Case study and its finalities for the speech and language clinic

O estudo de caso e suas finalidades para a clínica fonoaudiológica

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ABSTRACT

Purpose: to identify and analyze the characteristics of academic research under the rubric Case Report.

Methods: we conducted an empirical-analytic research of papers published in Speech and Language magazines - DIC, CEFAC, CODAS and ACR, the years 2009-2013, a total of 151 papers.

Results: a) a certain predilection for the single case studies but a clear tendency to study up to five cases compared to studies with larger numbers of subjects; b) regularity in one of the magazines, of the number of case reports published over the study period; progression in another and decrease in the other two; c) an hegemony of studies with children compared to other age groups; (e) balance between the number of case reports discussing diagnostic and those discussing intervention; (f) case reports that focused clinical procedures, those in which the diagnosis and therapeutic or intervention are associated occur in fewer.

Conclusion: although the case report has constant presence in the analyzed publications, its importance to clinical reasoning is still quite underestimated.

Keywords: Speech, Language and Hearing Sciences; Case Studies; Case Reports; Referral and Consultation

RESUMO

Objetivo: identificar e analisar as características da produção acadêmica sob a rubrica Relato de Caso.

Métodos: realizou-se uma pesquisa empírico-analítica dos trabalhos publicados nas revistas de Fonoaudiologia – DIC, CEFAC, CODAS e ACR, dos anos de 2009 a 2014, perfazendo um total de 151 trabalhos.

Resultados: (a) uma certa predileção pelos estudos de caso único mas uma tendência clara de estudar até cinco casos em relação aos estudos com maior número de sujeitos; (b) regularidade, em umas das revistas, no número de relatos de casos publicados ao longo do período estudado; progressão em outra e decréscimo nas outras duas; (c) uma hegemonia de artigos no campo da linguagem quando se cruza número de publicações e especialidade da Fonoaudiologia; (d) uma hegemonia de estudos com crianças em relação às outras faixas etárias; (e) equilíbrio entre o número de relatos de casos que discutem diagnóstico e os que discutem intervenção; (f) os relatos de caso cujo foco são os procedimentos clínicos, aqueles em que o diagnóstico e a terapêutica ou intervenção estão associados, ocorrem em menor número. Observou-se a necessidade de analisar criticamente este achado, dado que a Fonoaudiologia, como disciplina clínica, deveria evitar a separação entre terapêutica e diagnóstico. A clínica é uma estrutura e como tal, tem seus elementos componentes em articulação constante para que o sentido da intervenção possa ser identificado, descrito e explicado.

Conclusão: embora o relato de caso tenha presença constante nas publicações analisadas, sua importância para o raciocínio clínico ainda é bastante subestimada.
INTRODUCTION

To substantiate this article whose theme is the purpose of the case study’s publication in the Phonoaudiology field, we initially chose to research in other clinical practices the role of this modality of research and its structure.

The case study originates from the medical and psychological fields, proposing a detailed analysis of an individual case that would explain the dynamics and pathology of a given disease. It is through the case study that we discover and find new ideas that allow intellectual progress, show new problems and solutions, and contribute to the advancement of medicine. The case study is key in discovering new diseases, treatments, unexpected effects, and side effects, and for teaching.

The rules of scientific journals in the medical field determine that the communication of a case report is relevant especially when the diagnosed entity is rare, the treatment is pioneering, or the result unusual. If the case report brings the contributions already mentioned, such as exploration of new processes or diseases, through discovery and a different look on the ordinary, it also has limitations as a research strategy. Among them would be the difficulty of generalizing the obtained results, the risk of the researcher presenting a false certainty of conclusions for being deeply involved in the investigation and relying too closely on false evidence.

In Nursing, we find another definition and implementation of guided research in case study. In this field, it is also defined as the study of informal cases. These are studies applied in direct nursing care, in order to conduct a thorough study of the patient’s problems and needs, family and community, providing subsidies to seek the most effective strategy to solve problems. Another perspective of this research method is to give a solid base for the nursing actions, provide individual care where the patient is seen as unique and not as a set of signs and symptoms. It also makes a link with the scientific literature that will support the actions of the nursing staff.

