

Qualitative research in postgraduate programs in nutrition in Brazil: analysis of dissertations and theses

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Abstract

This article intends to identify and analyze the philosophical and methodological trends of the scientific knowledge that were responsible for the dissertations and theses with qualitative and mixed approaches produced by postgraduate programs in Nutrition in Brazil in the period of 2003 to 2012. Of the 22 postgraduate programs that were connected to the area of Nutrition of Coordination for the Development of Higher Education Personnel, seven programs that provide websites with the list of dissertations and theses were investigated. Regarding the scientific knowledge approaches, the dissertations and theses were organized into: quantitative approaches, qualitative approaches and mixed approaches. The analysis proceeded, in addition to reading the abstracts and methodological summaries, to the identification of the bibliographic reference used, seeking to identify: a) The type of approach or design; b) The procedures and instruments of the process of data collection; c) The data analysis procedures; and d) The main and supporting theoretical references. The hegemony of the quantitative approach, adopted by 92.5% (n=890) of the total dissertations and theses analyzed, shows the strong influence that the philosophical trends based on positivism and biological sciences still have on the field of Nutrition. The “marginal” and “forthcoming” participation of the qualitative and mixed approaches, adopted by only 7.3% (n=70) of the total dissertations and theses analyzed, expresses the influence that social and human sciences and the philosophical currents such as dialectics and phenomenology have on a very narrow group of researchers that set up the field of Nutrition.

Key words: Qualitative research. Postgraduate programs. Master's. PhD. Nutrition. Social sciences.

Introduction

The emergence of Nutrition in Brazil as a scientific field, public policy and profession, a relatively recent historical phenomenon, occurred from the early 1930s and was the subject of some research studies conducted in the last three decades.¹⁻⁷

In turn, the emergence of postgraduate programs in Nutrition in Brazil, a much more recent historical phenomenon, occurred since the creation of the Masters program in Nutrition of the Federal University of Pernambuco (UFPE), which started in the first semester of 1971.⁸ According to Kac et al.,⁹ *stricto sensu* postgraduate programs that comprised the subarea Nutrition in the Coordination for Development of Higher Education Personnel (Capes) experienced a significant growth in the last decade: corresponded to five in 1995, reaching 18 in 2011. According to Capes, on July 1st 2013, 23 *stricto sensu* postgraduate programs and courses were linked to the field of Nutrition evaluation (<http://www.capes.gov.br/cursos-recomendados-e-reconhecidos>).

Although scarce, some studies conducted in the last decade have sought to analyze teaching, scientific production and other characteristics of postgraduate education in Brazil. Nunes et al.,¹⁰ by analyzing the trajectory of postgraduate education in Public Health in Brazil, particularly in the period of 1996-2006, found that there was an increase in the number of programs and courses that began in the 1970s, a diversification of denominations and areas of concentration and a continuity of the regional imbalance, because 66% of the programs were located in the Southeast.

Viacava,¹¹ in turn, when analyzing the scientific production of postgraduate courses in Public Health in 1998-2006, based on the full articles registered in the Capes Collection System, found a significant growth in the production of articles published in journals, which accounted for about 60% of the scientific production of this field, and he also observed a considerable increase in the publication of articles in national and international journals with higher Qualis and also a reduction in publication in national and local magazines without Qualis.

Rosa & Leta¹² conducted research seeking to identify the main epistemological trend of the research originated in 11 postgraduate programs in Physical Education in Brazil, based on the Capes annual evaluation reports from 2001-2003. The analysis of bibliographic production for these three years revealed a higher prevalence of studies with biological approach, supported mainly in Physiology. However, we also identified growth in studies based on Social Sciences and Humanities, revealing an epistemological heterogeneity and the multidisciplinary nature of this field of knowledge.

Araújo & Almeida¹³ conducted a research on the dissertations and theses produced in the period 1974-2004 in the postgraduate programs in Nutrition in Brazil, seeking to draw a descriptive profile of the scientific literature on breastfeeding. The analysis of this scientific production revealed a

trend of studying breastfeeding addressing only its biological and epidemiological dimensions, without worrying about the subjective, social and cultural dimensions involving its practice.

Although its primary focus is not the analysis of dissertations and theses, the study by Canesqui¹⁴ stands out, which is an analysis of the state of the art of qualitative research in Food and Nutrition published from 1985 to 2007 in the database *Scientific Electronic Library Online* (SciELO). According to the results, out of the 327 abstracts captured, 93 (28.4%) were designated as qualitative research or incorporated references from social sciences and humanities. The author concluded that qualitative research positively expanded the dialogue between Nutrition and social sciences and humanities, although requiring a theoretical and methodological improvement in order to surpass the descriptive studies, suiting its understanding.

