The education background of speech therapists in the care of aphasics: the opinion of students and graduates in Speech Language Pathology and Audiology

A formação de fonoaudiólogos no atendimento de afásicos: a opinião de alunos e egressos da graduação em Fonoaudiologia

La formación de fonoaudiólogos para atender a afásicos: la opinión de alumnos y egresados de la graduación en Fonoaudiología

Aline Raquel Sembaluk[*]
Juliana Marcolino-Galli[*]
Michelly Daiane de Souza Gaspar Cordeiro[*]
Kyrlian Bartira Bortolozzi[*]

Abstract

Introduction: The area of language is a specialty of Speech-Language Pathology, which demands from the professional a definition from the theory point of view about the subject-language relation and its correlation with clinical proceedings. In this context, the treatment of difficulties in speech and/ or writing of aphasic patients imposes specificities on clinical practice and on the training of the language therapist. **Objective:** The purpose of this research is to present and discuss the opinion of the students

* Universidade Estadual do Centro-Oeste, Irati, Parana, Brazil.

of the last grade and egress from the course of Speech-Language Pathology and Audioogy of the Center-West State University (UNICENTRO) in relation to the care of aphasics. The discourse of students and egress on the relation theory and practice, considering the definition and sustentation of a theoretical perspective in therapeutic procedures with aphasics, was analyzed. **Methods:** 21 egress and 19 students from UNICENTRO participated in this research. The analysis was interpretative and descriptive, emphasizing the definition of theoretical perspective, experience to attend the specificity of aphasia and relation between theory and practice. **Results:** There are differences in the responses between students and graduates related to training and praxis. It is assumed that practice during training, coupled with a more homogeneous tendency in the theoretical position on language, strengthen the support of discursiveness. **Conclusion:** The hypothesis is that the labor market calls for change. Therefore, a curricular reform, besides reviewing disciplines, should consider the student and his experiences to subsidize the formation of a professional who can face the challenges of the profession.

Keywords: Speech, Language and Hearing Sciences; Aphasia; Language; Education, higher; Health Human Resource Training.

Resumo

Introdução: A área da linguagem é uma especialidade da Fonoaudiologia que exige do profissional uma formação que o permita assumir um ponto de vista teórico sobre a relação sujeito-linguagem e sua correlação com procedimentos clínicos. Nesse contexto, o tratamento de dificuldades na fala e/ou escrita de pacientes afásicos impõe especificidades à prática clínica e à formação do terapeuta de linguagem. **Objetivo:** O objetivo desta pesquisa é apresentar e discutir a opinião dos alunos da última série e egressos do curso de Fonoaudiologia da Universidade Estadual do Centro-Oeste (UNICENTRO) em relação ao atendimento de afásicos. Analisou-se o discurso dos alunos e egressos sobre a relação teoria e prática, considerando a definição e sustentação de uma perspectiva teórica em procedimentos terapêuticos com afásicos. **Método:** Participaram desta pesquisa 21 egressos e 19 alunos da UNICENTRO. A análise foi interpretativa e descritiva, enfatizando a definição de perspectiva teórica, a experiência para atender a especificidade da afasia e a relação entre teoria e prática. **Resultados:** Notam-se divergências nas respostas entre alunos e egressos relacionadas à formação e à práxis. Assume-se que a prática durante a formação, articulada a uma tendência mais homogênea na posição teórica sobre a linguagem, fortalece a sustentação de uma discursividade. **Conclusão:** A hipótese é de que o mercado de trabalho os convoca às mudanças. E, por isso, uma reforma curricular, além de revisar disciplinas, deve considerar o aluno e suas experiências para subsidiar a formação de um profissional que possa enfrentar os desafios da profissão.

Palavras-chave: Fonoaudiologia; Afasia; Linguagem; Educação superior; Capacitação de Recursos Humanos em Saúde.

Resumen

Introducción: El área del lenguaje es una especialidad de la Fonoaudiología que exige del profesional una formación que le permita asumir un punto de vista teórico sobre la relación sujeto-lenguaje y su correlación con procedimientos clínicos. En este contexto, el tratamiento de dificultades en el habla y/ o escritura de pacientes afásicos impone especificidades a la práctica clínica ya la formación del terapeuta de lenguaje. **Objetivo:** El objetivo de esta investigación es presentar y discutir la opinión de los alumnos de la última serie y egresados del curso de Fonoaudiología de la Universidad Estadual del Centro Oeste (UNICENTRO) en relación a como atender afásicos. Se analizó el discurso de los alumnos y egresados sobre la relación teoría y práctica, considerando la definición y sustentación de una perspectiva teórica en procedimientos terapéuticos con afásicos. **Metodos:** Participaron de esta investigación 21 egresados y 19 alumnos de la UNICENTRO. El análisis fue interpretativo y descriptivo, enfatizando la definición de perspectiva teórica, la experiencia para atender la especificidad de la afasia y la relación entre teoría y práctica. **Resultados:** Se notan divergencias en las respuestas entre alumnos y egresados relacionados con la formación y la praxis. Se asume que la práctica durante la formación, articulada a una tendencia más homogénea en la posición teórica sobre el lenguaje, fortalece la sustentación de una discursividad.

