



Journal of Nursing

Revista de Enfermagem

UFPE On Line

ISSN: 1981-8963

CASE REPORT ARTICLE

REPORT STUDY CONTRIBUTIONS TO THE NURSING CARE: AN EXPERIENCE REPORT

CONTRIBUIÇÕES DO ESTUDO DE CASO PARA O CUIDADO DE ENFERMAGEM: UM RELATO DE EXPERIÊNCIA

CONTRIBUCIONES DEL ESTUDIO DE CASO PARA EL CUIDADO DE ENFERMERÍA: UN RELATO DE EXPERIENCIA

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ABSTRACT

Objective: to present a methodological model of implementing a multiple case study, from the proposed by Yin. **Method:** experience report from using the Case Study method in a Master's dissertation. Nine cases were performed with institutionalized elderly to preparing the nursing process, aimed at the prevention of falls, using elements of the International Disability Classification, Functionality and Health. **Results:** the outlined methodological way from the multiple case study showed great value treated to achieve the research objectives and an appropriate methodological model. **Conclusion:** the use of this method is another option for researchers in nursing and may bring contributions to the care and the practice of this subject. **Descriptors:** Case Studies; Nursing Research; Methodology; Nursing.

RESUMO

Objetivo: apresentar um modelo metodológico de implementação de um estudo de casos múltiplos a partir do proposto por Yin. **Método:** relato de experiência a partir da utilização do método de Estudo de Caso em uma dissertação de mestrado. Foram realizados nove casos com idosos institucionalizados com vistas à elaboração de processo de enfermagem, voltado à prevenção das quedas, utilizando-se elementos da Classificação Internacional de Incapacidade, Funcionalidade e Saúde. **Resultados:** o caminho metodológico delineado, a partir do estudo de casos múltiplos, mostrou-se de grande valia para o alcance dos objetivos da pesquisa e um modelo metodológico adequado. **Conclusão:** o uso desse método é mais uma opção para os pesquisadores em Enfermagem e poderá trazer contribuições para o cuidado e a prática desta disciplina. **Descritores:** Estudos de Casos; Pesquisa em Enfermagem; Metodologia; Enfermagem.

RESUMEN

Objetivo: presentar un modelo metodológico de implementación de un estudio de casos múltiples, a partir de la propuesta de Yin. **Método:** relato de experiencia a partir del uso del método de Estudio de Caso en una disertación de maestría. Fueron realizados nueve casos con ancianos institucionalizados para la elaboración de proceso de enfermería, dirigido a la prevención de las caídas, utilizando elementos de la Clasificación Internacional de Incapacidad, Funcionalidad y Salud. **Resultados:** el camino metodológico delineado a partir del estudio de casos múltiples fue muy valioso para el alcance de los objetivos de la investigación y un modelo metodológico adecuado. **Conclusión:** el uso de ese método es más una opción para los investigadores en Enfermería y podrá traer contribuciones para el cuidado y la práctica de esta disciplina. **Descriptores:** Estudios de casos; Investigación en Enfermería; Metodología; Enfermería.

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INTRODUCTION

The research has become cause of concern to nurses under scientific/technological progress and needs in the academic field of the university. For nursing, research is needed to build and scientific contribution of the education and advancement of nursing practice to be a challenge for all nurses: teachers and assistants. Aspects of research with the construction of Nursing are related to the importance and uniqueness of nursing care during the service to human beings in health and disease conditions.¹

Among the scientific approaches in nursing, researchers have used quantitative research, qualitative and mixed methods and multiple start moving forward. Among the qualitative approaches there are the Case Study Method highlighted, in which the researcher seeks contemplation of reality in a profound way, focusing on the phenomenon of the relationship with the context.² This methodology is used in several areas of knowledge - social sciences and health - despite the criticisms that are made to it, considering that it has sufficient objectivity and rigor to be configured as a scientific research path.³⁻⁴