Published in the 1980s, the study by Rocha & Silva¹⁵ stands out among the rest by trying to identify the correlations of 285 dissertations and theses produced in postgraduate programs in Nursing with the streams of philosophical thought on which they are based. At the time, the study revealed a marked influence of positivism and an emerging trend of other philosophic currents, such as dialectics and phenomenology, on scientific works in Nursing produced in Brazil.

The purpose of this article is to identify and analyze the philosophical and methodological currents of scientific knowledge that supported the theses with qualitative and mixed approaches produced in postgraduate programs in Nutrition in Brazil in the period 2003-2012.

Method

To define the postgraduate programs in Nutrition to be investigated, the following selection criteria were pre-set: 1) Of the universe of 22 postgraduate courses and programs related to the Capes area of Nutrition, on May 15th, 2013, should be included only programs that include both Master's and PhD courses (n=9) (<http://www.capes.gov.br/cursos-recomendados>); 2) The programs to be included should have web pages to make available a list of dissertations and theses presented in the period under investigation; 3) The period of investigation would correspond to the last ten years (January 2003 to December 2012).

Three of the nine pre-selected programs were excluded for not meeting the requirements for providing the list of dissertations and theses in the period under investigation - the programs of the University of Brasilia (UNB), the State University of Campinas (Unicamp) and the University of São Paulo (USP). Was intentionally included in the research the Postgraduate Program in Food, Nutrition and Health from the Federal University of Bahia (UFBA), due to its production in the field of qualitative research. At the end of the application of the selection procedures, seven

postgraduate programs in Nutrition were defined to be investigated: the Federal University of Pernambuco (UFPE), the Federal University of Rio de Janeiro (UFRJ), the Federal University of São Paulo (Unifesp), the Federal University of Viçosa (UFV), the Federal University of Santa Catarina (UFSC), the Federal University of Bahia (UFBA) and the State University of Rio de Janeiro (Uerj).

The list of dissertations and theses was accessed from visits between May 15th and 31st 2013, to the websites of the seven graduate programs investigated. Note that only four programs (Uerj, UFBA, UFRJ and UFSC) provide what in their web pages, in addition to listings per year of presentation, links (shortcuts) or other resources to access abstracts and/or documents in full. The other three programs (UFPE, UFV and Unifesp) only provided listings per year of presentation, so the abstracts and/or documents in full, when necessary, were accessed from a consultation to the Capes Theses Database (<http://capesdw.capes.gov.br/capesdw/>).

To systematize the categorizing and analysis process, the list of dissertations and theses of each of the seven programs investigated was imported into *Microsoft Excel*[®] spreadsheets, in which the available information, such as order number, the author of the study, title, date of presentation, supervisor name, examination board, level, line of research, concentration area and keywords (variable information for each program) were reorganized according to the specific interests of this research.

To perform the analysis, each dissertation or thesis was subjected to two forms of categorization: 1) As to the approach of scientific knowledge (or philosophical and methodological currents of thought); and 2) As to the core knowledge / expertise in the field of Nutrition.

Regarding the approaches of scientific knowledge, the theses were categorized into three types, namely: quantitative approaches, qualitative approaches and quanti-qualitative or mixed approaches. This categorization was based on studies of authors linked to the discipline Scientific Methodology or Research Methodology, such as John W. Creswell,¹⁶ Marina Andrade Marconi and Eva Maria Lakatos¹⁷, and Roberto Jarry Richardson.¹⁸ In fact, the original intention was to categorize the theses according to the concepts or philosophies they were based on, however, given the fact that for the vast majority of studies, such conceptions were hidden or not explicit, we chose to guide ourselves by the categorization proposed by Creswell.¹⁶ So roughly, to Creswell,¹⁶ the quantitative approach aims to test objective (deductive) theories, examine the relationship between variables that can be measured by instruments, and analyze numerical data obtained from statistical procedures; the qualitative approach aims at in-depth exploration or analysis, in an inductive way, of the meanings that individuals or groups of individuals ascribe to a social or Human problem, and the mixed approach, in turn, aims to involve the simultaneous use of quantitative and qualitative approaches, seeking to enhance the overall strength or the explanatory power of the study in relation to the isolated use of these two approaches.