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Conclusión: La hipótesis es que el mercado de trabajo los convoca a cambios. Y, por eso, una reforma curricular, además de revisar disciplinas, debe considerar al alumno y sus experiencias para subsidiar la formación de un profesional que pueda enfrentar los desafíos de la profesión.

Palabras claves: Fonoaudiología; Afasia; Lenguaje; Educación superior; Capacitación de Recursos Humanos en Salud.

Introduction

The beginning of the speech-language pathology and audiology history in Brazil is marked with the rehabilitation of the so-called communication disorders. Thus, the first courses had a highly technical approach and the study and training was focused on corrective techniques[1].

As the speech-language pathology and audiology field began to structure itself as a profession, the need of curricular reforms in the courses was essential. These reforms would transform the training and practice of the speech language pathologists so that they would be able to work in different fields and also, look from a new perspective to old pratices[2].

Due to this historical process and the high incidence of language disorders, the SLPA work with language is still one of the main fields for this professional. A Brazilian study that included 263 SLPAs graduate students from Rio de Janeiro, found that language was the field that most students aimed to work, especially in clinics[3]. Also, speech and language disorders are known to be the greater demand for speech-language therapy in the public services[4,6].

According to the CFFa resolution nº 320, of February 17, 2006, it is one of the SLPA competences to act with neurological communication and language disorders, such as aphasia. Therefore, the present paper focused on the discussion of the study of language in the SLPA courses, regarding the clinical practice of aphasia patients.

Aphasia is widely defined as a language disorder due to brain injury. However, the relationship between brain and language cannot be neutralized and must be dealt with theoretically, considering these two domains as heterogeneous. It is known that standard Medicine, with medical or surgical procedures, may respond for brain function only. So, there is an "open field" for the treatment of "language disorders" [7].

For the SLPA to effectively work with aphasia cases, he must know organic and linguistic aspects that will require a theoretical positioning in the relationship between the brain and language. Hence, the relationship between these domains may be "causality" or "concomitance"[7]. "Causality" is when the linguistic outputs are in accordance with the brain functioning; therefore, the lesion explains the language symptoms. On the other hand, "concomitance" between language and the brain injury, is considered a "linguistic disorder" where the SLPA must consider the patients speech; thus, he will deal with the singularity and heterogeneity of each aphasia patient speech[8,9].

In addition, the SLPA clinical practice focused on the care of "language disorders" requires theoretical approaches from a philosophical, psychological, psychoanalytic and linguistic points of view. These approaches require connection between the conceptions of subject and the human language relationship, which reflects in specific clinical procedures. Considering that the procedures are divergent, the type of study and training that the SLPA student receives will reflect on how the patient will be evaluated and treated.

The SLPA course at *Universidade Estadual do Centro-Oeste* (UNICENTRO) began in 2001 in *Irati, Parana,* Brazil. At the beginning of the course, concepts related to aphasia and language were distributed in different classes and no connection between them was stimulated. In 2012, with a new curriculum, language became a specific field and aphasia a specific class[10].

Considering the peculiarities involved in the language field and in the aphasia clinic, this paper discusses how UNICENTRO's SLPA course, with its different curriculum, could and can favor the aphasia patients' care during and after the students study. However, this discussion also contributes to a wider reflection on the SLPA students' performance and the importance of theoretical perspectives in the clinical practice with aphasia patients.

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The purpose of this research is to present and discuss the opinion of the undergraduate and the egress students of the SLPA course from UNICENTRO considering the care of aphasia patients, with great focus on the relationship between theory and practice. All participants studied at the UNICENTRO SLPA course. To accomplish this goal, the participants' discourse, regarding definition and support of a theoretical perspective, was analyzed, including their experience with therapeutic procedures and outcomes. Furthermore, hypotheses of the curriculum and of the clinical experience influence in the SLPA students training and theoretical study were built; this also broadens the discussion to other SLPA courses.

Method

This is a descriptive and qualitative cross-sectional study. The research counted with 21 SLPAs that had graduated between 2007 and 2015 and 19 senior year undergraduate students, class of 2016. All subjects had more than 18 years old and had already completed their study or were completing their study in SLPA at UNICENTRO.

Data collection began after the approval by the UNICENTRO Ethics Committee under the protocol number 1.657.666 of July 27, 2016, with authorization and provision of the email addresses of the participants by the competent office, the *Pró-Reitoria de Ensino* (PROEN) of UNICENTRO. All participants signed the informed consent form.

Initially, a pilot questionnaire was performed in order to detect any misinterpretation in the questions and to validate the data collection instrument. Six teachers from the UNICENTRO SLPA course answered the online pilot questionnaire created using the Google docs tool, in August 2016. The pilot questionnaire counted with a open comment space were the participants could give their opinions on the instrument, highlighting difficulties, doubts and report the amount of time they took to respond the questions. The teachers should rank each question with a score of 1 to 5, according to the scale: 1 = not valid; 2 = low validity; 3 = valid; 4 = high validity; 5 = totally valid.

