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Connecting Speech – Language Pathology Graduate Students to Their Future; Telepractice Pedagogy in the Classroom



#### Connecting Speech-Language Pathology Graduate Students to Their Future; Telepractice Pedagogy in the Classroom

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#### ABSTRACT

Basic skills requirements, implementation, training and competency for effective telepractice delivery remain relatively underinvestigated. As a result of COVID-19 it is now being conducted an everyday practice in many clinical settings. Professional support for certified, licensed speech-language clinicians is rapidly emerging. The question is "How are we preparing graduate students to provide telepractice as entry level clinicians?" This paper introduces the investigation of speech-language pathology graduate student's perspectives of telepractice training and delivery as a pedagogical tool within the <u>non-clinical</u> academic environment.

Qualitative data, addressing the phenomenology of graduate student perceptions of tele-practice inclusion during classroom lecture, was collected via a final semester assignment investigating student perceptions on the use of telepractice as a learning tool in the classroom. Responses were analyzed to determine perspectives on instruction for using telepractice, experience with technology, implementation of a virtual session, and overall satisfaction with the experience, practice application and potential impact on employability.

Response analysis identified three major perceptual themes: 1.) Valuable pedagogy in contributing to positive impact learning, 2.) Enhancement of professional development and 3.) Potential to enhance employability.

These findings suggest student perspectives on use of telepractice as a graduate level pedagogical tool has merit in academic training for therapeutic implementation, satisfaction with the learning platform and professional application.

#### **OBJECTIVES**

The aim of this study was to describe graduate student's attitudes toward inclusion of telepractice as an in course didactic hands-on instruction pedagogy. Specifically, to address: 1.) the learning impact of hands on telepractice experience within the classroom environment, 2.) identify helpfulness of the various tasks, 3.) perceived influence on professional development and 4.) effect on potential employment opportunities.

#### METHODS

Participants in this study include 61 second semester graduate students from two cohorts enrolled full time in an accelerated speech-language pathology degreed program. Student ages ranged from 21 - 41 years of age with a mean age of 24.7 (Table 1). Participants included 5 males and 56 females all with earned undergraduate degrees. No prior experience with structured virtual participation activity was reported outside of engaging in social media with family and peers.

**Design**: A cross sectional study design was used to assess the phenomenology of graduate student perceptions on the inclusion of telepractice during classroom lecture. Qualitative data was collected via final reflective assignment investigating student feedback on their perceived experience and applicability to professional practice. Procedure: Graduate Students (GS) enrolled in a 15week aphasia course participated in required weekly teleparticipation activities with an off-campus participant. Each week, pairs of students selected a course topic, planned, organized and conducted an informal assessment and carried out an evidenced based treatment activity while the remaining cohort observed, collected participant performance data and documented findings. Included in documentation, students provided a statement addressing what went well and what could be improved for both the student clinicians and the participant. At the end of the semester, students completed a 10-question survey. Data Analysis: Fifty-nine de-identified graduate student reflective papers were analyzed by three independent reviewers; the Classroom Instructor, and two Graduate Students who attended and participated in the teleparticipation classroom activity. Analysis of responses included identifying student's written reflections on experiential factors which were perceived to:

- 1. Facilitate learning,
- 2. Impede learning
- 3. Be generalized to overall professional skills4. Be a statement of satisfaction with training5. Indicate comfort using a virtual service delivery model
- 6. Be helpful in contributing to employability

#### RESULTS

Three themes emerged from the data analysis. First, use of Telepractice, was reported by 100% of student respondents to be perceived as a valuable classroom pedagogy in facilitating the learning of course content. Second, 82% of student respondents indicated Telepractice experience, embedded in course lectures promoted professional development and third, 89% of student respondents perceived the experience would potentially improve employability.



#### CONCLUSIONS

Given the exploratory nature of this study, initial findings suggest graduate student support for the use of virtual patients/telepractice embedded in course curriculum, believe it enhances professional development and improves candidacy for employment. A significant number of negative responses addressing technology were reported. Specifically, troubleshooting connectivity, creating intervention materials for virtual delivery and training client on navigating telepractice platforms. Clinical delivery was reported to be intimidating initially, however quickly resolved with onset of engagement. Students had a number of positive suggestions for improving the experience including learning the "how to" deliver effective intervention, require prior practice and to have a "better understanding" of the disorder prior to initiating activity. Based on initial results and suggestions for experiential improvement, continued investigation addressing technological training in the delivery of therapeutic intervention and establishing baseline performance competencies for both clinician and patient recipient are needed.