Regarding the core knowledge/expertise in the field of Nutrition, the dissertations and theses were categorized into six modes, namely: a) Clinical Nutrition; b) Basic and Experimental Nutrition; c) Food Science and Technology Applied to Health; d) Nutrition in Public Health; e) Social Sciences and Humanities in Food and Nutrition; and f) Nutrition in the Production of Meals. This categorization was built based on the requirements of the Capes area of Nutrition assessment for the organization of the lines of research and activities in postgraduate programs (http://www.capes.gov.br/images/stories/download/avaliacao/Criterios_APCNs_Nutricao.pdf) and the compilation, held by the National Forum of Coordinators of Postgraduate Programs in Food and Nutrition, the knowledge cores present in the postgraduate programs in the field of Food and Nutrition inserted in the evaluation of Medicine II in Capes in 2009.⁹ Thus, in the knowledge core of Clinic Nutrition were included dissertations and theses concerned with the study of nutrition diagnostics and/or therapies of human pathologies at the individual level. At the knowledge core Basic and Experimental Nutrition, were included dissertations and theses involving basic research of experimental and laboratory character with animals and/or humans, involving the fields of Biochemistry, Dietetics, Physiology, Genetics, Pathology, among others. At the knowledge core of Food Science and Technology Applied to Health were included dissertations and theses involving research on chemical composition, sanitary quality, Food Engineering and Technology. For the knowledge core of Nutrition in Public Health, were included dissertations and theses on diagnostics and nutritional interventions, within the collective scope, involving disciplines and contents such as Nutritional Epidemiology, Policies, Planning and Management in Food and Nutrition, among others. For the knowledge core Social Sciences and Humanities in Food and Nutrition were included theses and dissertations that approach the fields of Anthropology, Communication, Law, Economics, Education, Philosophy, History, Geography and Sociology in Food and Nutrition, among others. For the knowledge core Nutrition in the Production of Meals were included dissertations and theses on the production and consumption of meals, on the evaluation and proposal of quality systems (nutritional, sensory, sanitary hygienic, regulatory, symbolic and sustainability) in collective and commercial units of food and nutrition.

In the analysis for categorization of dissertations and theses on the approaches of scientific knowledge and the distinct knowledge/expertise cores of the scientific field of Nutrition, were performed the following procedures: 1) Reading of the titles; 2) Identification of the line(s) of research of the supervisor; 3) Reading of the abstracts; and 4) Reading of the section/chapter on the methodological procedures of the research. It is noteworthy that for the vast majority of dissertations and theses (72.8%), simply reading the titles was enough to achieve the categorization procedures, since the titles offered adequate information to do so.

For analysis of dissertations and theses categorized into qualitative and quanti-qualitative approaches (n=70) in addition to reading the abstracts and methodological chapters, the bibliographic references used were identified. To systematize the process of analyzing these 70 dissertations and theses, this study sought to identify: a) The type of approach or design (explicit or hidden) used; b) The procedures and instruments for data collection process; c) Data analysis procedures; and d) The primary and secondary theoretical references used in the scientific reasoning of the study. It should be noted that in this article, the analysis of qualitative and mixed approaches was exhaustively performed only for 43 dissertations and theses that were available in full at the websites of the UFBA, Uerj and UFSC programs. The 20 theses and dissertations using qualitative and mixed approaches found in the UFPE, UFRJ, Unifesp and UFV programs were not available in full and therefore it was not possible to include them in this analysis.

Results

As shown in Table 1, for the set of 962 dissertations and theses presented in the period of 2003-2012 in the seven postgraduate programs investigated, there was the hegemony of the quantitative approach, since this type of research was adopted by 92.5% (n=890) of all researchers. In numerical terms, the qualitative approach had a “marginal” stake, since it was adopted by only 5.4% (n=52) of total researchers. The mixed or quanti-qualitative approaches, in turn, have been adopted by only 1.9% (n=18) of total researchers.

Analyzing the seven programs in isolation, it was observed that the hegemony profile of the quantitative research was reproduced for each of them, being almost exclusive for Unifesp programs (99%, n=103), UFPE (97.4%, n=289) UFV (96.7%, n=145) and UFRJ (95.1%, n=155). The participation of qualitative and mixing approaches was more expressive in the programs from UFBA (n=20, 24.7%), Uerj (n=13, 28.3%) and UFSC (n=17, 14%). In the other four programs, the participation of qualitative and mixed approaches was inexpressive, amounting to 3.6% (n=6) at UFRJ, 3.3% (n=5) at UFV, 2.6% (n=8) at UFPE and 1% (n=1) at Unifesp (table 1).

Table 1. Distribution of dissertations and theses presented in the period 2003-2012 in the seven postgraduate programs in Nutrition investigated, according to the scientific knowledge approach. Florianópolis, SC, 2012.