Existing prejudices to Case Study Method are externalized in statements such as: data can be distorted by the researcher to illustrate more effectively issues; or, the case studies take too long and end up generating inclusion of documents and reports that do not allow objectivity to data analysis.⁵ However, these issues may be present in other scientific research methods if the researcher is not trained or do not have the skills necessary to conduct scientific studies. Thus, the lack of scientific rigor is not inherent in the Case Study method, but the preparation and commitment of the professional.³

The Case Study Method has been confused with the case study pedagogical method, very common in the subjects of education, when presented a case to refer to a given situation and the students and teachers discuss the issues raised. The clinical case study is widely used in health care courses to deepen in a specific clinical situation of a patient or a group of them.

The Study Case model application proposed by Robert Yin, originally published in 1994, despite having been designed from a personal experience and a specific context in the area of Social Sciences,⁴ it offers several parameters to think about and discuss the

method and apply it in the research in nursing.

However, it is observed that while there are some studies in nursing mentioning the model proposed by Yin as a methodological framework, there is a weakness in using it correctly, justifying the need and relevance of this study which has features that make it contributory to research and the practice of nursing care. It is also justified by presenting an example of the application of the method facilitating the understanding of its technical and scientific applicability. Thus, this study aims to present a methodological model to implement a Multiple Case Study from the proposal of Yin.

METHOD

Experience report using the case study method in a Master's dissertation. The Case Study is supported by theoretical platform, bringing together the largest possible amount of information, depending on the issues and guiding the study propositions, through different information gathering techniques, data and evidence, which direct the triangulation of information, contributing for reliability and validity of research findings.³⁻⁴

The study was conducted in a Long Term Care Institutions for the Elderly (ILPI), philanthropic institution in which 60 elderly resided at the time of the study. This ILPI is located in Rio Grande do Sul, Brazil. The choice of location came from the fact that one of the researchers have worked as a nurse in that institution.

In case studies, it is difficult to investigate more than ten units of analysis.³ Thus, it was sought to find ten older people to study, through the inclusion criteria: be resident in ILPI for more than six months, submit 24 or more points on the Mini Mental State Examination (Minimental - MMSE);⁶ have fewer than three points in Falls Risk Scale,⁷ because these features directed to the elderly with lower risk for falls. Nine elderly people met the inclusion criteria and were selected for this study.

To conduct the case study, there were three different and complementary phases: the development of the research protocol, gathering evidence and categorization/classification of data collected. For analysis of the evidence in the Case Study, the standard adequacy by Yin was used.³

In the Case Study protocol is relevant achieving reliability since it provides information for the study, when repeated

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under the same conditions, getting the same results. The study protocol had the following topics: overview of research - objective, the research question, guiding readings, theoretical model; procedures used for data collection - document analysis, interviews, field observation, instrument for data collection; procedures for dealing with unforeseen during data collection; necessary resources; agenda of data collection activities; analysis plan of the collected data, distinguishing the nature of the information collected; guide for the report.³

Data collection took place in May 2012 and was conducted by members of the Study and Research Group in Gerontology and Geriatric, Nursing/Health and Education, which has as one of its research lines nursing care directed to the institutionalized elderly.

For the interview, a history of nursing elaborated from some elements of the International Classification of Disability, Functioning and Health (ICD)⁸ was applied and physical examination was conducted. The ICD classifies the functionality of human beings from the relationship between health status, functions and body structures (presence or absence of disabilities), activity (execution of a task or action by an individual), participation (involvement of an individual in a situation in real life) and contextual factors (related to environmental and personal factors).⁹

The history of nursing was composed of five parts: identification; General observations; Functions and body structures; Activity limitations and participation restrictions; Environmental factors, focusing on the present needs in the elderly surveyed. This instrument was validated initially by members of the qualification of banking dissertation project and carried out a pilot test with two elderly people living in other ILPI, after which some questions were modified.