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#### Laura E. Lenkey, PhD, CCC-SLP

- Adjunct professor at Radford University
- Former assistant professor at Grand Valley State University
- PhD from Florida State University and MA and BS from Northern Illinois University, College of Health & Human Sciences
- Academics 2016 bringing over 35 years of experience from private practice with a primary focus on cognitive communication disorders
- Research focus investigating and advocating for evidenced based training in, establishing competency measures and implementation of telepractice for entry level clinicians

# Objectives

- As a result of this activity, participants will be able to describe the advantages of the use of telepractice as a pedagogical experiential learning tool in the face to face and virtual classrooms.
- As a result of this activity, the participant will be able to identify techniques for integrating telepractice in the face to face and virtual classrooms to enhance traditional pedagogy.
- As a result of this activity, the participant will be able to recognize the importance of inclusion of telepractice in the academic and clinical pedagogy, in lieu of social distancing.

# Introduction

- Basic skills requirements, implementation, training and competency for effective telepractice delivery remain <u>underinvestigated</u> for the certified/licensed SLP
- Telepractice is a growing viable alternative to meet demand and exponential growth in numbers of persons with communication disorders
- Need to establish minimal skill levels, adequate training protocols, competency and readiness measures, and strategies for troubleshooting technology
- "Are we preparing graduate students to provide telepractice as entry level clinicians?"



# Introduction

- A handful of studies investigating the provision of telepractice by graduate students in academic clinical settings exists
- This study introduces the investigation of speech-language pathology graduate student's perspectives of telepractice training and delivery as a pedagogical tool within the *non-clinical* academic environment
- Lectures include dynamic therapeutic intervention delivered virtually to real subject participants (distant locations) by graduate students to authenticate weekly course objectives



# Study Design

#### A cross sectional study design

• Used to assess the phenomenology of graduate student perceptions on the inclusion of telepractice during classroom instruction

#### Qualitative data

- Collected via a final semester reflective questionnaire
  - Student feedback on the experience and applicability to professional practice



# Subjects

- Participants in this study include 59 second semester graduate students from two cohorts enrolled full time in an accelerated speech-language pathology training program
- Student ages ranged from 21 41 years of age with a mean age of 24.7 years
- Participants included 5 males and 56 females all with earned undergraduate degrees
- The course in which the students were exposed to Telepractice was a 15 week Aphasia course required for an earned master's degree from an accredited communication sciences and disorders training program

### Assignment

- Graduate Student engagement with a virtual participant (VP), collection of VP performance data, documentation of session findings, and personal reflections on the experience
- Students were introduced to the assignment at the onset of the semester and provided introductory training in virtual connectivity
- And application of speech-language pathology service delivery from an online platform prior to their telepractice engagement.



### Assignment

#### The telepractice assignment included the following:

- 1. Self-enrollment in small groups of no more than 3 students
- 2. Each small group selected one of twelve weekly aphasia topics
- Each small group developed and submitted a Telepractice Encounter plan inclusive of a 10 12 item informal assessment instrument and 2 3 evidenced based treatment activities
- 4. The Assessment instrument and Treatment activities were required to reflect and be referenced as a form of evidenced based practice



#### Course VPE Topics

- Session #1 Interview
- Session # 2 Informal Assessment
- Session # 3 Formal Assessment
- Session # 4 Therapy Approaches
- Session # 5 Cognitive Considerations
- Session # 6 Word Production

- Session # 7 Reading
- Session # 8 Writing
- Session # 9 Sentence Production
- Session # 10 Quality Of Life
- Session # 11 Right Hemisphere
  - Session # 12 Motor Speech

#### Virtual Patient

- The VP was a 76-year-old male, six-years post cerebral vascular accident and his 76-year-old wife of 50 years.
- The VPs were offered an opportunity to engage in weekly telepractice sessions with speech-language pathology graduate students as a means of increasing the VP's communication engagement options as well as facilitate student learning and skill acquisition.



#### The Encounter

- The telepractice encounter was embedded into the course's weekly two-hour and fifty-minute time block.
  - The weekly time block was structured as follows:
    - Traditional course content lecture (2 hours)
    - Followed by telepractice encounter reflecting weekly course topic (30 minutes)
    - Concluding with cohort debrief and introduction to the following weeks course objectives (20 minutes)



### The Encounter – remaining cohort

- The remaining students enrolled in the course were given access to each week's small group informal assessment and treatment plan prior to the encounter.
- All students (not conducting the encounter) were responsible for observing each encounter collecting data and submitting documentation in the form of a subjective, objective, assessment and plan (SOAP) note each week.
- After disconnecting with the VP, a debriefing was conducted for group and cohort reflection.