POSTGRADUATE PROGRAM IN NUTRITION	Type of scientific knowledge approach				Total n (%)
	Quantitative n (%)	Qualitative n (%)	Quanti-qualitative n (%)	Other n (%)	
UFPE	289 (97.4)	4 (1.3)	4 (1.3)	--	297 (100.0)
UFRJ	155 (95.1)	3 (1.8)	3 (1.8)	2 (1.3) ^(*)	163 (100.0)
Unifesp	103 (99.0)	1 (1.0)	--	--	104 (100.0)
UFV	145 (96.7)	--	5 (3.3)	--	150 (100.0)
UFSC	104 (86.0)	14 (11.6)	3 (2.4)	--	121 (100.0)
UFBA	61 (75.3)	18 (22.2)	2 (2.5)	--	81 (100.0)
Uerj	33 (71.7)	12 (26.1)	1 (2.2)	--	46 (100.0)
TOTAL	890 (92.5)	52 (5.4)	18 (1.9)	2 (0.2)	962 (100.0)

(*) The development of educational materials on nutrition and food education, which did not fit the categorization of pre-established scientific knowledge approaches.

Ethnography, hermeneutics and phenomenology: key characteristics of qualitative approaches in the Postgraduate Program in Food, Nutrition and Health at UFBA

In the UFBA postgraduate program, 14 dissertations categorized themselves as ethnographies or ethnographic exercises/studies. The procedures for data collection of these dissertations included: free observation, participant observation, field diaries or records, photographic records, semi-structured interviews with recording, and one of them, conducting focus groups. Therefore, such procedures are consistent and characteristic of the research with qualitative approach.¹⁶⁻²⁰

The so-called hermeneutic (or symbolic or interpretative) anthropology, by American anthropologist James Clifford Geertz (1926-2006) (http://pt.wikipedia.org/wiki/Clifford_Geertz), was the main reference for analysis of most of these dissertations, and this author is referenced by at least 12 dissertations, from the work *A interpretação das culturas*.²¹

The so-called philosophical hermeneutics of Hans-Georg Gadamer (1900-2002) (http://pt.wikipedia.org/wiki/Hans-Georg_Gadamer), German philosopher author of *Verdade e método*,²² appeared as an interpretative reference of at least four dissertations.

The qualitative research approach of Brazilian sociologist Maria Cecília de Souza Minayo, mainly described in her work *Odesafio do conhecimento: pesquisa qualitativa em saúde*,¹⁹ was part of a cross-reference analysis of at least 16 dissertations.

The theory of social representations of Romanian social psychologist Serge Moscovici appeared as the main interpretive reference of two dissertations, from the book *A representação social da psicanálise*.²³

The hermeneutic and phenomenological perspective of French philosopher Paul Ricoeur (1913-2005) (http://pt.wikipedia.org/wiki/Paul_Ric%C5%93ur) appeared as the main analytical reference of a dissertation, from the reading of *Do texto à ação: ensaios de hermenêutica II*,²⁴ although two other dissertations also reference this author.

The discourse analysis method of the French philosopher linked to Michel Pêcheux's (1938-1983) (http://pt.wikipedia.org/wiki/Michel_P%C3%A7heux) current of historical materialism appeared as analytical strategy of a dissertation. The semiotic analysis of French philosopher Roland Barthes (http://pt.wikipedia.org/wiki/Roland_Barthes) appeared as the main analytical reference of a dissertation as a supporting reference of at least five others, from *Elementos de semiologia*.²⁵

The method of life history of French sociologist Daniel Bertaux (http://en.wikipedia.org/wiki/Daniel_Bertaux) appeared as an analytical reference of two dissertations, from reading *Narrativas de vida: a pesquisa e seus métodos*.²⁶

This set of dissertations (ethnographies) can be characterized as multi-reference analyzes, in which, roughly, different epistemological perspectives or methodological philosophical currents of scientific knowledge are blended together. Thus, in addition to the analytical references already identified, other important authors transitioned in the analyzes of these dissertations with a qualitative approach, some linked to the phenomenological approach, such as Alfred Schutz (1899-1959) and Maurice Merleau-Ponty (1908-1961), others linked to ethno-psychoanalysis, such as French anthropologist/philosopher François Laplantine, and to social psychology, such as Martin Bauer, others yet linked to structuralism, such as philosopher Michel Foucault (1926-1984) and the constructivist structuralism, such as Pierre Bourdieu (1930-2002).