Questions 1 to 11 were related to the activities that happened at the UNICENTRO SLP course. It included questions related to the theoretical perspectives that were studied considering the care of aphasia patients during the clinical practice or

extension projects that happened along the SLPA program. Questions 12 to 18 would deal with the difficulty of defining/naming any theoretical perspective, including any difficulty related to the perspective choice, the treatment direction, use of support materials, evaluation procedures, treatment outcomes, theoretical difficulties and practice during the care for aphasia patients.

After the pilot questionnaire application, any issues were addressed and the questions with scores 1 and 2 were reformulated. Also, it was decided that the questionnaires applied to the SLPA egress students would be different from the one applied to the undergraduate SLPA students. This decision was made considering that the undergraduates might not yet had cared for an aphasia patient, therefore, the answers should be based only on theoretical assumptions. On the other hand, the SLPAs, that is, the egress students, could give answers considering their clinical experience. The questionnaires are attached at the end of this paper.

The PROEN and the UNICENTRO board of education authorized and shared the email addresses of the undergraduate and the graduate SLPA students. An invitation email along with the final questionnaire was sent via a Google docs link to all students who had their email addresses registered at the institution. In addition, social network was used to contact other students. Posteriorly, the same email was sent. Before answering the questionnaire, each participant had to agree and sign the informed consent form that was available at the same Google docs link. After being completely answered, the data were automatically sent forward to the researchers on an email address created exclusively for this purpose. Invitations emails were sent until August 30, 2016.

Data collection occurred from September 1 until September 15, 2016. About 70 email invitations were sent and a total of 40 questionnaires were answered. The next step was to analyze the questionnaires outcomes. This analysis included a description and a qualitative interpretation of the answers involving concepts of language and theoretical perspectives clearly present in the clinical practice with aphasia patients.

In addition, to analyze the questionnaires, a documentary research of both SLPA UNICENTRO pedagogical political project curriculums was carried out. The SLPA Department provided the political project. Any knew topics and classes purposed

were compared between the curriculum of 2001 and 2013. The documentary research also included any extension project and the classes' periodicity defined by the SLPA Department leadership in order to complement the analysis on the training of the teachers who would teach language.

Results and discussion

A total of 40 questionnaires were answered: 97.5% by women (39 participants) and 2.5% by men (1 participant); 19 undergraduate students (mean age: 21.4 years old) and 21 graduate SLPAs students (mean age: 26.8 years old).

In order to properly consider the experience and theoretical study of each participant, the results were divided considering the undergraduate student answers and the graduate students answers. First, only the undergraduate students outcomes will be discussed; in order to better understand the results, initially a brief description of the current curriculum will be presented.

The Speech-Language Pathology and Audiology course at UNICENTRO, *Irati* Campus, began in 2001. The Political Pedagogical Project (PPP) establishes as the course mains objective: to educate speech-language pathology and audiology professionals to be capable of working with prevention, habilitation, rehabilitation and improvement of oral and written communication, voice and hearing[11].

The classes' analysis as described in the PPP of 2001[11] shows that the curriculum had classes that would include different fields of Speech-Language Pathology (Audiology, Language, Voice and Hospital) through the four years/grades of study that are commonly held in the Brazilian SLPA programs. Considering the focus of this paper, aphasia, following is presented what classes each year/grade of the SLPA program must have. The first year/grade: class of "*Applied Linguistic Studies*" that would present topics related to language and speech. The second year/grade: classes of "*Neurophysiology of speech and language*", "*Neurology*" and " *Language Disorders I*", these classes would briefly present some language disorders and aphasia. The third year/grade: class of *"Language Disorders II"* that would teach rehabilitation of aphasia patients. The fourth and last year/grade: class of *"Speech and Language Assessment III"* that would teach how to evaluate an aphasia patient. The internships at the school clinic were carried out in the

last two years of the course and had a more general characteristic that is, there was no specific field of work[11]. It is noteworthy that the topics related to aphasia were given in classes that would also teach other topics. The consequence of this approach is a fragmented study of this pathology, with different teachers and diverse theoretical perspectives about the same subject.

In 2013, a new curriculum began with the following objective:

> to educate speech-language pathology and audiology professional to be able to work with: health promotion and disease prevention, language improvement considering oral, written, voice, orofacial myofunctional and collective health issues, with a competent and committed role with the society[10].

The new curriculum had a total of 3,661 hours and each year a total of thirty vacancies, that is, 30 new students were able to enter the course each year. The course has four grades that must be completed within four years at least and a maximum of seven years. The language field presents fundamental concepts about the human and language relationship and discusses various theoretical perspectives, which the students are presented to since the first grade of study; a critical and linguistic enunciative perspective is emphasized, which is very different from the behaviorism and cognitive proposals. In the third grade, the class *"Language and Speech in Neurological Disorders"* discusses the clinical practice with aphasia patients, encompassing its definition and its treatment from different theoretical perspectives. In the last grade, the *"Clinical Practice in Language"* provides the care for patients with language disorders, including aphasia patients[10]. It is important to highlight that, unlike the first PPP, the internships that are offered during the third and fourth grade of the program at the school clinic are now divided in fields (Audiology, Language, Voice and Orofacial myofunctional). There are other internships that take place outside the School Clinic, such as in the fields of Public Health, Education and Hospitals. The current curriculum addresses aphasia in a non-fragmented and deeper matter. In addition, the clinical practice internship in language deepens the theoretical perspectives discussion and their correlations with clinical procedures.