Regardless of the branch of activity, structured research in the case study arises from the desire to understand complex social phenomena, allowing researchers to focus on a case and to have a holistic, real-world perception. In Psychology, most experts argue that an in-depth analysis of the subject and the concern for the whole person are the main features of a case study, suggesting that it stands out not only as an important resource for the execution of scientific research but also for the development of practices.

The intensive exploration of a single case may enable the acquisition of new knowledge, which currently also makes this research methodology one of the main types of qualitative research in Human and Social Sciences. Researchers who use this investigation tool will obtain a qualitative approach with an original product based on the nature, history, and context of each case.

We can also define case study as the report of a unique experience, written by a therapist to attest his meeting with a patient and endorse a theoretical progress. Whether it is the description of a session, the development of a clinical story or the presentation of the life and symptoms of a patient, a case study is always a written text to be read and discussed. It is a text, which, through its narrative style, brings into play a clinical situation that, illustrates a theoretical elaboration. The case study’s objective is to not only discuss or illustrate a theoretical elaboration but also clarify the work of speech therapy. In this field, some authors suggest that the case study relates to theory, the formation and evolution of symptoms with stories of individual lives. The authors point out that it is a research option that allows researchers to take language as the ultimate expression of individual subjectivity. They emphasize that, to be understood, language disorders need to be seen in clinical practice in a unique way, unlike what happens in the quantitative research that generalizes data.

A case study has three functions: a didactic function, a metaphoric function and a heuristic function. The didactic value of a case study is in the power of the clinical history to capture the imagination of the listener/reader and lead him subtly without noticing, to discover a concept and develop others. The metaphorical function occurs when the clinical observation and the concept that it illustrates are so closely intertwined, that observation replaces the concept and becomes a metaphor. The heuristic function of a case study occurs when the case itself becomes a generator of concepts. Finally, it is noteworthy that despite the identified functions, the report of a clinical session is never a true reflection of a fact, but its fictional reconstitution. The example is never a pure event, but always a reformulated history. This happens because the case is recollected through the filter of the audiologist’s experience and readjusted according to the theory that he needs to validate.
From these definitions and taking them as support of our analysis, the aim of this paper is to identify and analyze the characteristics of academic production under the heading Case Report.

METHODS

To achieve the proposed goal we made a bibliographic survey of publications on the theme, identified as case report, in the past five years, i.e., from 2009 to 2014, in the main Brazilian journals in the field of Phonoaudiology, namely: ACR (Audiology – Communication Research), CoDAS (formerly Journal of the Brazilian Phonoaudiology Society), CEFAC Journal (Speech, Language and Hearing Sciences and Education Journal) and DIC Journal (Communication Disorders). The ACR Journal, in the Instructions to Authors section, defines case report: “it describes unpublished, unusual or innovative cases or experiences which represent originality of conduct or treatment and illustrate infrequent situations with unique characteristics of interest for professional practice, describing its aspects, history, behaviors and observed results.”9 The CEFAC Journal says that a case study “reports rare or uncommon cases, particularly interesting or that bring new knowledge and treatment techniques or considerations. They must be original and unpublished”10. CoDAS Journal defines case study reports as “articles/papers presenting unique, unusual or innovative cases or experiences with up to ten subjects (or cases), unique characteristics of interest to the professional practice, describing their aspects, history, behavior and observed results”11. One can observe that the definitions of case report are similar and do not clash.

The DIC Journal12 does not have a section dedicated just to the reports of clinical cases so that they can be presented as original articles or other types of publication. In the case of this journal, our research used the keywords: case presentation, case report and case study.

The cited journals do not report any criteria on the percentage of research for each type or article or even for each journal issue. There are some journal editions where case report does not appear, but we did not find that other types of publication (original articles, communications, reviews, abstract of thesis and dissertations, and so on) occurred.