As supporting references to dissertation with qualitative approach, there were still many contemporary authors of the emerging field of Social Sciences and Humanities in Food and Nutrition (Anthropology, Economics, Education, Philosophy, Geography, History, Sociology, Psychology and others),¹⁴ among these stand out Claude Fischler, Jean Louis Flandrin, Jean Pierre Poulain, Jesús Contreras Hernández, Mabel Gracia Arnaiz and Massimo Montanari. Also noteworthy are national authors such as Ana Maria Canesqui, Klaas Axel Anton Wessel Woortmann, Maria Eunice de Souza Maciel, Wanda Diez Garcia, Ligia Amparo da Silva Santos and Maria do Carmo Soares de Freitas, the last two being permanent professors of the UFBA graduate program and responsible for the qualitative line of research based on ethnographies.

Another line of research with qualitative or quanti-qualitative approach identified in the dissertations presented in the UFBA program took as research object the construction and/or application of theoretical models of evaluation of public policies. This line was identified in at least four of the dissertations analyzed. Although categorized within the qualitative research and presenting a multi-reference approach, in general, these dissertations did not explicitly present a specific theoretical reference. Among the theoretical references identified, it is worth noting the so-called egalitarian liberalism of political philosopher John Rawls (1921-2002) (http://pt.wikipedia.org/wiki/John_Rawls), from reading the book *Uma teoria da justiça*;²⁷ and the so-called theory of evaluation applied to social services and programs based on democratic and participatory principles and the social utility of the results of Spanish social pedagogue Miquel Gómez Sierra (http://www.agapea.com/libros/Evaluacion-de-los-servicios_sociales9788497840033-i.htm), from the work *Evaluación de los servicios sociales*.²⁸

Focus groups, ethnographies, constructivist structuralism: key characteristics of qualitative approaches in the Uerj Postgraduate Program in Food, Nutrition and Health

At the Uerj Postgraduate Program in Food, Nutrition and Health, of the 13 dissertations analyzed, two categorized themselves as ethnographies, one as a socio-anthropological study, one as a textual analysis based on semiotics, one as analysis of research groups in the field of Food and Nutrition, one as construct and application of theoretical model for the evaluation of public policy and the others, although using procedures for collecting and analysis associated with qualitative research,¹⁶⁻²⁰ did not specify the type of desing/study to which they belonged. On the website of the program, of the 13 dissertations analyzed, only five were available for the full versions of the works, for the others were available only summaries, which, in most cases, did not have the information needed for our analysis. The procedures for collecting data from the two ethnographies were described as systematic observation, photographic records and ethnographic interviews. The

procedures for data collection from other dissertations were: two used a combination of semi-structured interviews with focus groups; two used a combination of semi-structured interviews with participant observation; two used only the conduction of semi-structured interviews; two, only the conduction of focus groups; one used the textual content of magazine covers; one used the information from the CNPq Directory of Research Groups; and one used a combination of procedures for data collection (literature review, consultation with experts etc.) to build the evaluation model. Therefore, such procedures are consistent and characteristic of the research with qualitative approach.¹⁶⁻²⁰

The analysis of the theoretical and methodological reference could only be performed for nine of the dissertations, which were available in full (n=5), or whose abstracts offered the minimum information required (n=4). Similar to the analysis conducted for dissertations of the UFBA programs, it is observed that the set of the nine dissertations in the Uerj program can also be characterized as multi-reference analyses, in which different epistemological perspectives or philosophical methodologies of scientific knowledge are mixed.

The constructivist structuralism of French philosopher/sociologist Pierre Bourdieu (1930-2002) appeared as the main theoretical reference of four dissertations and as a supporting reference of two more, particularly in the adoption of the concepts of *habitus*, scientific field and symbolic capital, made from works such as *A economia das trocas simbólicas*²⁹ and *Sobre a televisão*.³⁰

The qualitative research approach of Brazilian sociologist Maria Cecília de Souza Minayo, mainly present in her work *O desafio do conhecimento: pesquisa qualitativa em saúde*,¹⁹ was part of a cross-reference analysis of at least four dissertations.

The historical and dialectical materialism appeared as a theoretical supporting reference or cross-reference in at least two dissertations, from references of authors linked to this scientific and philosophical current of thought, such as German philosopher Karl Marx (1818-1883), German philosopher Friedrich Engels (1820-1895), Hungarian philosopher Georg Lukács (1885-1971), the philosopher of Czech origin Karel Kosík (1926-2003), Jamaican sociologist Stuart Hall and the Soviet philosopher Alexandre Cheptulin.

