Nursing Students’ Experiences of Havruta Learning in an Online Research Methodology Course

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Abstract: Background: This study explored students’ experiences of Havruta learning in an online research methodology course and identified ways to improve course quality. Method: Participants were 168 nursing students who enrolled in a research methodology course in 2020, and their responses to open-ended questions collected after the Havruta learning sessions were analyzed using qualitative content analysis. Results: Havruta learning had a positive effect on academic achievement, including the development of self-directed learning attitudes, and strengthened basic skills for evidence-based practice (EBP), such as critical thinking, communication, and collaboration, as well as EBP competency. Additionally, areas of improvement related to the instructional design, orientation, and class content of the course were identified. Conclusion: Havruta Learning can be used as an effective teaching and learning method to cultivate the core competencies required by university students. Moreover, continuous course quality improvement activities are required to improve students’ satisfaction and academic achievement.

Keywords: academic achievement; course quality; evidence-based practice; Havruta learning; research methodology course

1. Introduction

A rapidly changing social environment requires us to reconsider the role of nursing as professional [1]. Evidence-based practice (EBP) competency has become a core nursing skill [2]. In the nursing field, efforts are being made to emphasize patient safety, maximize patient outcomes, and improve nursing quality [3–5]; thus, to achieve these goals, applying the EBP model [6–8] effectively and improving the organizational culture of EBP [9,10] is essential.

Similarly, in nursing education, efforts such as overhauling the curriculum [11], operating EBP training programs [12,13], integrating research and EBP courses [14–16], and improving the teaching and learning methods of undergraduate nursing students to boost their interest, engagement, and competency in research and EBP are being initiated [17–21].

The coronavirus disease (COVID-19) pandemic has brought about significant changes in social and educational environments [22]. Most face-to-face classes, including research methodology courses, became remote, and accordingly, appropriate teaching and learning methods were required to achieve learning outcomes. Self-directed learning is essential for academic achievement in online learning [23]. A scoping review showed that discussions, asynchronous communications, and student–student interactions were mainly used in e-learning programs for EBP education [24].

Havruta refers to friendship or companionship, which involves two people studying a Jewish text together. Havruta learning, which was theoretically established by Kent [25], is widely known as a Jewish educational method [26], which can be applied to online courses. It is a meaning–making process through interaction and a relationship between two people and the text, comprising six core practices: listening, articulating, wondering, focusing,
supporting, and challenging [25]. In college classes, Havruta increases student interaction, engagement [27], communication skills, and self-directed learning [28].

Based on the quality improvement analysis results from the 2019 class [29], there was a recognized educational need for evaluating evidence quality, understanding research concepts, and applying EBP cases. Consequently, the design of the 2020 research methodology course aimed to address these needs. In response to the shift to online learning due to COVID-19, collaborative learning using the “Havruta” method was implemented to enhance students’ comprehension of the course material through online approach. Previous studies have highlighted the effectiveness of “Havruta” learning in face-to-face settings [27,28]. It was quite challenging to find studies that specifically examined the effects of Havruta learning using online methods. Therefore, this study explored the feasibility of online “Havruta” learning and assessed its preliminary effects, providing valuable empirical evidence.

The following research questions are proposed:

Question 1: What were nursing students’ experiences of Havruta learning in an online research methodology course?

Question 2: In what ways can the quality of the online research methodology course be improved in the future?

2. Methods

2.1. Study Design

This study was conducted as class quality improvement activities. This study used qualitative content analysis to explore nursing students’ experiences of Havruta learning in an online research methodology course and identified ways for improving course quality.

2.2. Study Participants

A total of 168 third-year nursing students who enrolled in a research methodology course participated in this study. This is a 15-week course (30 h) for two credits that is taught in the second semester of the third year. Due to the COVID-19 pandemic, the course was conducted online in 2020.

2.3. Class Operation Method

The goal of the research methodology course was to develop nursing students’ EBP competency to enable them to recognize the importance and necessity of EBP and nursing research, understanding the main concepts of nursing research and EBP, and to facilitate them becoming early adopters of EBP. Havruta learning was adopted as the main teaching and learning method, and the classes were designed and operated based on the structural domain of the Havruta-inspired pedagogy framework suggested by Kent and Cook [26].

2.3.1. Mode of Conducting Havruta Learning Sessions

Havruta learning sessions were conducted using Microsoft Teams or Zoom, and they were recorded after obtaining verbal consent from the students. After each session, students uploaded the recorded videos to the team folder that was created by the educator in Microsoft Teams.