The ethical and legal principles were considered involving research with human beings, according to Resolution 466/2012 of the Ministry of Health.¹⁰ Participants signed or put a fingerprint on the Informed Consent Form. The study was approved by the Ethics and Research of the Health Area of the Federal University of Rio Grande Committee (CEPAS/FURG), with Opinion 009/2012.

RESULTS

• Describing implementation of the method

The Multiple Case Study was used because nine elders were studied and each was

considered a case. It is necessary that the multiple case study follow a replication logic, which requires the operating statement of the universe or the entire group of potential respondents and the selection of the specific subset of respondents who will participate in the survey, considering its context.⁴

The Case Study consists of five key components: matter of study; proposition(s); analysis unit; logic that will unite the data to the propositions and criteria for interpreting the findings.³ The research question in Case Study needs to have the words “how” or “why”.³ In the developed research, the question of study was: How to propose nursing care to a group of institutionalized elderly to prevent falls, using the nursing process and the language of ICD?

Propositions in Case Study are intended to what it is wanted to answer, or refer the matter of study.³ To find the case study proposition, it was examined whether the scope of work and the study had the following proposition: The development of nursing care underpinned by the nursing process and the ICD,⁸ along the institutionalized elderly, can contribute to preventing falls. This proposition has helped to define the relevant evidence for the case study.

The unit of analysis is related to the definition of what is or what may be a case: an individual, a decision, a program, the implementation of a process, an organizational change. Thus, the definition of this analysis unit is connected to the way the study questions have been defined.³ Therefore, to correctly specify primary research questions would result in the selection of the appropriate unit of analysis. The unit of analysis of this case study was the elderly at risk of falling - phenomenon, institutionalized - context environment.

After the establishment of the unit of analysis, collecting evidence takes place. In the collection of case study data, there are six sources of evidence that can be used: documentation, files, interviews, direct observation, participant observation, and physical artifacts. None of these sources has a definite advantage over the other and their choice depends on the type of data that will need to collect to answer the research question.³

The collection of evidence was carried out in documents such as Resident medical records and other documents of ILPI; through interviews with the institutionalized elderly; non-participating observations of older people, and especially the environment of ILPI, which were recorded in the Field Diary.

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The application of multiple techniques of data collection is to direct the results to the triangulation of data, such as degree of integration and greater certainty as to the results.¹¹ All collected evidence were consistent with the described in the protocol as lined up with the research question.

After collection, it is started to establish the logical chain of evidence that has as principle, allow a reviewer/outsider, follow the evidence since the research to the latest findings of the case study.¹² For, this, the categorization and classification of data collected are needed keeping in view the initial study proposals. Although there are

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several strategies for this stage, there are two proposals: to base the analysis on theoretical propositions, organizing the data set based on them and seeking evidence of causal relationships proposed in theory; and develop a descriptive framework that helps to identify the existence of patterns of relationships between data.³

Figure 1 shows the adaptation of the methodological model used in the study of multiple cases.^{3,13}

Figure 1 shows the methodological model used in the study of multiple cases, elaborated from the proposal of Yin (2010).