The concept of postmodern consumerism of Polish sociologist Zygmunt Bauman (http://pt.wikipedia.org/wiki/Zygmunt_Bauman) appeared as a supporting reference of two dissertations, from the work *Vida para consumo: a transformação das pessoas em mercadorias*.³¹

The theory of social representations by Serge Moscovici²³ associated with the method of content analysis of Laurence Bardin,³² appeared as main interpretive reference of one dissertation, based on the article by French sociologist Claudine Herzlich, “*A problemática da representação social e sua utilidade no campo da doença*”.³³

One of the ethnographies analyzed brings as main methodological reference the five phases of feeding activities proposed by British anthropologist Jack Goody, from his work *Cook, cuisine and class: a study in comparative sociology*,³⁴ while it is also based on classics of Anthropology and Social Sciences and Humanities such as French sociologist and anthropologist Marcel Mauss ((1872-1950), Polish anthropologist Bronislaw Malinowski (1884-1942), French-Belgian anthropologist Claude Lévi-Strauss (1908-2009), American anthropologist James Clifford Geertz (1926-2006) and others, such as Tim May,³⁵ Paul Atkinson and Martyn Hammersley.³⁶

Similarly to what was observed in the analysis of the UFBA program, as supporting references of qualitative approach dissertations presented at Uerj, there were several contemporary authors of the emerging field of Social Sciences and Humanities in Food and Nutrition,¹⁴ such as Claude Fischler, Jean Pierre Poulain, Jesús Contreras Hernández, Mabel Gracia Arnáiz and Massimo Montanari.

Also noteworthy are national authors such as Ana Maria Canesqui, José Ricardo de Carvalho Mesquita Ayres, Klaas Axel Anton WesselWoortmann, Luciene Burlandy, Maria Eunice de Souza Maciel, Maria Lúcia Magalhães Bosi, Rosa Wanda Diez Garcia, Rosana Magalhães, Maria Cláudia da Veiga Soares Carvalho, Shirley Donizete Prado e Silvia Angela Gugelmin, the last three being professors linked to the Uerj postgraduate program and responsible for the qualitative research line.

Case Studies, Sociology of Food and Nutrition in meal production: key characteristics of qualitative approaches in the UFSC Postgraduate Program in Nutrition

In the UFSC Postgraduate Program in Nutrition, of the 17 dissertations analyzed, 15 categorized themselves as case studies, one as ethnography and one as phenomenological study. On the website of the program, the full versions of three dissertations were not available, and the abstracts available in the Capes Theses Database did not bring all the information needed for our analysis. The procedures for data collection of dissertations categorized as case studies included: documentary analysis, semi-structured interviews with recording and direct observation (n=6); document analysis, semi-structured interviews, direct observation and focus groups (n=2); documentary analysis, direct observation, armed observation (measuring, recording, filming, clinical/physical exam, tasting) and other of data collection techniques (n=3); documentary analysis, development, implementation and evaluation of a method or technical procedure (n=4). The procedures for data collection of the ethnography focused on participant observation and phenomenological study of interviews with recording. Therefore, such procedures are consistent and characteristic of the research with qualitative approach.¹⁶⁻²⁰

The analysis of the theoretical and methodological reference could only be performed for 14 of the dissertations, which were available in full. Similar to the analysis conducted for dissertations of the UFBA programs, it is observed that the set of these dissertations in the UFSC program can also be characterized as multi-reference analyses, in which different epistemological perspectives or philosophical methodologies of scientific knowledge are mixed. It is noteworthy that all dissertations categorized as case studies are linked with the core knowledge in Nutrition in Meal Production, an important line of research of the UFSC Postgraduate Program. Thus, in general, such dissertations have, as empirical basis of research, meal production units (MPU) in hospitals, industries, restaurants, hotels, schools, etc. In at least nine of these case studies, the works *Inovação tecnológica na produção de alimentação coletiva*³⁷ and *O espaço social alimentar: um instrumento para o estudo dos modelos alimentares*³⁸ constituted the theoretical and methodological reference that characterizes the specificity of the knowledge core in Nutrition and Meal Production.

The main theoretical and methodological reference of these case studies was the work *Manual de investigação em Ciências Sociais* by Belgian social scientists Raymond Quivy and Luc Van Campenhoudt,³⁹ cited in at least ten dissertations.

The pedagogue and PhD in Education Arilda Schmidt Godoy appeared as a reference in at least nine dissertações.^{40,41}

The qualitative research approach of Brazilian sociologist Maria Cecília de Souza Minayo, especially of her work *O desafio do conhecimento: pesquisa qualitativa em saúde*,¹⁹ was part of a cross-reference analysis of at least six dissertations.

The work *Estudo de caso: planejamento e métodos*, by Robert K. Yin,⁴² appeared as a reference for four dissertations.

The method of content analysis of Laurence Bardin,³² appeared as the main interpretive reference of four dissertations.