2.3.2. Havruta Learning Session Schedule

The quality improvement analysis results for the research methodology course in 2019 revealed that students had an insufficient understanding of the definition of EBP and the formulation of clinical questions. Additionally, they wanted to learn more about the basic concepts of research and the quality assessment of evidence. Therefore, the first Havruta learning session was conducted after completing classes (in the third week) on the understanding of the definition and process of EBP and the formulation of clinical questions; the second session after completing classes (in the eighth week) on the understanding of the hierarchy of evidence and basic research concepts; the third session after completing...
classes (in the tenth week) on the understanding of the criteria for quality assessment of randomized control trial studies; and the fourth session after completing classes (in the thirteenth week) on the understanding of the criteria for quality assessments of quasi-experimental studies and descriptive research.

2.3.3. Student Grouping

In Havruta learning sessions, students were divided into groups of two, which were determined by the educator in advance.

2.3.4. Procedure for Conducting Havruta Learning Sessions

Havruta learning sessions were conducted as follows: First, the educator filmed the lectures and uploaded them on the content management system (CMS) a week in advance. At that time, the lecture plan and materials for the class were also uploaded. The contents of the lectures were organized based on clinical cases using animation to induce students' interest and engagement.

For each Havruta learning session, the students were required to ask at least three questions that they had devised during discussions with their partners. In the first session, students were free to discuss any topic; however, in the remaining three sessions, they were required to discuss questions related to the class contents. After each session, the students answered an open-ended question about their experiences of Havruta learning.

2.3.5. Supporting Students to Work Independently and Interdependently

During the orientation session which was conducted in the first class of the course, the educator provided related audiovisual materials and explanations to assist students in understanding the process of Havruta learning. Moreover, the educator helped students engage in Havruta learning, independently from the educator, and interdependently with their partners.

2.4. Data Collection

Students’ responses to the open-ended questions, which allowed them to freely share their experiences, were collected using an online survey tool after each Havruta learning session. During the orientation session, the educator explained how to answer the open-ended questions and provided the link for the online survey tool (www.pollboom.com, accessed on 7 September 2020). All data were collected anonymously; furthermore, the data were downloaded as an Excel file from the online survey tool’s website and stored as a password-protected file on a computer, which was managed and accessed by the educator alone.

A total of 168 students were enrolled in the research methodology course. The open-ended questions were answered by 150 (89.3%), 162 (96.4%), 139 (82.7%), and 140 (83.3%) students after the first, second, third, and fourth Havruta learning sessions, respectively. These data were used for qualitative content analysis.

2.5. Data Analysis

The responses to the open-ended questions were analyzed based on the three stages of qualitative content analysis by Elo and Kyngäs [30]. In the preparatory stage, a sentence or phrase was selected as a unit of analysis, marked as a unit of meaning. In the organizational stage, an inductive content analysis method was used. First, Dr. S, who conducted the session, read the material, marked the key content and keywords, and placed a memo or title to describe all parts of the material while performing open coding. Moreover, the educator repeatedly read the responses to the open-ended questions (at least four times) at regular intervals and freely created categories. Subsequently, two researchers (Dr. P and Dr. K) independently reviewed the coded data and the adequacy of the primary categories. Then, secondary categorization was independently conducted by three researchers based on the relevance between the topics, considering the experiences of
Havruta learning and aspects of improving course quality. Any disagreement during the adequacy review of the categorization processes was resolved through discussions. The extracted themes were presented by measuring their frequency and visualizing them in a word-cloud (https://word-cloud.freebusinessapps.net, accessed on 7 June 2023).

2.6. Ethical Consideration

This was a minimal risk study that analyzed data from a course quality improvement activity. During the orientation session, the educator provided sufficient information about the open-ended questions to be filled after the Havruta learning sessions and informed the students that their participation was voluntary and could be withdrawn at will. Moreover, the students were informed that they would not be graded on participation and would be required to take out personal time for answering the questions. The study was conducted anonymously and no sensitive information about the students was collected.

2.7. Trustworthiness of the Study

A checklist for ensuring the trustworthiness of a content analysis study was used in this study [30]. In the preparation stage, students who had enrolled in a research methodology course that applied Havruta learning were asked to spontaneously answer open-ended questions at their own free will to collect data that were suitable for the research purpose. Furthermore, the data were collected using an online survey tool after each Havruta learning session. When selecting a unit of analysis from a sentence or phrase related to the Havruta learning experience or course improvement, we ensured that the meaning of the unit of analysis was not too narrow or broad.