#### The Encounter – remaining cohort

- Application of course content, strengths and weaknesses of the assessment plan and treatment activities, graduate student performances and VP skill sets were identified
- Alternative and/or options for improvement were examined
- Submitted documentation of the session (in SOAP format) was required within 24 hours of the encounter



# *"From a teaching standpoint, how did the in-class virtual person encounter influence your learning experience?"*

- 1. "Did the experience facilitate learning material specific to the course? If so, how?"
  - 2. "Did the experience impede learning material specific to the course? If so, how?"
- 3. "How could you improve the experience?"
- 4. "What was the most helpful with the experience?"
- 5. "What was least helpful?"
- 6. "Was there adequate training to assist with your comfort in utilizing a virtual treatment delivery model in the future?"
- 7. "How did the in-class experience assist with comfort in utilizing a virtual treatment delivery model in the future?"
- 8. "Do you think exposure to this experience will be beneficial in obtaining future employment? If so, how?"
- 9. "Do you think exposure to this experience will improve employability? If so, ho
- 10. "Any additional comments?"

#### Results

- Fifty-nine de-identified graduate student reflective questionnaires were thematically analyzed by three independent reviewers:
  - Classroom instructor, and two graduate students who attended and participated in the telepractice classroom activity
  - A .923 intraclass correlation coefficient indicated excellent reliability between the three raters
  - Analysis revealed six primary graduate student perceptions



# Six Primary Perceptions Identified VPE Impact on:

- 1. Facilitation in learning material specific to course content
- 2. Impedance in learning material specific to course content
- **3**. Satisfaction with training to assist with comfort in utilizing a virtual treatment delivery model in the future
- 4. Comfort in utilizing a virtual treatment delivery model in the future
- 5. Generalization to overall professional skills and beneficial in obtaining future employment
- 6. Perceived contribution to future professional employability will improve employment opportunities



#### Student Perceptions Telepractice Classroom Pedagogy







## Responses specifically included

- L. 100% of graduate students involved in classroom telepractice activity reported some level of perceived facilitation in learning course content
- 2. < 11 % reported some impedance to learning (related to technology issues)
- 3. 56% reported adequate training for conducting telepractice
- 4. 86% believed training prior to performing telepractice increased their comfort level
- 5. 82% believed the experience would be beneficial in obtaining future employment (professional skills)
- 6. 89% perceived the experience to positively impact employability (employer's perception)



### Perceptions Not Contributing to findings:

Questions not contributing to the primary perceptions included:

- 1. What about the experience was most helpful?
- 2. What about the experience was least helpful?
- 3. What recommendations do you have for improving the experience?
- 4. Additional comments.



### Themes

Three prominent themes emerged from the 6 primary perceptions identified in the data;

That the use of telepractice training and implementation during classroom instruction is a valuable pedagogy in contributing to:

- 1. Positive impact in pedagogical experiential learning
- 2. Enhancing professional skills
- 3. Improving employability



### Conclusions

- Utilization of telepractice as an instructional pedagogy holds promise for facilitating learning, enhancing professional skills, and improving employability as reported by graduate students
- Respondents unanimously reported the experience facilitated learning course content and provided introductory exposure to telepractice service delivery
- Overall enhancement of entry level professional skills reported as impacting a greater variety of service delivery options (employment environments)
- Telepractice as an instructional pedagogy is reported to improve employability as indicated by perceived marketability



## Conclusions

- The benefits of telepractice in the classroom as a viable instructional pedagogy are strongly indicated from data analyzed in this study
- Initial investigation of this learning tool offers a plethora of opportunities for engaging students in
  - Hands-on learning
  - Improving student-instructor partnerships
  - Inter/intra professional collaboration
  - Acquisition of clinical hours
  - Provision of service to underserved populations



#### Conclusions

Thematic analysis suggests student perspectives on use of telepractice as a graduate level pedagogical tool has merit in academic training for therapeutic implementation, satisfaction and professional application



#### Limitations

- Analysis of data which emerged from a post experience assignment
- Format of the assignment included a limited number of questions and response types
- Student responses based on a single semester experience with one patient diagnosis type (non-fluent aphasia)



#### Future Research

- Imperative, especially as a result of COVID-19 and the necessity to advance the use of telepractice in all service modality areas
- Provides potential for investigating patient populations and diagnoses most applicable to this learning environment
- Opportunity for instructional faculty to observe, measure and establish additional student clinical competencies
- Allows for comparative student performance measures between faculty and preceptors



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