It should be noted that, in addition to these theoretical and methodological references already identified, other important national and foreign authors were present in the analysis of this set of dissertations from the UFSC postgraduate program as a form of scientific basis of qualitative research, among which are: Antônio Carlos Gil (Brazil, Social Sciences, Pedagogy), Antônio Chizzotti (Brazil, Education), Augusto Nivaldo Silva Triviños (Chile/Brazil, Pedagogy and Philosophy), Flick Uwe (Berlin/Canada, Psychology, Sociology), George Gaskell (England, Social Psychology), José Carlos Zanelli (Brazil, Psychology, Education), Martin W. Bauer (England, Social Psychology), Peter Henry Mann (1926-2008, England, Sociology) and Roberto Jarry Richardson (Chile/Brazil, Sociology).

The study with a phenomenological approach referenced classical phenomenology authors, such as Edmund Husserl (1859-1938), Martin Heidegger (1889-1976) and Maurice Merleau-Ponty (1908-1961), however, used as a theoretical basis the works of national authors linked to this philosophical current, such as Adriano Furtado Holanda,⁴³ Daniel Augusto Moreira,⁴⁴ Mauro Martins Amatzuzi⁴⁵ and Yolanda Cintrão Forghieri.⁴⁶

In turn, the ethnographic study used as the main analytical reference the so-called hermeneutic anthropology, either symbolic or interpretative, of American anthropologist James Clifford Geertz (1926-2006), along with supporting references, such as the works of Brazilian anthropologists Roberto Cardoso de Oliveira (1928-2006)⁴⁷ and Roberto Augusto Damatta.⁴⁸

Similarly to what was observed in the analysis of the UFBA and Uerj programs, as supporting references of qualitative approach dissertations presented at UFSC, there were several contemporary authors of the emerging field of Social Sciences and Humanities in Food and Nutrition, such as Claude Fischler, Jean Pierre Poulain, Jean Louis Flandrin, Jesús Contreras Hernández, Mabel Gracia Arnáiz and Massimo Montanari.

Also noteworthy are national authors such as Ana Maria Canesqui, Ligia Amparo da Silva Santos, Maria Eunice de Souza Maciel, Maria do Carmo Soares de Freitas, Maria Lúcia Magalhães Bosi, Rosa Wanda Diez Garcia, Shirley Donizete Prado, Silvia Angela Gugelmin, Anete Araújo de Sousa, Francisco de Assis Guedes de Vasconcelos e Maurício Soares Leite, the last three being professors of the UFSC postgraduate program, linked to the qualitative research line.

Final remarks

In conclusion, it is worth explaining the theoretical references or conceptions that support this study. Under the theoretical guidance of the *reflective sociology* or *constructivist structuralism* of Pierre Bourdieu (1930-2002), we borrow the concepts of scientific field, scientific capital, symbolic capital, *homo academicus* and scientific *habitus*.^{29,49,50} Simultaneously, we are also guided by the concepts of paradigm, scientific revolution and scientific community from the *idealist philosophy* of Thomas Samuel Kuhn (1922-1996).^{51,52}

The hegemony of the quantitative approach, adopted by 92.5% (n=890) of the total theses and dissertations analyzed, denotes by itself the strong influence that the philosophical currents based on positivism and Biological Sciences¹⁶⁻²⁰ continue to play in shaping the scientific field of Nutrition. The influence of this biological and positivist paradigm is not specific to the field of Nutrition, having been identified in other scientific fields related to Life Sciences, such as Medicine,⁵³ Dentistry,⁵⁴ Nursing,¹⁵ and Physical Education,¹² among others.

The “marginal” and “emerging” participation of qualitative and mixed approaches, adopted by only 7.3% (n=70) of the total dissertations and theses analyzed, expresses by itself the influence that Social Sciences and Humanities and the philosophical currents such as dialectics and phenomenology have over a very small group of researchers and scientists who make up the scientific field of Nutrition. It is noted, once more, that this counter-hegemonic participation of qualitative approaches centered on new and alternative paradigms that make interfaces with Social Sciences and Humanities and philosophical currents, such as dialectics and phenomenology, have also been identified in other scientific fields related to Life Sciences, such as in Medicine,⁵³ Dentistry,⁵⁴ Nursing¹⁵ and Physical Education,¹² among others.