In the organizing stage, when deriving the theme, the researcher read the materials repeatedly at regular intervals and identified themes that were categorized in such a way to avoid overlap between the categories. In case of disagreement among researchers in the categorization and abstraction processes, discussions were held until an agreement was reached; the final decision was made after the three researchers rechecked the analytical process.

In the reporting phase, we attempted to report the results of the analysis systematically and logically. Furthermore, the relationships between the data and results reported were emphasized by including the representative response phrase of the participants, clearly conveying their meaning. Research methods, including participants, sampling, and data collection methods, were reported in detail so that readers could evaluate the transferability of the results.

3. Results

As a result of qualitative content analysis, a total of 15 themes emerged, which were classified into four categories: academic achievement, basic skills for EBP, EBP competency, and course quality improvement. These categories were further consolidated into two main categories: Students’ experiences of Havruta learning and Instructional innovation. When examining the frequency of the extracted themes, it was found that “Learning_Understanding” was the most frequently mentioned, followed by “Self-directed Learning”, “Creativity”, and “Collaboration_Relationship”, in that order (Table 1).

The presented results, reflecting the frequency of the extracted keywords, are shown in Figure 1.
Table 1. Results of qualitative content analysis.

<table>
<thead>
<tr>
<th>Main Category</th>
<th>Category</th>
<th>Theme</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students’ experiences of Havruta learning</td>
<td>Academic achievement</td>
<td>Learning_Understanding</td>
<td>218</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Learning_Concentration</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Learning_Retention</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Self_Directed_Learning</td>
<td>66</td>
</tr>
<tr>
<td>Students’ experiences of Havruta learning</td>
<td>Basic skills for EBP</td>
<td>Communication</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Collaboration_Relationship</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Creativity</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Critical thinking</td>
<td>5</td>
</tr>
<tr>
<td>Students’ experiences of Havruta learning</td>
<td>EBP competency</td>
<td>Clinical question</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Critical appraisal</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Searching</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EBP_Positive_Attitude</td>
<td>1</td>
</tr>
<tr>
<td>Instructional innovation</td>
<td>Course quality improvement</td>
<td>Class difficulty</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Difficulty asking questions</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Interaction</td>
<td>10</td>
</tr>
</tbody>
</table>

EBP = evidence-based practice.

3.1. Students’ Experiences of Havruta Learning

The majority of students reported experiencing improvements in their comprehension of course content through Havruta learning. They also noted that it contributed to enhancing self-directed learning and other factors associated with academic achievement. Additionally, they reported experiencing an improvement in their understanding of foundational skills required for evidence-based practice, as well as enhanced abilities in clinical questioning and critical appraisal, which are essential components of the evidence-based practice.

3.1.1. Academic Achievement

The students commented that their understanding of course contents increased through Havruta learning. Moreover, they listened to the lectures more carefully in preparation for exchanging questions with their partners and putting their thoughts into words made the content easier to remember. However, some students complained that having to devise questions impacted their concentration in class. Some examples of the responses are provided below.

“Having the awareness of devising questions at the back of my mind, I concentrated better and was able to go deeper into parts I would have otherwise neglected.”
“Listening to the lecture with the purpose of formulating questions helped me concentrate. When we exchanged questions, the content seemed to remain in our memory for longer, and we gained a more accurate understanding of the material.”

“Explaining what I had learned to another person through the Havruta learning activities was helpful. I could remember what I had explained for a longer time.”

“I went back to the parts I would have otherwise easily overlooked and tried to fully understand them. They seemed to stay longer in my memory.”

“I was overwhelmed by the thought of formulating questions and could not focus on the lectures. I had to listen to the lectures multiple times.”

Moreover, the students reported that they had developed self-directed learning attitudes by participating in Havruta learning sessions; they sort to actively solve problems and felt a sense of responsibility toward their learning. For example:

“I thought I knew what I had learned, but the process of expressing it into words allowed me to recognize the parts of the knowledge that I lacked. This has helped me address the gaps in my learning.”

“If it was an ordinary theoretical class where I only listened to the lecture, I would have memorized the contents. However, the process of asking questions helped me understand what I did not know.”