All undergraduates' students who participated in this research (n=19) reported having classes

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about aphasia. The study perspectives they pointed out were: "Language Clinic", for 3 participants; and "All of the above for 16 participants. All of the above included Cognitive Neurolinguistics (CN), Discursive Neurolinguistics (DN) and Language Clinic (LC) perspectives.

The current curriculum teaches aphasia in the class called *"Language and Speech in Neurological Disorders",* as already mentioned. This class studies three theoretical perspectives the CN, DN and LC, as reported by 16 students. It approaches the whole therapeutic process, the definition and diagnosis, as well as the aphasia treatment, constantly bringing key concepts of each theory. Until now this class was only given two times, in 2015 and 2016. It is noteworthy, that in these two years, the class was given by teachers with a LC approach, which may had lead to a greater focus of this perspective and may justify the answers of three students who reported that only LC was taught.

Three undergraduate students reported the conduction of research about aphasia using the LC perspective.

Almost all undergraduate students, 17 participants, did not have contact with aphasia patients in their clinical practice internship. Therefore, they were asked to make assumptions about the clinical procedures and their effects, considering a theoretical perspective. Thus, when asked about the difficulty in defining a theoretical perspective, 17 students answered that they would have difficulty to do so, although they considered important to follow a perspective for the treatment in order to define procedures and measure results. They understand that the approach will guide for decisions, such as which tests to use and how to explore the patient's clinical history. In view of this, the participant 5 said: "*Yes, because all SLPA care should be guided from a theoretical perspective. The ways of seeing and acting with the patient are totally different from one perspective to another*."

The teachers' main approaches and the new curriculum focus may justify the undergraduate students preferences in a more dialogic perspective. According to the analysis of the classes distribution documents, provided by the Speech-Language Pathology and Audiology Department, the class teachers and the internships teachers follow a more dialogical perspective. For example, participant 1 answered: "*Language clinic, due to academic influence*" when questioned about which perceptive

he would use if he had to care for an aphasia patient today.

Considering the question about how they would choose to treat an aphasia patient, including strategies/proposals/activities, no one would follow a more biological perspective. Dialogical perspectives were highlighted, as may be observed in the answer of the participant 1: "*by the possibility of transference, obtaining the best possible outcome for the case, listening to the patient and his family*."

Transference is a term used in the psychoanalysis and was incorporated to the LC perspective. Arantes[9], an affiliated author to this perspective, when addressing the diagnosis, emphasizes that the SLPA must understand the relationship between symptom and demand. Considering this approach, that has great influence from the Psychoanalysis, the patient transfers a "request for help" to the SLPA, who transfers back to the patient a "supposed knowledge", which distinguishes this concept from the conceptions of bonding or interaction[9]. Regarding this same point of view, other authors, such as Marcolino[12], have deepened the reflection about transference in the LC perspective and consider it as essential for the delimitation of the therapeutic environment and treatment direction.

Although this paper affirms that the teacher education and own guideline can influence the students' response, the answers showed little distinction between the LC and DN perspectives. That is, there is a dialogical tendency when studying language, but not a delimitation or difference between these approaches. An example is the participant 3 answer regarding support material: "*various textual genres, from chronicles to music*", which refers to the DN perspective once "textual genres" are mentioned. However, when this same participant is questioned about his difficulties, he comments LC concepts, even though they are not very well understood: *"[...] it is hard to make a **transference** between the therapist and the patient, and also there is a **mourning issue**"*. In that case, transference may be mistakenly linked to bond.

Although the undergraduate students need to deepen their theoretical knowledge, the similarity of the answers draws attention. All students are adherents to a dialogical perspective, referring to concepts such as transference, listening, subject, symptom, interview, subjectivity and singularity. This may be observed in the participant 12 answer

regarding the aphasia patients' evaluation: "*what characterizes the clinical practice is the language* **symptom** *that causes the patient suffering and must be interpreted by the therapist. By* **listening to the patient speaking/writing**, *the therapist can focus on the symptom*" (emphasis added). Interpretation, symptom and listening are key concepts of the LC perspective.

Considering the most frequent terms in the undergraduate students' responses, one may say that most students (16 participants) have more proximity with the LC perspective, especially when describing clinical procedures, such as the participant 17 answer: "*Through changes in the patient speech, writing and also subjective changes*".

Only 3 undergraduate students had clinical experience with aphasia patients. For example the participant 3 answered: "*I was able to care for one specific case of aphasia, the evaluation procedures used writing, also, transcripts of the session were used in order to better analyze what would have most positive effect for the patient, and then begin the therapeutic process*". This kind of answer was not observed for students that had not experienced clinical practice, thus, the clinical practice clearly favored the connection between theory and practice. Another similar example is observed for the participant 12 when answering about the care of aphasia patients:

> always through dialogue, oral or not. In the cases I experienced, we would use an alphabet, images, to better provide a dialogue between the patient and the therapist. Sometimes writing was used as a treatment possibility for a patient who would not speak (Participant 12).