When reading the abstracts of articles published from 2009 to 2014 in major Brazilian journals of Speech Therapy and Audiology, under the heading Case Report, we identified the need to critically review the place of this research modality in the scientific field, as well as the quality of production, its general characteristics, and carry out a statistical survey, that is, a quantitative analysis.

Starting from the principle that the assessment of current scientific production helps to outline methodological trends, themes and the evolution of knowledge of the area, this study may contribute to the construction of new perspectives in the production of knowledge.

The first step of our research was to read the abstracts of the articles found in the search. The articles that were not configured as case reports, despite being entitled as such, were excluded and not counted in our results.

Virtual searches were made providing us with information on the number of cases involved in each report, the number of case reports by year of publication, the area of Speech Therapy and Audiology that the case reports refer to, the age of the subjects involved, clinical procedures in the cases and the classification as clinical or non-clinical. We were also able to discuss the role of case reports in the Speech Therapy and Audiology scenario in relation to the fulfillment of its objectives, presented in the introduction of this research.

RESULTS

To contextualize this research in a critically and reflective way, it was necessary to quantitatively structure the obtained data, in search of the quality of this kind of research.
While we agreed with the definition that a case study needs to be seen by the therapist as a unique experience that consolidates his encounter with the patient and that supports a theoretical advance\(^7\), we found, in our research, case reports that, in the majority, dwell on the speech therapist’s relationship with more than one subject. Looking more closely to see the difference between the approach and the scope of the single case and of the group sessions, we did not find a clear boundary between these two modalities. On the other hand, reports based on one or up to five cases, largely surpass those that studied more than 5 and even greater than 10 cases. The justification for this preference for a smaller number of subjects would be, perhaps, the possibility to base oneself on a unique interaction of the therapist with the patient and thus interfere in the structuring of his interventions/diagnostics. If the purpose of the publication of this experience were the academic and scientific fomentation, this experience would fulfill its didactical, metaphoric and/or heuristic function\(^7\). Thus, the results indicate: (a) a certain preference for single case studies (34%), but a clear tendency to study up to five cases (31%), compared to studies with larger numbers of subjects (5%).

### Table 1. Number of cases per publication

<table>
<thead>
<tr>
<th>JOURNAL</th>
<th>1 CASE</th>
<th>2-5 CASES</th>
<th>06-10 CASES</th>
<th>ABOVE 10</th>
<th>TOTAL</th>
</tr>
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<td>26</td>
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<tr>
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<tr>
<td>DIC</td>
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<td>3</td>
<td>5</td>
<td>17</td>
</tr>
<tr>
<td>TOTAL</td>
<td>63</td>
<td>56</td>
<td>25</td>
<td>7</td>
<td>151</td>
</tr>
</tbody>
</table>

**Legend:** ACR = Audiology- Communication Research; CODAS = Jornal da Sociedade Brasileira de Fonoaudiologia; CEFAC = Speech, Language, Hearing Sciences and Education Journal; DIC = Revista Distúrbios da Comunicação

### Figure 1. Number of cases per publication

![Number of cases per publication](image-url)
of submitted publications. A jump occurred in 2011 (30.7%) and 2012 (27%), decreasing in 2013 (11.5%) and 2014 (15.4%).

The CEFAC Journal was the one that showed greater regularity in the number of published case reports over the years: 2009: 10.3%; 2010: 17.6% and 16.2%; 2011: 19.2%; 2012: 23.5%, 2013 and 2014: 13.2%.

In the ACR Journal, the publications of case reports showed a numerical regularity between the years 2009 to 2011, and then started a decline that extends until 2014. The data, translated into percentages, shows this situation more clearly when, in 2009 and 2010, the case reports account for 30% of the findings in the survey. In 2011, this number shows a slight decrease (20%), with a more evident decrease in 2012 (15%) and 2013 (5%), reaching 2014 without any publication of this kind.

In the CoDAS Journal, the numbers initially show a slight progression that is not sustained over the years. In 2009 and 2010, the case reports represented 7.7% of submitted publications. A jump occurred in 2011 (30.7%) and 2012 (27%), decreasing in 2013 (11.5%) and 2014 (15.4%).