“I have not been trained to put my thoughts into words. When I tried to explain the knowledge I had in Havruta learning sessions, it was beneficial to see what parts confused me and what I knew.”

“As these were team activities in pairs, I felt more responsibility than if I was doing them alone. I put more effort into formulating questions, finding answers, and preparing for the activities.”

3.1.2. Basic Skills for EBP (Communication, Collaboration, and Critical Thinking)

In relation to communication, the students reflected on their attitudes, listened carefully to others, recognized the need for communication skills, and gained confidence in communicating with others. Some examples of the responses are as follows:

“I was a little nervous. I felt sorry for interrupting my partner when she was talking.”

“I wondered how to express my thoughts to the listener in a simple and clear manner.”

“I discovered the joy of discussion through Havruta learning sessions. I learnt that I was not good at explaining things and felt the need to practice conveying my opinions to others.”

“At first, I felt pressured to make perfect statements. However, as we casually exchanged questions and shared our thoughts, although not perfect, I felt more confident about talking and gained a clearer understanding of the learning contents.”

Due to the COVID-19 pandemic, the students were unable to meet their friends as their class schedules were different; however, Havruta learning sessions provided them with the opportunity to become friends with their partners. They also learned about teamwork and co-operation. For instance, they stated:

“I had a difficult time making friends at the university. This task allowed me to interact and become familiar with my partner; we became close friends. I was able to build a closer relationship with my partner than I would have been able to with a group of people.”

“I used to prefer working by myself as it was more convenient. However, I enjoyed working on the task with my partner as we were able to talk one-on-one and become close to each other.”

“Tackling a problem that is difficult for me to solve alone with a friend, allowed us to obtain more accurate and superior results.”
“By talking to each other face-to-face via zoom, we were able to more actively engage in the activities and present our opinions. We also learned how to combine our opinions.”

Some students mentioned that the Havruta learning sessions provided them an opportunity for critical thinking and provided a platform to consider various viewpoints, opinions, or perspectives. For example:

“It was an opportunity to critically think about the class contents. I grew accustomed to the process of thinking more deeply and drawing questions through critical thinking.”

“I wrote down questions that came to my mind, which I would have otherwise ignored, looked them up later, and searched for relevant materials. Discussing them with my partner allowed me to discover new questions and opinions that I had not considered. This broadened my thoughts and views and enabled me to think more critically about nursing.”

“While trying to answer a question about the same clinical situation with my partner, I thought, ‘Why hadn’t I thought of that? Why did I think about this from only one perspective and stick to it?’ and ‘I only researched those papers that fit my narrow perspective,’ and I was disappointed in my lack of abilities after the first activity.”

“It was amazing to discover how my ideas were completely different from those of my partner about the same subject. I realized that my opinion may not be always right, and listening to my partner’s thoughts broadened my own.”

3.1.3. EBP Competency

Although the students faced difficulties in asking clinical questions, they expressed confidence in doing so using the PICO format and felt that their understanding about EBP was enhanced through Havruta learning. Moreover, their understanding of a research article improved through Havruta learning and the activities associated with the research report assignment; consequently, they formed a positive attitude toward EBP and were keen to apply its competencies. Provided below are some students’ responses.

“As I received help from my partner in solving a problem, I could ask questions about the background and was proud to formulate clinical questions in the PICO format. I was new to this method of learning, but I could picture myself getting better at this.”

“In the process of taking the class and engaging in Havruta learning with my partner, I understood how to analyze and study research papers. In trying to read the papers in accordance with the contents of the class, I got a sense of how to write a research report with my partner.”

“Analyzing the research paper that I selected with my partner, we inquired, ‘What would be the confusing variable of the paper we had selected?’ Instead of reading the papers passively, we tried to understand them from an objective perspective and organize their contents.”

“The words, ‘Aren’t you trained in customary practice to do something that you are not convinced about?’, struck me and made me feel ashamed. Despite being busy and tired during clinical practice, I intend to continue practicing evidence-based nursing.”