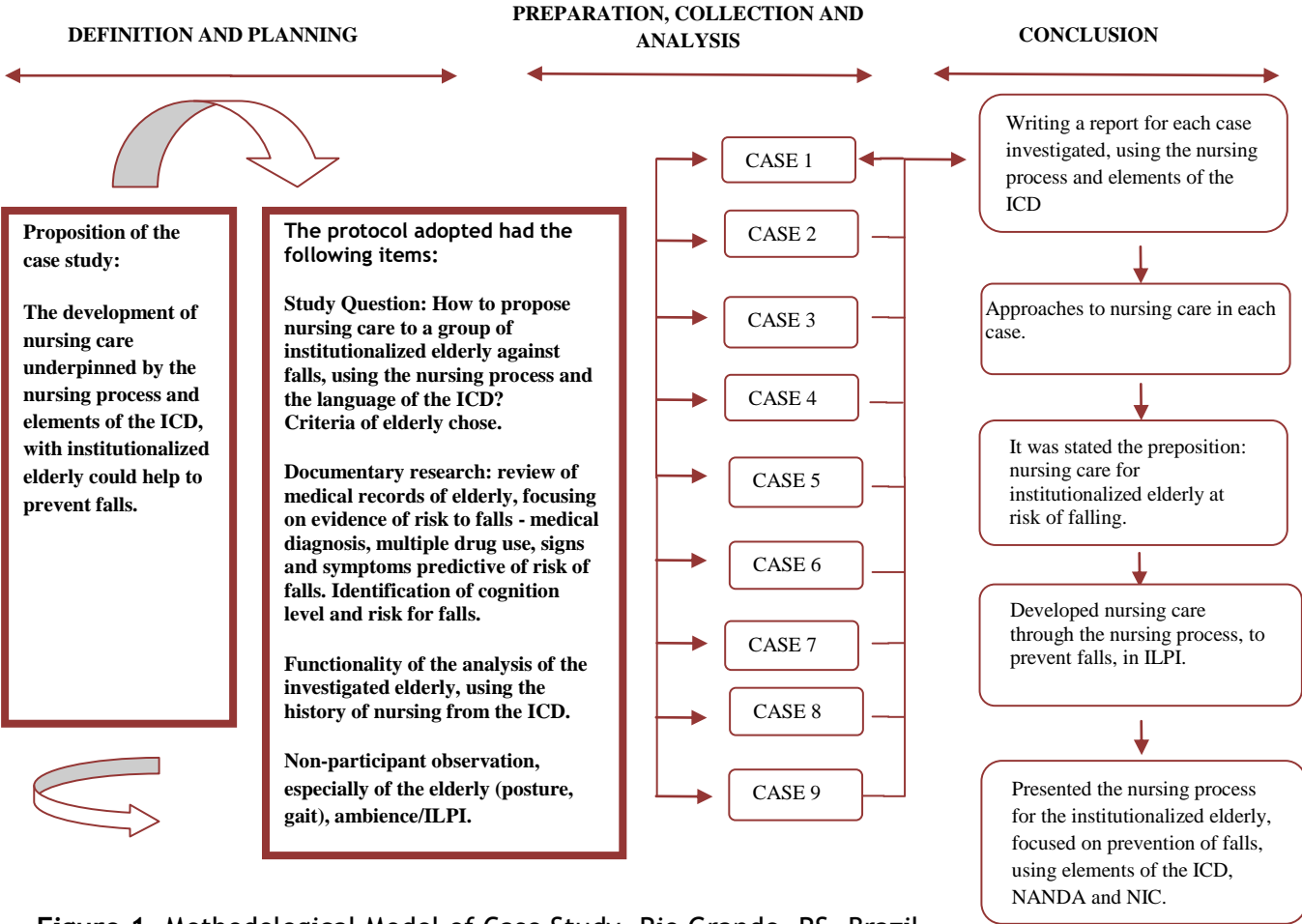


Figure 1. Methodological Model of Case Study, Rio Grande, RS, Brazil.

Source. Model produced by the authors, adapted.^{3,13}

Data in the Case Study developed, were attached to the proposition through a report containing relevant aspects of the database, showing real evidence of the researched topic and the ways in which this evidence is related to the theoretical proposition. For each case, it was held the presentation of the study elder person and elements of changed ICD were identified. Then, from the information of Nursing History and changed ICD domains, Risner Analysis Process was used,¹⁴ which was the basis for the identification of nursing diagnoses, according to the taxonomy of the North American Nursing Diagnosis Association (NANDA).¹⁵ Subsequently, the nursing interventions were established from the nursing Interventions Classification (NIC).¹⁶

Four main methods of analysis of the evidence in the case study are proposed: the adequacy standard, construction explanation, time series analysis and analysis of data from previously formulated models.³ The analysis of the cases was made by adapting the pattern in which are compared the empirical patterns found in the study with prognostic patterns, derived from theory or other evidence. If the patterns confirm the predictions and are not found alternative patterns of predicted values may be inferences relationship between events. In this type of analysis the focus can also be on competing explanations, that is identifying because the results were alike in several situations.³

The interpretation of the findings was carried out with support in bibliographies of Nursing and Gerontology and the ICD. The cases were compared and the similar ICD domains identified that showed changes in the different elderly. After, a nursing care proposal was developed for the prevention of falls in institutionalized elderly.