These reports are more specific than reports of undergraduate students with no clinical practice experience that gave superficial and vague answers. Next, is the participant 11 answer, who had no experience with aphasia patients: "*Images, words, numbers, readings, eye-contact, it will depend on the patient's type of aphasia*."

It is noteworthy that, despite the difficulties in connecting theory and practice, the undergraduate students presented several concepts in their answers, although they were not very much explored, which is expected. There is no inconsistency in their answers, which are similar and are in agreement with the new curriculum. Also, all undergraduate students understand the importance and deepening in a certain theoretical perspective when working with language.

The next analysis will be regarding the 21 egress students' responses and the main characteristics of the first curriculum of the SLPA course at UNICENTRO, which they were submitted to. They report having aphasia classes during their study at UNICENTRO; 17 reported studying all theoretical perspectives, 2 reported studying only the LC perspective, 1 only dialogical perspectives and 1 only the CN perspective.

In regard to the aphasia patient care during the undergraduate program, 7 participants cared for at least one patient, 5 in an extension project and 2 in the regular internship. 14 egress students did not care for any aphasia patient during their undergraduate program. With these numbers in mind, it can be observed that the egress students had more chances to experience the clinical practice with aphasia patients than the undergraduate students.

The participants who reported caring for aphasia patients during the internships at the School Clinic stated that the perspectives used were LC (1) and DN (1). The clinical practice in the previous curriculum happened at the third year/grade, with focus on the evaluation, and at the fourth year/grade, with focus on the therapy. Teachers with different backgrounds and experience (voice, language and orofacial myofunctional) would supervise this clinical practice.

The egress students who reported caring for aphasia patients only on extension projects mentioned the use of the LC perspective. According to the project's final report, from 2006 until now, aphasia teaching uses the LC perspective. It is noteworthy that since 2006, the teacher who coordinates this project follows this theoretical perspective.

Two egress students reported developing a Project about aphasia. One of them followed the LC perspective while the other one followed the DN perspective.

Most of the participants reported difficulties in naming/defining a theoretical perspective, 13/21; only 8 said they had no difficulties.

Due to the diversity of the egress students responses, their discourse were categorized as:

a. **category 1**: Seven participants who named or defined a theoretical perspective that guide their performance. (This category included graduate students who connected theory and practice; who defined a theoretical perspective,

but did not connect theory and practice, and those who named a theoretical perspective, but showed incompatibilities when describing the clinical procedures and outcomes);

b. **category 2**: Six participants who did not indicate any theoretical perspective but, due to the use of specific terminologies a tendency for one or more perspectives was observed;

c. **category 3**: Eight participants that worked in others SLPA fields and with no experience with language who chose not to answer specific questions about the care for aphasia patients.

Considering category 1, the participants 1 and 15 inferred connection between theory and practice and clarified theoretical aspects:

> "The proposals were based on writing support, aiming the association of speech/reading/writing. The main premise was Dialogue, personal reports were also used as a therapeutic strategy "(Participant 1, 27 years old, works at UNICENTRO as an associate professor, finished his undergraduate program in 2010 and works with language).

Participant 1 reported to care for aphasia patients according to the LC perspective.

> "There is no homogeneous procedure, it must be decided according to each case. But the premise is *to give a chance and voice to the aphasia patient, and dialogue* is a primordial tool. I believe it is important to respond to the effects of the patient's speech as well as to their new relationship/position with language after aphasia. **The evaluation should guide the therapeutic direction for each case. The singularity of each case will guide for the evaluation procedures** " (Participant 1, emphasis added)

The presence of a dialogical perspective is observed in this participant answers, in accordance with Fonseca[7] that propose to " give a chance and voice to the aphasia patient " and the singularity of this clinical practice. In the LC perspective, it is stated that the singularity does not refer only to the treatment direction for each case, but also to the clinician perception, which must be in accordance to the speech of the aphasia patient[12].

The answers of the participant 15 indicated a preference for the DN perspective:

> "During the sessions after the investigation of the patient "points of interest" as well as any relevant **life history** aspects, I prepare support materials such as: photos; figures; concrete materials; alphabet; **different types of texts** (*music lyrics*, proverbs, poems, informative texts); I use PowerPoint (program to create/edit and display presentations with graphics) to show images and videos, aiming interaction in **all language modalities**"(Participant 15, 28 years old, finished his undergraduate program in 2010, works with language disorders at a public service at the state of Paraná, emphasis added).

The importance of forming a bond between the therapist and the patient are emphasized on the DN perspective in order to achieve more effective discursive practices. According to this perspective, the therapist needs to value any possibility that the aphasia patient has after his brain injury seeking an effective linguistic interaction[14].

The participants 1 and 15 have a master degree and are currently working in the language field. It is possible to observe the differences in supporting certain perspective when there is an experience and additional study in the field; the answers in these cases have more exemplification and say more about praxis.