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DIC Journal showed an increase in the number of publications over the study period. Both in 2009 and in 2011, we found published case reports, transcribed here as 5.9% of the research. In 2010 and 2013, no case reports were published but in 2012 and 2014, respectively, there was 41.2% and 47% of case reports published in relation to other types of publication in DIC Journal.
By observing the research results that link the article to the Speech Therapy and Audiology area, Language was the theme most found in the reports, followed by Orofacial Motricity, Audiology, Voice, and finally, research involving, simultaneously, more than one clinical field. There is no evidence that these numbers reflect a greater interest of Speech Therapy and Audiology for some of the specialties or for a greater demand for knowledge and dissemination of certain techniques or even the relationship between publications and a higher incidence of complications in any of the fields. Therefore, it seems that the reports are published without any policy of privileging one area over another. Since Speech Therapy and Audiology study area covers the largest number of case reports found in this research, it could lead to the conclusion that these fields/themes are of most interest. Nevertheless, it also raises a question, when examining the published contents: does the reported clinical condition illustrate a theoretical elaboration so that the case report meets its objective of being a written text to be read and discussed by its narrative style? It could be a session report, or the progress of the subject's history, or the exposition of his clinical life and symptoms, but it should target the interest of the reader community. Later on we will look closer to see if this research can bring to the surface the loss of the uniqueness of the therapist/patient clinical situation, which is essential for the elaboration of such kind of article, in favor of the journals concern of prioritizing the amount of scientific production over its contents.

Table 3. Article relation with the specialty area

<table>
<thead>
<tr>
<th>JOURNAL</th>
<th>LGG</th>
<th>MO</th>
<th>AUD</th>
<th>VOICE</th>
<th>MIX</th>
<th>TOTAL</th>
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<tr>
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<td>26</td>
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<tr>
<td>CEFAC</td>
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<td>11</td>
<td>7</td>
<td>3</td>
<td>68</td>
</tr>
<tr>
<td>DIC</td>
<td>9</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>17</td>
</tr>
<tr>
<td>TOTAL:</td>
<td>70</td>
<td>29</td>
<td>24</td>
<td>16</td>
<td>12</td>
<td>151</td>
</tr>
</tbody>
</table>

Legend:  LGG = Language; MO = Oral Motricity; AUD = Audiology; ACR = Audiology- Communication Research; CODAS = Jornal da Sociedade Brasileira de Fonoaudiologia; CEFAC = Speech, Language, Hearing Sciences and Education Journal; DIC = Revista Distúrbios da Comunicação

Figure 3. Article relation with the specialty area
To analyze the data obtained in the present investigation regarding the age of the subjects in the researched articles, we classified the findings in the following categories: baby, child, adult, elderly and mixed (when various age groups are involved).

ACR, CoDAS and CEFAC Journals demonstrated the predominance of research involving children, the target audience, particularly in the study area of language. In the DIC Journal, exceptionally, elderly people were more frequent in the category: subjects of research.

In general analysis, making the sum without considering the specificity of each journal, research with children is the majority followed by research with adults, mixed, elderly, baby and teenagers. The data reveals the need to encourage the production of case reports for the elderly, babies and teenagers, which are not included, but that also require Speech Therapy and Audiology interventions.
can assign to the patient the position of agent in the discursive interaction, since dialogue is the essence of the therapeutic process. Under this view, the speech therapist and the audiologist establish a relationship with the listening and the interpretation of the speech of the other, determining the recognition of the patient as the subject.

Criticism is in order to those articles that clearly make this separation. On the other hand, incentive must be given for future researches to consider the subject’s speech about himself and his symptoms so that the diagnosis will not focus solely on the symptoms, but on the involvement of the subject in the symptoms.

