



# Clinical case study in speech-language pathology research: from clinical setting to theoretical formulations

## Estudo de caso clínico na pesquisa fonoaudiológica: da cena clínica às formulações teóricas

## Estudio de caso clínico en la investigación fonoaudiológica: de la escena clínica a las formulaciones teóricas

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### Abstract

In this paper, the clinical case study is discussed as a method of investigation. The conceptualizations and differentiations between case study and clinical case study are presented, as well as those of single and multiple clinical case studies, clinical case studies on diseases and unique subjects, and analytical and statistical generalizations. Then, a set of theoretical and methodological parameters is proposed for

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clinical case studies in the field of Speech-Language Pathology. We conclude that, although this procedure is not as traditional as in other clinical fields (psychoanalysis, psychology and nursing), their publication in qualified Speech-Language Pathology journals have shown they deserve prestige.

**Keywords:** *case studies; speech, language and hearing sciences; language; methodology.*

### Resumo

*Esse estudo tematiza o estudo de caso clínico como procedimento de pesquisa. São apresentadas as conceituações e diferenciações entre estudo de caso e estudo de caso clínico; estudo de caso clínico único e de múltiplos; estudos de casos clínicos sobre patologias e sobre sujeitos singulares e generalizações estatísticas e analíticas. A seguir, são propostos parâmetros teórico-metodológicos para a realização de estudos de casos clínicos em Fonoaudiologia. Conclui-se que embora esse procedimento não goze de tradição, como em outros campos clínicos (psicanálise, psicologia e enfermagem), vem demonstrando que merece prestígio, como ilustram as publicações em periódicos fonoaudiológicos qualificados.*

**Palavras-chave:** *estudos de casos; fonoaudiologia; linguagem; metodologia.*

### Resumen

*En este trabajo se aborda el Estudio de Caso Clínico como procedimiento de investigación. Se presentan las conceptualizaciones y diferenciaciones entre el Estudio de Caso y Estudio de Caso Clínico; Estudio de Caso Clínico Único y Múltiple; Estudio de Caso Clínico de Patología y sobre temas singulares y generalizaciones estadísticas. A continuación se proponen parámetros teórico-metodológicos para la realización de Estudios de Caso Clínico en Fonoaudiología. Se concluye que si bien este procedimiento no disfruta de tradición, como en otros campos clínicos (psicoanálisis, psicología y enfermería), se ha demostrado que merece prestigio, como ilustran las publicaciones en periódicos fonoaudiológicos cualificados.*

**Palabras clave:** *estudios de casos; fonoaudiología; lenguaje; metodología.*

### INTRODUCTION

It has become commonplace in the polarized scientific debate between quantitative and qualitative research methods to refer to case studies as a kind of “poor relation” among them. In the words of Yin<sup>1</sup>:11, “researchers that conduct case studies are seen as having been diverted from their academic disciplines, and their investigations, as lacking precision (that is, quantification), objectivity, and accuracy”. However, continues the author, a paradox is established in that, although it is the

subject of stereotypical criticisms of this nature, the procedure remains largely used, particularly in Social Sciences, in which it is one of five research strategies, namely: experiments, surveys, file analyses, historical research, and case studies<sup>1</sup>. Case studies are adequate to research aiming to understand individual, organizational, social, and political phenomena.

However, this notion of case study, developed in the classic manuscript from Yin<sup>1</sup>, does not apply focally to the theme of this study, that is, to

the clinical case study<sup>2,3</sup>, particularly in Speech-Language Pathology research, specifically those related to language disorders.

Therefore, it should be noted that considering the clinical aspect of the case study places Speech-Language Pathology in the field of “clinical human sciences”<sup>4</sup>, regarding both practice and research. Within this context, there is a need to reflect on the theoretical and methodological implications that arise from this point of view, especially, among them, for the conceptions of language functioning and disorders assumed by the speech-language pathologist during the production of scientific knowledge in the area.

Thus, the aim of this study was to perform this verticalization, using four analysis axes: the differentiation between case study and clinical case study, the peculiarities of single and multiple clinical case studies, the distinction between clinical case studies on diseases and unique subjects, and the statistical versus analytical generalizations. Based on these analyses, we proceeded to suggest theoretical and methodological parameters that are essential for clinical case studies in the area of Speech-Language Pathology.

### **I. Case studies and clinical case studies**

The case study is a research strategy that allows the investigation of real life events, particularly those regarding contemporary occurrences, preserving the unique character of the object studied. It meets the research questions “how” and “why”<sup>1</sup>. Examples: studies about individual life cycles, changes in urban regions, public health policies, etc.

The clinical case study, on the other hand, refers to a specific cut within this context: it describes and interprets the clinical material regarding the own uniqueness of the individuals who require the intervention of health professionals. To answer the questions “how” and “why”, this type of study rely on clinical observation, as well as in other sources (medical files, results of tests and exams, socio-cultural factors, anamneses and/or clinical interviews)<sup>4</sup>.