The participants 4 and 12 defined a theoretical perspective but they did not connect theory and practice; therefore their discourse was also classified as category 1. When the participant 4 describes his clinical practice, he uses elements of the DN perspective as we may see next:

> "I have changed the way I work with aphasia. I deepen my study in *neuroscience*; thus, I now *search for tools* in order to give a better treatment for my patients. The therapy is guided by the evaluation. Exercises to work orofacial praxis, articulation, sound, word and text production are used in different strategies. The ways each person will process these information are variable. "This perspective can be observed on the evaluation: "Language Evaluation: comprehension, expression, reading, writing and verbal memory. Posture, mobility, stomatognathic system strength, vocal aspects" (Participant 4).

It is noteworthy that this participant highlights he changed his way of caring for the aphasia patient. That is, he did not follow the perspective he was taught during the undergraduate program, and due to the experience he began to have, he decided to work with a neuroscience perspective.

In the CN approach, the SLPAs evaluation aims to identify the patients' communication after having a brain injury[15]. Therefore, these tests:

> Evaluate the phonological, morphological, syntactic and semantic aspects that are present in the processes of language comprehension (word discrimination, commands, and text interpretation) and language production (naming, repetition of words and phrases, text production). They take into account the effects related to the modalities of stimuli input and answer output and also those task-specific, in order to control linguistic and non-linguistic variables[16].

One of the CN perspective proposals is to re-establish the injured brain connections by stimulating the patient to use his remaining abilities. The hearing and visual stimulations are essential for a better recovery of the oral and written language comprehension.

Still considering the category 1, participants 9, 13 and 16, named a theoretical perspective, but showed incompatibilities when describing the clinical procedures and outcomes. With reference to naming a theoretical perspective, the participant 9 claimed: "*it is easier for me to use the Language Clinic approach, once this was the approach I used to care for a patient on the neurology project I was part of and I know it has good outcomes*". However, when he mentioned the procedures used for the evaluation he reported: "*at the Language Clinic, we begin with an interview, with no pre-defined script like in a behavioral approach. Next, dysarthria and apraxia test are performed. We also observe if there are any jargon in the speech, if the patient has any reading and writing disorders. If the patient can name images, objects and sing songs. Also, we have to see the patient suffering, and if it demands specific treatment. It is also important to observe the patient dialogue with his family. These are some examples of things that must be observed in the evaluation*" (emphasis added).

The participant reported the use of tests in the patient evaluation, which brings doubts about the theoretical perspective. In addition, the participant performs an evaluation by selecting signs, such as presence of jargon and naming, more consistent with the CN perspective. Marcolino[12], a LC researcher focused on aphasia, criticizes the selection of symptoms, especially the categorization (as jargon, neologisms), because it leads to the loss of the symptom singularity.

The category 2 included 6 participants who did not indicate any theoretical perspective but due to the use of specific terminologies, a tendency for one or more perspectives was observed. The answer of the participant 11 shows he prefers to use the LC perspective: "*I like to work considering the patient speech, but, I lack a theoretical approach for a more subjective analysis, like an anchorage in a perspective such as the Language Clinic*". When writing about the procedures used for the aphasia evaluation, this same participant brings out concepts of the DN perspective: "*By the patients' language and expressiveness improvement in **speaking and enunciate situations**. I never used any scales, scores or tests*".

The term enunciation is very common on the DN perspective. Coudry[13], a pioneer researcher on DN, recommends a theory of enunciative-discursive language, in which "what matters is the enunciation to others, considering that unexpected eventualities, common to the language social use, will occur, also language will be exposed in a discursive way, as a significant activity, structured by observer factors or by factors related to cultural anthropology"[13].

Participant 2 also mix terms of different perspectives, but does not mention anyone of them: "*I believe the aphasia type and the possibility of the patient improvement must be considered before analyzing the outcomes, which are observed continuously and taking into account the patient's and his family considerations about his improvement or lack of improvement*".

The mix of the perspectives reported by some participants may be related to their workplace. According to the institution objectives and former professionals, one or another perspective might be focused, thus, new professionals must adapt to it, and it might be hard to use others approaches.

One example is the participant 13 answer: "*sometimes I find myself asking for some exercise referring to a biological perspective, in other moments, I don't ask for nothing, and I just let the patient speak as he wishes, what refers to the Language Clinic perspective, and sometimes, I use support material and everything happens through dialogue*" (Participant 13, finished his undergraduate program 1 year ago, works in a private clinic with a multidisciplinary team).

The participant 4 is similar when he refers to his experience during the SLP course and his clinical experience:

"When I began my clinical practice I tried to use a more discursive approach. However, throughout the patients' treatment, I realized that it was not possible to follow a single theoretical perspective. In fact, you use elements from different perspectives and build your own way of working, analyzing and thinking in a clinical matter. **The decision of "which perspective to follow" is more a university issue. In the books, everything is amazing. Considering my experience working in a public service, it is in the daily clinical practice where you will face big challenges.** The best approach is the one that will benefit our patient and bring better outcomes for that specific case"(Participant 4, emphasis added).

