completion, I would think, ‘You have achieved this goal.’ This gave me a sense of accomplishment that helped me considerably with my following study session.”

(FGI 2-2)

“I created another study group and applied the GROW model when learning for exams. I think it is worth considering adding a concrete outcome assessment part to the GROW model.”

(FGI 3-5)
To prevent COVID-19 infection, the educational environment has rapidly shifted from offline to online (Budi et al., 2020). Furthermore, researchers have reported the effects of online peer tutoring, reflecting this phenomenon (Carlama and La Ferrara, 2021; Sembiring, 2018; Zulkifli et al., 2018). This study attempted to explore the experiences of nursing students related to these trends in the field of nursing education.

In the first category, online peer tutoring initiated the participants into learning with a new approach. They reported that peer tutoring could be conducted systematically based on the GROW model, differentiating itself from the traditional, unstructured one. This is consistent with Leung's (2019) finding that structured peer tutoring has greater effectiveness on academic achievement than unstructured peer tutoring. Additionally, the participants reported that peer tutoring motivated learning; online meetings with peers provided vitality to their gloomy and languid life due to reduced face-to-face activities in the online learning environment. With the shift to non-face-to-face instruction and social distancing guidelines driven by COVID-19 (Adnan and Anwar, 2020), college students who were vulnerable to stress and mental illness were found to suffer from negative effects such as high stress levels, depression, and posttraumatic stress (Tang et al., 2020). This study found that online peer tutoring worked as a source of vitality by providing the obligation to meet and learn with peers online after experiencing reduced motivation and lethargic life. This is consistent with previous studies' findings that online peer tutoring improves academic achievement (Saunders et al., 2020; Ullah et al., 2018), promotes cohesion among peers (Evans and Moore, 2013; Price et al., 2007), and greatly contributes to enhancing the well-being of students suffering from emotional difficulties induced by the lockdown and isolation due to COVID-19 (Carlama and La Ferrara, 2021). Online peer tutoring can serve as a beneficial strategy to mitigate learning or mental health problems potentially caused by insufficient face-to-face contact.

In the second category, online peer tutoring promoted students' learning in multiple dimensions. The participants experienced enhanced class participation compliance, greater concentration on learning, application of their own study methods, promotion of learning through interaction, and a convenient learning environment. Asking a question to a peer tutor is less burdensome than asking an instructor; the former also benefits from peer tutoring by acquiring knowledge more easily through better understanding and memory while tending to the learning content at a level similar to that of the tutees (Li et al., 2018). Due to the nature of small-scale peer tutoring, feedback can be exchanged instantaneously and frequently, making it an effective means of enhancing academic achievement (Rahmasari, 2017). The disadvantages of online lecture materials, which are uploaded beforehand, are lack of self-directed participation due to less coercion for a specific class time window, lowered concentration during the lectures, and difficulties in bidirectional interactions (Dhawan, 2020).

Contrarily, this study's participants attended online classes promptly to prepare for online peer tutoring, listened to lectures with greater concentration, and interacted with each other using a real-time video conferencing program to perform the related activities. Therefore, it can be inferred that the structured online peer tutoring functioned as an auxiliary means to effectively offset its drawbacks. College students belong to the generation that experiences greater familiarity with SNS than with a formal platform such as a blackboard (Zulkifli et al., 2018). The findings demonstrated the potential of structured educational tutoring to provide pupils with appropriate assistance in various aspects of learning in the post-COVID-19 learning environment. Moreover, the participants reported that numerous study methods were employed to solve learning-related individual problems; moreover, additional learning opportunities emerged among them by sharing individual know-how acquired in this process. These findings are consistent with those of previous studies reporting that not only is peer tutoring helpful for knowledge acquisition, but also helps students learn how to study (Li et al., 2018).

In the last category, online peer tutoring was found to help the participants continue their studies in a more advanced direction. They developed steady study habits and experienced a sense of accomplishment in learning. These results are supported by previous studies indicating that students who participated in peer tutoring experienced a sense of academic confidence and achievement (Saunders et al., 2020; Zapata, 2020). The fact that online peer tutoring promotes students' sustained learning, which can ignite the virtuous cycle of improving the associated sense of achievement, provides meaningful implications for its role as an auxiliary learning strategy in online education. Furthermore, students' suggestions to improve the tutoring method or the attempts to apply it to other study group activities are indicative of an improved level of development going beyond the level of simply applying a specific model to tutoring. Essentially, the participants advanced one step further regarding learning through peer tutoring by applying the GROW model.

In the post-COVID-19 period, accelerated changes are predicted to occur in an online-based education environment. This study's results suggest that structured online peer tutoring can contribute significantly as a supplementary educational strategy to promote student interaction and self-directed online learning. Specifically, peer tutoring for undergraduate nursing students reduces the course failure rate and improves grades (Kim et al., 2021); it can be viewed as an approach to enhance nursing students' ability to adapt. This study's outcomes were significant in that they can serve as useful data for developing structured online peer tutoring for nursing students.

This research has certain limitations and suggestions for future research. First, due to the regionally limited small sample size, the results lack generalizability to expand the participants' experience to that of all Korean nursing students. Second, since this study applied an online peer tutoring method using a specific real-time video conferencing software or SNS, examining online peer tutoring using more diversified media is necessary. Third, considering that this study was conducted with nursing students, it seems meaningful to expand the sample population to schools with different characteristics or non-nursing departments and to compare their online peer tutoring experiences. Fourth, the participants of the current study joined voluntarily in response to recruitment advertisements. Thus, the experience of reticent participants who only took part in the online peer tutoring without participating in this study may not be consistent with the findings.

5. Conclusions

This qualitative study was conducted with undergraduate students of two Korean universities' nursing departments who participated in a GROW model-based online peer tutoring program to perform an in-depth exploration of their experience with structured online peer tutoring during one semester. It allowed the participants to learn using a new approach, promoted learning efficiency in multiple dimensions, and encouraged them to persevere and advance in academics, thus proving its usefulness as an auxiliary strategy to enhance the efficiency of online learning.

This study can provide valuable guidelines for setting the direction and goals of tutoring programs. The shift to the online education environment driven by the COVID-19 pandemic may be viewed as a crisis. However, as suggested in this study, online classes can be developed into efficient and high-quality learner-centered education, provided that various auxiliary means for online learning, including online peer tutoring, are actively utilized.

CRediT authorship contribution statement

Kyung Im Kang: Conceptualization, Methodology, Formal analysis, Writing-Original draft, Reviewing and editing
Nayoon Lee: Methodology, Formal analysis, Writing-Original draft, Reviewing and editing
Jaewon Joung: Formal analysis, Visualization, Writing-Original draft, Reviewing and editing.

Declaration of competing interest
There is no conflict of interest.

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