The production or reproduction of scientific knowledge in Nutrition focused on the adoption of a dominant paradigm, in this case positivist and biological, for almost all the practitioners of that science, raises the debate around the concepts of the scientific community and scientific field, as proposed by Kuhn^{51,52} and Bourdieu,^{29,49,50} respectively. At this time, we decided to get away from the notion that the scientific community would be a freestanding and self-reproducing structure, that scientists would cooperate in a neutral and disinterested way in the name of scientific progress^{51,52}. We prefer to approach the scientific field as a private market within the capitalist economic order characterized by the competitive struggle waged between scientists and/or scientific institutions around the possession of scientific capital - a kind of symbolic, non monetary capital, that turns into authority or scientific competence for science practitioners^{29,49,50}. Therefore, it is necessary to identify in the current objective and subjective conditions that determine the conformation of the scientific field of Food and Nutrition in Brazil, which elements are driving the “interest” of the vast majority of the practitioners of this science in joining the dominant paradigm. Within a complex network of determination, we could point to: a) Financial incentives arising from development agencies both public and private, which almost always set as priority research projects focused on the positivist and biological paradigm; b) The characteristics of the evaluation system of teaching and research in postgraduate studies, which is centered on quantitative criteria, productivity indexes, citation, visibility and circulation of the knowledge produced; and c) The competitive struggle among scientists of the field in the process of production and distribution of scientific capital, which is always defined by the state of the relationship of the protagonists of disputes involving elements such as authority, hierarchy, bigotry, legitimacy, social recognition and accumulation of symbolic capital.^{29,49,50} Such issues go beyond the limits of the present study, demanding future investigations.

The analysis of the 43 dissertations and theses using qualitative and mixed approaches produced in the three postgraduate programs investigated allows for the following concluding summary:

1. With respect to the design or type of study, there was a differentiation between the three programs investigated, prevailing the hegemonic ethnography mode in UFBA, hegemonic case study in UFSC and methodology of focus groups at Uerj;
2. With respect to the procedures for collecting and analyzing data, there was a convergence between the three programs in the use of strategies and methodological procedures that are consistent and characteristic of the research with a qualitative approach;¹⁶⁻²⁰
3. Regarding the main philosophical currents that supported the dissertations and theses, it was observed that roughly the three programs converge in adopting multi-reference analyzes, showing the epistemological heterogeneity in the field of qualitative research in Nutrition. Specific characteristics were observed for all three programs investigated: at UFBA predominated the adoption of references linked to hermeneutics and phenomenology philosophical currents; at Uerj, the constructivist structuralism was the most prevalent philosophical current; and at UFSC, the Sociology of Food was the theoretical and methodological reference that characterized the specificity of research in the field of Nutrition in Meal Production;
4. Excepted the specifics of each program, it was observed that the three involve a very significant range of theoretical references, foreign and domestic, bound both to the different philosophical currents of scientific knowledge and to the emerging field of Social Sciences and Humanities in Food and Nutrition.

In an attempt to better analyze this set of dissertations and theses with mixed and qualitative approaches produced in the three postgraduate programs analyzed, we turn to approach some elements of the design of scientific community proposed by Kuhn.^{51,52} According to this author, in order to understand scientific knowledge as an intrinsic property of a particular scientific community, it is necessary to know the essential features of these units that create and use it. Thus, in general, the organization and functioning of a scientific community would occur as follows:

A scientific community consists of the practitioners of a certain scientific specialty. They were submitted to similar professional initiations and an education to an extent unparalleled in most other disciplines. In this process, they absorbed the same technical literature and withdrew from it many of the same lessons. Normally the boundaries of that standard literature mark the boundaries of an object of scientific study, and in general each community has its own object of study (Kuhn, ⁵¹ p. 220).

Therefore, these researchers linked to qualitative and mixed approaches would constitute scientific communities by sharing the same paradigms (sets of beliefs, values, theories, techniques, methodological procedures etc., able to provide model problems and solutions to science practitioners).^{51,52}

On the other hand, the common features (data collection and analysis procedures, a tendency to multi-reference analyses, socialization of foreign and national theoretical references) and specificities (predominance of certain philosophical and methodological currents) identified in the three programs investigated also brings us near the concept of scientific *habitus* proposed by Bourdieu.^{29,49,50} Scientific *habitus* is understood as a flexible, relational, procedural, unfinished process and in constant transformation, consisting of individual provisions built into specific historic and social conditions of existence, in a dialectical relationship between individual (internal/subjective) and society (external/objective), being directed to the functions and actions of the scientific act.^{29,49,50}

In summary, the field of qualitative research in postgraduate programs in Nutrition presents common characteristics that contribute to the construction of a standard identity of researchers linked to this specific field within the broader field of Brazilian Food and Nutrition. Simultaneously, there are distinct characteristics that can contribute to competition/dependence/interdependence relationships between institutional *habitus* and scientific *habitus* of the social agents that diametrically occupy positions in the field. It is characterized by the use of multi-reference analytical models, and its positioning may be “marginal” in relation to the status of quantitative research to be explained by multiple factors, among which stand out the availability of financial and material resources, the visibility of scientific production and the accumulation of scientific capital of the social agents involved.

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