3.2. Instructional Innovation

Through the implementation of Havruta learning using Microsoft Teams or Zoom, it was possible to confirm the need for instructional method improvements to enhance students’ evidence-based practice competency. The results indicated the importance of adjusting the difficulty level of course content, improving interaction between students and professors, and enhancing students’ questioning abilities.
Course Quality Improvement

The Havruta learning method helped students better understand the subject of research methodology as compared to lecture-style classes. However, potential improvements in terms of orientation, class content, and instructional design were identified. The students expressed difficulties in asking questions during the Havruta learning sessions. Moreover, as students were assigned the same partners throughout the four sessions, some of them wanted to change partners so that they could be exposed to different opinions. They also wanted to discuss with the educator the problems that remained unresolved after the sessions. After the class on the criteria for the quality assessment of evidence, they experienced a sudden increase in the level of difficulty. Some students’ responses are indicated below.

“I enjoyed engaging in Havruta learning with my partner, however, I would also like to experience it with different partners to share different ideas.”

“I tried to solve a problem by discussing it with my partner through Havruta learning, but we failed to draw a conclusion.”

“Havruta learning certainly helps with discussion and finding answers. However, it is not suitable for discovering information that neither participant knows (information that cannot be obtained through discussion).”

“This week’s lecture was difficult; thus, I found it difficult to formulate questions. Even after devising the questions, it was difficult to resolve them through discussions with my partner.”

4. Discussion

This study explored nursing students’ experiences of Havruta learning in an online research methodology course and identified areas of improvement in course quality. This study found that Havruta learning has been helpful in improving students’ academic achievement. The students were more attentive during the lectures so that they could formulate questions related to the class contents and experienced an improvement in learning memory through the process of answering questions and providing explanations to their partners. Furthermore, they reported that the explanations provided by their partners, which included detailed examples, helped them understand difficult research concepts. As the students experienced the effects of self-directed learning, they intended to apply this method of learning while studying other subjects. Therefore, the Havruta learning method will be a useful teaching and learning method for undergraduate students to improve their academic achievement in a research methodology course, which is often challenging [29]. However, further rigorous research is required to verify the effectiveness of this method.

This study noted Havruta learning’s positive impact on enhancing their basic skill for EBP; critical thinking [31], communication [32], and collaboration [33] are the basic skills for EBP. Kent (2010) defined Havruta learning as an activity of listening to others’ opinions through questioning, discussing, and cooperating with each other to enhance thinking skills [25]; the students had similar experiences through the course activities. In line with the results of this study, a qualitative study by Shargel [27] listed learning through discussion, discovery of new perspectives, and peer support as the benefits of Havruta learning. Furthermore, the study results demonstrate the potential of developing the basic skills for EBP in undergraduate nursing students using Havruta learning.

This study revealed that Havruta learning can be utilized as a learning method to improve students’ EBP competency. The EBP integrated research methodology course was designed to allow students to experience the EBP process through Havruta learning: acquiring theoretical knowledge and skills related to EBP, gaining confidence in EBP implementation, and identifying challenges of EBP implementation in an actual clinical setting. Although several educational methods that improve students’ EBP competency have been reported [12,18,34], this study shows that Havruta learning could be a more effective instructional method. Therefore, further research is necessary to build...
evidence to identify the effectiveness of Havruta learning in improving nursing students’ EBP competency.

Several course quality improvements were suggested in this study. First, during the orientation session, specific examples of Havruta learning, guidance on the types and methods of questions, and simple practice activities should be provided. Second, online content, such as reusable learning objects [35], can assist students in understanding research concepts or evidence-quality appraisal criteria. Lastly, a standardized instructional design, including educator–student interaction, should be adopted to achieve the course objectives.

5. Conclusions

Understanding research concepts is essential for implementing EBP [15], and the degree of academic achievement in a research methodology course can affect prospective nurses’ EBP competency. This study’s findings show that Havruta learning can be conducted in an online format and it fosters students’ attitudes toward self-directed learning in online education, and strengthens their basic skills for EBP and EBP competency. To improve the quality of evidence-based education, creative teaching and learning methods that reflect students’ preferences and improve the quality of class operations should be adopted. Furthermore, a support program for educators is essential to enhance their proficiency in implementing Havruta learning effectively.

However, this study had some limitations. It explored students’ experiences of Havruta learning using qualitative content analysis and did not objectively measure the effectiveness of this learning method. Thus, it is necessary to conduct experimental studies to identify the effectiveness of Havruta learning applied in a research methodology course. Moreover, as this study was conducted at a single university, the results should be generalized with caution.

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Informed Consent Statement: Student consent was waived due to analysis of responses to open-ended questions for class quality improvement activities.

Data Availability Statement: The data presented in this study are available on request from the corresponding author. The data are not publicly available due to privacy.

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