Hence, using this procedure, the researcher systematizes the clinical material based on several sources and, simultaneously, plays the roles of scientist, therapist, subject, and observer<sup>5</sup>. The recorded and analyzed data constitute the basis for

interpretation that may confirm or refute existing theories<sup>6,7</sup>.

### **II. Clinical studies of single and multiple cases**

In clinical research, the single case study is an adequate option when it is emblematic, rare, or revealing. Each of these characteristics allow, respectively, to test and/or modify a theory, document a pathological condition, and to scientifically analyze unexplored phenomena.

The same research may comprise several single cases, configuring a clinical study of multiple cases. Sampling is not the issue here, but the possibility of replication of similar or contrasting results, saved the unique peculiarities of each case.

### **III. Clinical case studies on diseases and unique subjects**

In order to analyze this aspect, it is necessary to retrieve considerations previously mentioned in items I and II: the clinical case study has the aim to describe/interpret individual manifestations, and not the incidence of pathological categories.

Thus, the purpose to use this procedure in research in the field of Speech-Language Pathology is different from that traditionally used in Medicine, or even in other health sciences derived from it.

Therefore, we suggest that the researcher goes beyond the exposition of the pathological conditions, investigating the ways that the subject “feels, perceives, gives meaning, represents, and guides his life during the therapeutic process”<sup>8:428</sup> as well.

### **IV. Statistical versus analytical generalizations**

Among the critics – or even “traditional prejudice”<sup>1:28</sup> – regarding the case study is the question of whether this procedure allows the establishment of scientific generalization. In this sense, the arguments of the author are precise: “case studies, like experiments, are generalizable to theoretical propositions, and not to populations or universes. Thus, the case study does not represent a ‘sampling’, and the aim of the researcher is to expand and generalize theories (analytical generalization), and not to enumerate frequencies (statistical generalization)”.

### **V. Theoretical and methodological parameters to conduct clinical case studies in Speech-Language**

## Pathology research

Our considerations allow the establishment of parameters to guide the option of the researcher in the field of Speech-Language Pathology for the clinical case study procedure. To this end, the following assumptions are needed:

1. the nature of case study and clinical case studies are convergent, but the latest emphasizes, specifically, the phenomena inherent to the field of human health, regarding their individual manifestations.

2. the use of one or several clinical cases depends on the purpose of the study, highlighting the fact that both procedures do not have the aim to evaluate the incidence of pathological categories.

3. unlike in Medicine, where the purpose is to describe and follow up the evolution of diseases, in Speech-Language Pathology it is suggested a biographical approach, relating the onset and the evolution of symptoms with singular life stories.

4. when the method chosen for a research is the case study, the researcher must assume that nothing will be proved, but rather described, investigated, illustrated, and suggested, based on strict theoretical parameters that allow analytical – and not statistical – generalizations.

These assumptions must base the feasibility of methodological procedures that allow the analysis of the following aspects:

1. Who is (are) the subject(s)? Detailed characterization of the subject(s) studied: age, gender, current complaints, history of the symptoms, chronology of the previous tests and clinical exams, sociocultural factors (including family dynamics), and other significant elements of the patient's (or his caregiver's) discourse, as obtained in open interviews.

2. What are the most relevant evidences, regarding the aim of the study? These elements must be selected, systematically recorded (in words or through audiovisual resources), and connected, interpretatively, along the therapeutic process.

3. How can the clinical experience(s) be articulated with the theories? That is, does it strengthen, refute, aggregate or produce new scientific knowledge?

4. What are the clinical consequences of the research? That is, what alternative treatment options does the study indicate?

These parameters are commonly used in the study of subjects with any symptoms that require Speech-Language Pathology intervention. However, specifically regarding language

disorders, it is important to emphasize that the option for the clinical case study procedure presupposes the option for a not formalistic concept of language, that is, the concept of language as the maximum manifestation of the individual subjectivity. This position necessarily implicates that language disorders must be clinically understood in a singular perspective, rather than in a universalizing perspective, typical of quantitative research, which – it must be emphasized – bring essential contributions to the field of Speech-Language Pathology.

## FINAL CONSIDERATIONS

The results of research in the field of Speech-Language Pathology conducted using case study procedures allow scientifically consistent analytical generalizations, when conducted with strict theoretical and methodological parameters. Although this type of study is not traditional, as in other clinical fields (Psychoanalysis, Psychology, and, more recently, Nursing), its publication in Speech-Language Pathology journals has shown it deserves prestige.

In opposition to a “magic wand stroke” or a mere persuasion exercise, these results produce detailed/deep knowledge about a particular object, playing a role of contemporary relevance: the transit between clinical practice and research. Or, in the words of Nasio<sup>2</sup>:14: “the clinical case study has the irresistible power of clinical history to attract the imaginary being of the reader and to subtly conduct him, almost without him knowing, to discover a concept and to elaborate others”.

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