From the implementation of the case study, three aspects were considered for discussion: the nature of experience, as a phenomenon to be investigated; the knowledge to be achieved; and generalizability studies from the method.⁵

Depth or nature of the experience, what is condemned in the case study is just the most interesting aspect of its nature: it is epistemologically in harmony with the experience of those with it is involved and therefore for these people it is a natural basis for generalization.¹⁶ This is especially important in nursing, in which normally qualitative studies are based on the relationship between the depth and kind of lived experience, the expression of this experience and the understanding of it.

Regarding the type of knowledge that is sought, there is the difference between explanation and understanding of a phenomenon. In the Case Study method, the emphasis is on understanding, based on tacit knowledge which has a strong connection with intentionality, which does not occur when the goal is merely explanation based on propositional knowledge. Thus, when the explanation, or the search for a propositional knowledge, becomes the soul of a survey, the case study can be a disadvantage, but when the goal is understanding, expanding the experience beyond the research, disadvantage disappears.^{5,17}

As for the possibility of generalizing from the Case Study method, it is important to reflect what a case is.¹⁷ To think in a case like a single member of a given population, with little or no ability to representation, it provides little basis for generalization. However, a case is defined as a unit of analysis, which can be an individual, the role played by an individual or an organization, a small group, a community or even a nation, an event occurring in a given period, or phenomenon that occurs in a given location.³ A case can be a simple or complex phenomenon, but to be considered case, it must present specificities.^{5,17}

CONCLUSION

The objective of this report experience was achieved through the presentation of a methodological model Case Study according to Yin, from a Master's dissertation. In this dissertation, the methodological approach outlined from the Multiple Case Study for the creation of a proposal for nursing care for institutionalized elderly at risk of falling proved to be of great value to achieve the research objectives.

The development of research from the method proposed by Yin constitutes a strategy that can be used by researchers who wish to study a phenomenon in its real context and on which have little control over events and demonstrations. From the use of various sources of evidence, the researcher can reflect on the phenomenon and its relation to a given context/environment, seeking alternatives to the problem he is solving.

The Case Study methodology requires organization and researcher planning for its implementation. The use of this method may be another option for researchers in nursing and may contribute to the care and the practice of this discipline through the improvement of knowledge in this area.

REFERENCES

1. Silva RS, Pereira A, Ribeiro AG, Marinho CMS, Carvalho IS, Ribeiro R. Elaboração de um instrumento para coleta de dados de paciente crítico: histórico de enfermagem. Rev Enferm UERJ [Internet]. 2012 [cited 2012 Nov 20];20(2):267-73. Available from: <http://www.e-publicacoes.uerj.br/index.php/enfermagemuerj/article/view/1552/2870>
2. Almeida CE, Enokibara MP, Ribeiro DA, Sampaio CEP. The nurse's assistance associated to their prescription on a heart surgery unit. Rev Pesqui Cuid Fundam Online [Internet]. 2012 [cited 2012 Nov 20];4(3):2510-20. Available from: <http://www.seer.unirio.br/index.php/cuidadofundamental/article/viewArticle/1774>
3. Yin RK. Estudo de caso: planejamento e métodos. Tradução Ana Thorell; revisão técnica Cláudio Damacena. 4. ed. Porto Alegre: Bookman; 2010.
4. Martins GA. Estudo de caso: uma reflexão sobre a aplicabilidade em pesquisas no Brasil. Rev Contabilidade e Organizações [Internet]. 2008 [cited 2012 Nov 20];2(2):8-18. Available from: <http://www.revistas.usp.br/rco/article/viewFile/34702/37440>

Gautério-Abreu DP, Ávila JÁ de, Santos SSC et al.