DISCUSSION

Analyzing the number of articles under case report, we separated and correlated the number of “reports” with the years they were published because there is a significant difference when we use this parameter. We

Table 5. Procedures

<table>
<thead>
<tr>
<th>JOURNAL</th>
<th>Diagnostics</th>
<th>Intervention</th>
<th>Diagnostics and Intervention</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACR</td>
<td>18</td>
<td>11</td>
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<tr>
<td>CODAS</td>
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<tr>
<td>DIC</td>
<td>10</td>
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<td>2</td>
<td>17</td>
</tr>
<tr>
<td>TOTAL</td>
<td>69</td>
<td>64</td>
<td>18</td>
<td>151</td>
</tr>
</tbody>
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Figure 5. Procedures

At this stage of the research, we observe that in clinical procedures adopted by the researched articles, there is a balance between the number of case reports discussing diagnosis and intervention. Fewer in number are the procedures in which the diagnostic and the therapeutic or intervention are associated. This data shows that Speech Therapy and Audiology remains in a dependent relationship with clinical medicine, where the organic questions determine the functioning of language. For the Speech Therapy and Audiology remains the therapeutic part, or rather, Propaedeutic or Deontology. Under this view, Speech Therapy and Audiology seek to understand language symptom from a linear cause and effect relationship, quantifying it, sorting it, and describing it. There is a clear separation between diagnosis and intervention, which enables us to ask what the position occupied by the subject is in this situation.

The speech therapist and the audiologist do not need to necessarily follow this formulation; they
see that from 2009 to 2014 there is a total number of 151 case reports published in five years. Regarding the specialties of Speech Therapy, we found an almost equal number of case reports in the fields of Language, Oral Motor Skills and Audiology. Slightly smaller, the field of Voice is mentioned less than the others, but still ahead of case reports in which symptoms of more than one of the fields appears combined. Regarding the gender of the subjects mentioned in the studies, we found a slight favoring of males, but it is not clear whether this is due to the greater number of cases or simply to the interest in the study and the subjects available for analysis. The age of the subjects favors the studies of children that appear twice as much in relation to case studies of adults, and in last place are the case reports of teenagers. One might question this relationship. It is known that children are the focus of any study in the field of Speech Therapy and Audiology for they are in development and the intervention is more favorable in this age group. The concern of parents also interferes with this number as children come to the clinic brought by them. A balance between the number of reports on diagnosis and those on intervention was observed in our results. There is a far lesser number of case reports in which the diagnosis and the therapeutic/intervention are associated, which leads us to question the position occupied by the patient since it is unthinkable, in a clinical discipline, that the formulation of the diagnosis is disassociated from the intervention and vice-versa. It must be remembered that Speech Therapy and Audiology is aimed at the treatment or the transformation of the suffering due to symptoms in speech or writing, in hearing, in oral and other motor functions. There was the need to critically analyze this finding, as Speech Therapy and Audiology, as a clinical discipline, should prevent separation between therapy and diagnosis. The clinical area is a structure and, as such, has its components in constant articulation so that the direction of an intervention can be identified, described, and explained. For there to be interpretation of clinical data it is necessary that the method be clearly outlined in the body of the case studies because there is no spontaneous clinical fact; the facts always depend on the network in which they are captured.\textsuperscript{16}

**CONCLUSIONS**

We conclude that, although the case report has a constant presence in the analyzed publications, its importance to clinical reasoning is still much underestimated.

The constant tendency in the researched studies is to present the case without a discussion of its relevance or of the theoretical advance such study brings to the field. The greatest contribution would be to allow the reader to resolve impasses in clinical care cases, which are considered difficult although not rare. Parents who bring multiple demands and express enormous suffering in their search for a diagnosis could be a priority theme in clinical care of cases of delayed speech, which are so common in children and so frequent in clinical practice, as pointed out by the findings.

The single case would also allow the recognition of the patient’s uniqueness and his/her special needs, requiring a critical and specific look, allowing the emergence of specific transforming actions.

Finally, the systematic presence of those case reports surveyed in journals indicates, on the one hand, its relevance, and secondly, that a more detailed discussion of its purpose and objectives could be beneficial for a clinical field, committed to a constant review of its methods and practices.

**REFERENCES**