It is noteworthy that for the participant 4, what was taught in the undergraduate program delimited and clarified the importance of a theoretical perspective as a guide, but, due to the challenges faced on his clinical practice, he leaves aside this way of thinking, increasing the gap between theory and practice.

The SLPA must necessarily define a theoretical perspective for the care of an aphasia patient. The definition will guide the therapist's decisions; language, diagnosis and clinical procedures will provide a better condition on the relationship between pathology and language therapy[17].

The category 3 includes eight participants: 3, 5, 6, 7, 8, 10, 14 and 20. These participants began working on other SLPA fields with poor experience with language, which makes the choice of a theoretical perspective, evaluation and treatment procedures more difficult. Thus, they chose not to answer the questions regarding clinical practice and outcomes since they were working in other fields (voice and audiology).

Of all egress students, only one took a language specialization course focused on the care of the aphasia patient, what was observed in his answers. This participant could better define a theoretical perspective and better connect theory and practice.

Thus, the requirement of practice during the undergraduate program with a more homogeneous approach regarding the human language relationship strengthens the discursiveness that guarantees praxis.

It is noteworthy that, even though the professionals had an experience with patients with language disorders, only three SLPAs took a language specialization course. Moreover, the group of graduate student presented more diversity and theoretical inconsistencies in their answers. Our hypothesis is that their different kinds of work called for changes and, especially, the way that aphasia was taught in the UNICENTRO SLPA course, that is, spread throughout other classes, does not seem to favor a deepening on a theoretical discussion focused on clinical practice issues. Faced with the challenge of the real life clinical practice, the theory "stays in the university" and the SLP often allows himself to work considering and mixing many approaches and techniques, which will negatively effect the treatment. It seems that the curricular reform provided a more homogeneous discourse and could better characterize the SLPA course at UNICENTRO.

The 55 years old SLPA course from PUC-SP University had several curricular changes. Some of them are described at the scientific journal *Distúrbios da Comunicação;* the 1996 curricular reform aimed to*:*

meet the professional demands and scientific needs, with the main objective to redirect their study, assuming the clinical therapeutic approach as main focus[18].

After 1996, the SLP courses aimed on a clinical-therapeutic approach, on the need of professionals with "modern and strong scientific training, technical competence, and ethical posture, with a wide point of view on language and hearing, with emphasis on several pathological processes "[18]. That is, there is a concern with a wide-ranging study of language, without simplifications that are common in this field. The combination between theory and practice was also emphasized with the practical disciplines and clinical supervision, thus, SLPA practice as a therapist is emphasized.

Curricular changes require "planning, action and reflection" and it involves changes that do not happen in a linear and immediate way. In addition, the monitoring and evaluation of the new curriculum implementation are fundamental in order to analyze if the objectives and the principles are being followed, if the didactic and administrative resources are effective and sufficient to guarantee

that the students' achieves what was expected considering the pedagogical project [19].

With this in mind, the present paper cannot affirm that the homogenous discourse of the undergraduate students will still happen when they begin their clinical practice and daily work. This is because the new curriculum requires monitoring mechanisms along the process[19].

Thus, the curriculum of the SLPA course at UNICENTRO is still based on a certain hierarchy of the class topics and the clinical practice happens only in the last two grades. This is observed in other courses in Brazil. The clinical practice activities occur on the end of the course, therefore, it seems that all theoretical knowledge must be acquired before being applied[2]. This hegemonic model prepares the clinician to work in hospitals and clinics, mainly after the second grade of the program has been completed. In order to favor humanized formation with the community, it would be somewhat important to organize the curriculum of the professionals in order to connect theory and practice from the beginning of the undergraduate course, which could also favor a humanized care[20].

Conclusion

From the students' point of view this paper was able to show that a dialogical theoretical perspective characterizes the language study at UNICENTRO SLPA course. A perspective that is very different from the psychological behaviorism proposals. Dialogue is the treatment method in the Language Clinic practice.

The students who since 2013 are attending the current, and therefore, reformulated curriculum, presented more homogeneous answers. With more corresponding responses, they considered important to keep on with the same theoretical discursiveness in order to choose the most appropriate clinical procedures. Regarding the care of aphasia patients, UNICENTRO does not provide much clinical practice experience for their students; an alarming information considering the specificity of this pathology. However, even though inexperienced, the students were able to imagine a practice according to their study.

When there is a supervised experience for the undergraduate students in the clinical practice with the aphasia patients, the opinion of the students and the SLPAs were more consistent and in agreement with the concepts.

The fragmentation of language and aphasia concepts in the first curriculum seems to have weakened the theoretical-practical deepening on the demands and challenges of the clinical practice. The theoretical support for the clinical practice was only observed in the SLPAs who had undergone a post-graduate course.

As expected, the curriculum reform can not only focus to review classes and topics, but also must focus on a pedagogical work aiming to prepare the students to the challenges and to solving problems in their clinical practice as professionals[2]. However, future research on the experience influence and coping strategies with SLPAs who had attended to classes with the new curriculum at UNICENTRO will endorse our hypothesis. At this point, we agree with the authors[18] when discussing the curricular reform in PUC-SP University: to monitor and to evaluate the new curriculum is essential to analyze if the initial principles of the project were maintained during the reform.