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5. Cesar AMR, Antunes MTP, Vidal PG. Método do estudo de caso em pesquisas da área de contabilidade: uma comparação do seu rigor metodológico em publicações nacionais e internacionais. *Rev Inform Contábil* [Internet]. 2010 [acesso 20 jun 2012];4(4):42-64. Disponível em: <http://www.revista.ufpe.br/ricontabeis/index.php/contabeis/article/viewFile/247/188>
6. Pinho TAM, Silva AO, Tura LFR, Moreira MASP, Gurgel SN, Smith AF et al. Assessing the risk of falls for the elderly in basic health units. *Rev Esc Enferm USP* [Internet]. 2012 [cited 2013 Feb 20];46(2):320-7. Available from: <http://www.scielo.br/pdf/reeusp/v46n2/a08v46n2.pdf>
7. Dias M, França M, Almeida MB, Dias KM, Moreno ML et al. Mini-exame do estado mental: em busca do conhecimento da alteração da cognição do idoso na zona oeste do município do Rio de Janeiro. *Rev Pesqui Cuid Fundam Online* [Internet]. 2010 [cited 2012 Nov 20];2(Supl 1):944-7. Available from: http://www.seer.unirio.br/index.php/cuidadofundamental/article/view/1191/pdf_337
8. Organização Mundial da Saúde, CIF: Classificação Internacional de Funcionalidade, Incapacidade e Saúde. São Paulo: EDUSP; 2003.
9. Riberto M. Core sets da classificação internacional de funcionalidade, incapacidade e saúde. *Rev Bras Enferm* [Internet]. 2011 [cited 2014 Jan 20];64(5):938-46. Available from: <http://www.scielo.br/pdf/reben/v64n5/a21v64n5.pdf>
10. Brasil. Conselho Nacional de Saúde. Diretrizes e normas regulamentadoras de pesquisa em seres humanos. Resolução nº 466, de 12 de dezembro de 2012.
11. Driessnack M, Sousa VD, Mendes IAC. Revisão dos desenhos de pesquisa relevantes para enfermagem: Parte 3: Métodos mistos e múltiplos. *Rev Latino-Am Enferm* [Internet]. 2007 [citado 20 Nov 2012];15(5):1046-9. Disponível em: <http://www.redalyc.org/articulo.oa?id=281421877025>
12. Oliveira M, Maçada ACG, Goldoni V. Forças e fraquezas na aplicação do estudo de caso na área de sistemas de informação. *Rev Gestão USP* [Internet]. 2009 [cited 2012 Nov 20];6(1):33-49. Disponível em: <file:///C:/Users/Microsoft%20User/Downloads/36660-43197-1-PB.pdf>
13. Ávila JA. Funcionalidade da pessoa idosa institucionalizada com riscos de quedas: proposta de cuidado de enfermagem. 172f. (Dissertação). Escola de enfermagem.

Programa de Pós-Graduação em Enfermagem, Universidade Federal do Rio Grande, Rio Grande/RS, Brasil; 2012.

14. Risner PB. Diagnosis and synthesis of data. In: Christensen PJ, Kenney JW, editors. *Nursing process: application of conceptual models*. 3rd ed. St. Louis: Mosby; 1990. p. 132-57.
15. North American Nursing Diagnosis Association (NANDA). *Diagnóstico de Enfermagem da NANDA: definições e classificação 2009-2011*. Porto Alegre: Artmed; 2010.
16. Dochtermann JM, Bulechek GM. *Classificação das Intervenções de Enfermagem*. 4th ed. Porto Alegre: Artmed; 2008.
17. Stake RE. The case study method in social inquiry. In: Denzin NK, Lincoln YS. *The American tradition in qualitative research*. California: Sage Publications; 2001.

Submission: 2015/11/25

Accepted: 2016/01/10

Publishing: 2016/03/01

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