Improving the Interprofessional Relationship between Nurses and Speech-Language Pathologists - Expansion of a Project

Christina Hamling
*University of Nebraska - Lincoln*, chamling2015@gmail.com

Kristy Weissling
*University of Nebraska-Lincoln*, kweissling2@unl.edu

Jan Tubbs
*Bryan College of Health Sciences*, jan.tubbs@bryanhealth.org

Jenna Dubas
*Bryan College of Health Sciences*, jenna.dubas@bryanhealth.org

Follow this and additional works at: [https://digitalcommons.unl.edu/ucareresearch](https://digitalcommons.unl.edu/ucareresearch)

Part of the [Interprofessional Education Commons](https://digitalcommons.unl.edu/interprofessionaleducation), [Nursing Commons](https://digitalcommons.unl.edu/nursing), [Other Teacher Education and Professional Development Commons](https://digitalcommons.unl.edu/otherteachereducation), and the [Speech Pathology and Audiology Commons](https://digitalcommons.unl.edu/speechpathology)

Hamling, Christina; Weissling, Kristy; Tubbs, Jan; and Dubas, Jenna, "Improving the Interprofessional Relationship between Nurses and Speech-Language Pathologists - Expansion of a Project" (2018). UCARE Research Products. 146.

[https://digitalcommons.unl.edu/ucareresearch/146](https://digitalcommons.unl.edu/ucareresearch/146)
Improving the Interprofessional Relationship between Nurses and Speech-Language Pathologists - Expansion of a Project

Authors: Christina Hamling, Undergraduate Student University of Nebraska – Lincoln
Kristy Weissling, SLP-O, CCC-SLP University of Nebraska – Lincoln
Jenna Dubas, MSN, RN Bryan College of Health Sciences
Jan Tubbs, MSN, MS, RN Bryan College of Health Sciences

Introduction

Interprofessional education has been shown to improve patient care in medical settings by increasing efficiency, improving services, and reducing medical errors (McNeilly, 2014). This research project provided the researchers with preliminary outcome data regarding a program aimed to educate nurses about the role of the speech-language pathologist (SLP) in medical settings. Additionally, the researchers planned to improve the interprofessional relationship between nurses and speech-language pathologists. This was accomplished by educating student nurses and speech-language pathologists about each other's fields through observations, one on one instruction, and educational materials.

Methods

A mixed methods approach to data collection using quantitative and qualitative methods was utilized. This included multiple choice questions, Likert-scale items, and open ended responses.

Participants: There were 63 participants in this research project. The participants were Bryan College of Health Sciences nursing and UNL SLP undergraduate students. The educational handout was given to 33 nursing students in the fall semester and the educational video was given to 15 nursing students in the spring semester. All 16 SLP students were given an educational handout.

Materials: The materials used in this research project were a pre-test, an educational handout and video, and two post-tests. The second post-test was sent to willing participants approximately a month after their observation to test carry over of information from our activity.

Daily Procedures:

1. Present the research participants with a pre-test.
2. Allow the research participants time to read the education hand-out or watch the educational video.
3. Have research participants observe a minimum of three observations of various lengths (20-60 minutes) in the Barkley Speech Language and Hearing Clinic or observe online, pre-recorded observations.
4. Present the research participants with the post-test and collect data.

Nursing Data:

From August 2017 to March 2018, a total of 47 nursing students participated in this research project. In the fall semester, 32 students were given an educational handout. In the spring semester, 15 nursing students were given an educational video. The average of the pre-test and post-test scores are as follows:

<table>
<thead>
<tr>
<th></th>
<th>Fall 2017 - Educational Handout:</th>
<th></th>
<th>Spring 2018 - Educational Video:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PRE-TEST (N=32)</td>
<td>POST-TEST (N=32)</td>
<td>PRE-TEST (N=15)</td>
</tr>
<tr>
<td>Rating 1</td>
<td>73.4%</td>
<td>96.1%</td>
<td>71.7%</td>
</tr>
<tr>
<td>Rating 2</td>
<td>6.4%</td>
<td>2.1%</td>
<td>29.8%</td>
</tr>
<tr>
<td>Rating 3</td>
<td>25.0%</td>
<td>12.5%</td>
<td>9.0%</td>
</tr>
<tr>
<td>Rating 4</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Rating 5</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

To test the statistical significance of the education handout, we used a two-tailed t-test for dependent measures:

\[ p = 0.00001 \]

Result: \( p \leq 0.05 \).

When asked to rate the activity and experience (with 0 not being beneficial or informative at all, to 5 being extremely beneficial and informative) the participants’ responses are as follows for both the Fall and Spring Semester:

<table>
<thead>
<tr>
<th>Participant's Response</th>
<th>Fall Semester</th>
<th>Spring Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rating 1</td>
<td>64%</td>
<td>61%</td>
</tr>
<tr>
<td>Rating 2</td>
<td>25%</td>
<td>12%</td>
</tr>
<tr>
<td>Rating 3</td>
<td>25%</td>
<td>9%</td>
</tr>
<tr>
<td>Rating 4</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Rating 5</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

To test the statistical significance of the education video, we used a two-tailed t-test for dependent measures:

\[ p = 0.000908 \]

Result: \( p \leq 0.05 \).

Discussion

The researchers found an improvement in nursing student's ability to identify the role of speech-language pathologists in a medical setting, and speech-language pathology student's ability to identify the role of and importance of nurses within a medical settings. Although both the educational handout and video results were statistically significant, the educational handout provided slightly better results based on the percentage differences between the two educational materials.

When a t-test analysis was performed, it also showed the SLP data was statistically significant.

The main limitations of this research project included the following:

- There was no untreated control group.
- Every research participant was exposed to a different set of observations.
- There was no control over the experiences each research participant had with professionals in each field.

When asked to rate the activity and experience (with 0 not being beneficial or informative at all, to 5 being extremely beneficial and informative) the participants’ responses are as follows:

<table>
<thead>
<tr>
<th>Participant’s Response</th>
<th>Fall Semester</th>
<th>Spring Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rating 1</td>
<td>84.4%</td>
<td>94.5%</td>
</tr>
<tr>
<td>Rating 2</td>
<td>25.0%</td>
<td>12.5%</td>
</tr>
<tr>
<td>Rating 3</td>
<td>0%</td>
<td>62.5%</td>
</tr>
</tbody>
</table>

Qualitative data was collected using the following prompt:

- What new information or concepts did you learn through this activity?
- Common themes from this prompt included learning how to communicate with patients, learning about swallowing disorders, and learning about the field of speech-language pathology.

The statistical significance was determined using a one-tailed, paired t-test:

\[ p = 0.000013 \]

Result: \( p \leq 0.05 \).

Future Directions

The researchers plan to continue this project by educating future nursing students with the educational materials and collecting maintenance data. For the speech-language pathology students, the plan is to improve the educational hand-out and the information about nursing presented to them. This will be carried out in the form of increasing the difficulty of the pre-test and reevaluating the educational handout. The researchers’ goal is to increase the efficiency and quality of interprofessional education between nursing and speech-language pathology students.

References