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Aline Raquel Sembaluk, Juliana Marcolino-Galli, Michelly Daiane de Souza Gaspar Cordeiro, Kyrlian Bartira Bortolozzi

Annexes

DATA COLLECTION QUESTIONNAIRE (GRADUATE STUDENTS)

1. Name:
2. Date of Birth:
3. Sex: ( ) female   ( ) male
4. In which year did you complete your undergraduate SLP program at UNICENTRO? If you are still an undergraduate student please mark the year you will graduate.
  ( ) 2007
  ( ) 2008
  ( ) 2009
  ( ) 2010
  ( ) 2011
  ( ) 2012
  ( ) 2013
  ( ) 2014
  ( ) 2015
  ( ) 2016
5. Did you attend to classes about Aphasia during your undergraduate program?
  ( ) Yes
  ( ) No
6. Which perspective or perspectives were studied in the classes about aphasia?
  ( ) Psycholinguistics
  ( ) Neurolinguistics
  ( ) Discursive Neurolinguistics
  ( ) Language Clinic
  ( ) Only biological perspectives
  ( ) Only dialogical perspectives
  ( ) All of the above
7. During your undergraduate program did you care for any aphasia patient?
  ( ) Yes
  ( ) No
8. During your undergraduate program, did you care for an aphasia patient in any Project you were part of?
  ( ) Yes   ( ) No
9. During your undergraduate program, did you perform any research regarding the aphasia patient? If so, which theoretical perspective you used and what is the title of you Project?
  ( ) Yes _____
  ( ) No
10. Did you care for aphasia patient in the internship of the School Clinic?
  ( ) Yes   ( ) No
11. If you answered "yes" to the last questions, what theoretical perspective you followed?
  ( ) Psycholinguistics
  ( ) Neurolinguistics
  ( ) Discursive Neurolinguistics
  ( ) Language Clinic
  ( ) Only biological perspectives
  ( ) Only dialogical perspectives
  ( ) All of the above
  ( ) I did not care for aphasia patients
12. Do you have difficulties to define a theoretical perspective for the care of aphasia patients? If yes, why?
13. In a general matter, for the care of these patients, what kinds of strategies/proposals/activities you use?
14. Do you use support materials in the session with aphasia patients? If yes, which ones?
15. What are the procedures you use for the language evaluation of aphasia?
16. How do you measure the outcomes of the treatment for the aphasia patients?
17. What are the main clinical practice difficulties in the aphasia patients' treatment?
18. What are the main theoretical difficulties in the aphasia patients' treatment?
19. After your undergraduate program, did you apply for any course regarding aphasia? Which one?
  ( ) Yes _____
  ( ) No
20. Did you take a language specialization course?
  ( ) Yes
  ( ) No

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ARTICLES

DATA COLLECTION QUESTIONNAIRE (UNDERGRADUATE STUDENTS)

1. Name:
2. Date of Birth:
3. Sex: ( ) female   ( ) male
4. In which year did you complete your undergraduate SLP program at UNICENTRO? If you are still an undergraduate student please mark the year you will graduate.
   ( ) 2007
   ( ) 2008
   ( ) 2009
   ( ) 2010
   ( ) 2011
   ( ) 2012
   ( ) 2013
   ( ) 2014
   ( ) 2015
   ( ) 2016
5. Did you attend to classes about Aphasia during your undergraduate program?
   ( ) Yes
   ( ) No
6. Which perspective or perspectives were studied in the classes about aphasia?
   ( ) Psycholinguistics
   ( ) Neurolinguistics
   ( ) Discursive Neurolinguistics
   ( ) Language Clinic
   ( ) Only biological perspectives
   ( ) Only dialogical perspectives
   ( ) All of the above
7. During your undergraduate program did you care for any aphasia patient?
   ( ) Yes
   ( ) No
8. During your undergraduate program, did you care for an aphasia patient in any Project you were part of?
   ( ) Yes   ( ) No
9. During your undergraduate program, did you perform any research regarding the aphasia patient? If so, which theoretical perspective you used and what is the title of you Project?
   ( ) Yes _____
   ( ) No
10. Did you care for aphasia patient in the internship of the School Clinic?
    ( ) Yes   ( ) No
11. If you answered "yes" to the last questions, what theoretical perspective you followed?
    ( ) Psycholinguistics
    ( ) Neurolinguistics
    ( ) Discursive Neurolinguistics
    ( ) Language Clinic
    ( ) Only biological perspectives
    ( ) Only dialogical perspectives
    ( ) All of the above
    ( ) I did not care for aphasia patients
12. If you were to care for an aphasia patient today, would you follow a theoretical perspective? If yes, why?
13. In a general matter, what kinds of strategies/proposals/activities you would use?
14. Would you use support materials in the sessions with aphasia patients? If yes, which ones?
15. What would be the procedures you would use for the language evaluation of aphasia?
16. How would you measure the outcomes of the treatment for the aphasia patients?
17. What you believe to be the main clinical practice difficulties in the aphasia patients' treatment?
18. What you believe to be the main theoretical difficulties in the aphasia patients' treatment?