

## Assessment of nursing consultations for tuberculosis patients at primary health care

Déborah Raquel Carvalho de Oliveira<sup>1</sup>, Bertha Cruz Enders<sup>2</sup>,  
Caroline Evelin Nascimento Kluczynick Vieira<sup>3</sup>, Larissa Soares Mariz<sup>4</sup>

<sup>1</sup> Nurse, Master in Nursing. Student of the Nursing Graduate Program, Doctoral level, at Universidade Federal do Rio Grande do Norte (UFRN). Natal, RN, Brasil. E-mail: [deborahrco@hotmail.com](mailto:deborahrco@hotmail.com).

<sup>2</sup> Nurse, Ph.D in Nursing. Collaborator Professor of the Nursing Graduate Program at UFRN. Natal, RN, Brazil. E-mail: [bertha@ufrnet.br](mailto:bertha@ufrnet.br).

<sup>3</sup> Nurse, Master in Nursing. Student of the Nursing Graduate Program, Doctoral level, at UFRN. Natal, RN, Brazil. E-mail: [carolinekluczynick@gmail.com](mailto:carolinekluczynick@gmail.com).

<sup>4</sup> Nurse, Master in Nursing. Student at the Nursing Graduate Program, Doctoral level, at UFRN. Natal, RN, Brazil. E-mail: [larissamariz@gmail.com](mailto:larissamariz@gmail.com).

Received: 10/30/2014.

Accepted: 08/12/2015.

Published: 03/31/2016.

### Suggested citation:

Oliveira DRC, Enders BC, Vieira CENK, Mariz LS. Assessment of nursing consultations for tuberculosis patients at primary health care. Rev. Eletr. Enf. [Internet]. 2016 [cited \_\_/\_\_/\_\_];18:e1153. Available from: <http://dx.doi.org/10.5216/ree.v18.32593>.

### ABSTRACT

The study objective was to assess nursing consultation for tuberculosis patients. A descriptive, quantitative study, conducted in a Brazilian northeast city, with 60 from primary health care nurses. A questionnaire based on the nursing consultation protocol was used with tuberculosis patients from the Health Ministry. Data collection elements were more addressed, in case of overvaluing complaints during anamnesis and physical exam (100% always investigated it) and weight measurement (96.8% conducted it). The nursing diagnosis, planning, implementation, and assessment therapeutic plan assessment were not completely conducted and, sociocultural aspects were underestimated. This fragmentation can contribute with the deficiency in operationalization of the Tuberculosis Control Plan. If scientifically and technologically amplified, Nursing Consultation can favor the development of health programs and minimize barriers permeating Tuberculosis control.

**Descriptors:** Nursing Care; Primary Health Care; Tuberculosis.

### INTRODUCTION

The Nursing Consultation (NC) is an important work tool for nurses; it uses scientific methods components for a systematic nursing assistance<sup>(1-3)</sup>.

The NC should be developed in all health locations with nursing assistance<sup>(1)</sup>. The nurse should develop it systematically and one of the ways for Systematic Nursing Assistance (SNA) is the Nursing Process (NP)<sup>(4)</sup>.

A study conducted in England<sup>(5)</sup> described the systematized NC, with therapeutic plan assessment, patient's life investigation and guidance about the treatment conduct, values patient's sociocultural factors,

and in addition, starts to be an instrument capable to assure access to health services and continuity of a determined treatment.

Within the Primary Health Care (PHC), one of the programs conducted by nurses is the Tuberculosis (TB) Control Program. In this process, treatment abandonment of patients have been considered one of the main barriers in this control and, it can be related to socioeconomic conditions, as low education level, alcoholism, use of drugs, besides fragmented relationships with the health service attending this patient<sup>(6)</sup>.

According with the Nursing Protocol for Directly Observed Treatment (DOT) of Tuberculosis in the Primary Health Care of the Health Ministry (HM), Nursing Consultation configures a care instrument. The NP steps should be followed: identification of client's health problems or data collection (with anamnesis and physical exam), design of the Nursing Diagnoses (NDs), planning and implementation of actions, and plan assessment<sup>(7)</sup>.

Despite of the HM guidelines and the COFEN standardizations about NC being known, studies addressing nursing care for TB patients registers that care involve active searching actions and medicine treatment, but those are not centered in an integral care<sup>(8-10)</sup>.

One has to think about the process that nurses use to conduct the consultation for TB patients. It is believed that when systematized and focused on the patient<sup>(5)</sup>, this consultation does not only offers an opportunity to establish a bond, but allows to know better the individual and his difficulties for planning and development of accompaniment actions.

The NC should be scientifically grounded in a broad clinical view, and to involve the aggregation of scientific knowledge and its own competencies. In the United Kingdom, for example, it is seen that patients present apprehension in consultations with nurses, questioning their scientific knowledge and actions when conducting treatments<sup>(11)</sup>.

Thus, professionals need to advance in the perspective to use the NP to systematize nursing assistance. It is relevant to understand that NP involves specific steps. In contrary, Nursing will ground its care in a limited and fragmented knowledge.

Despite of the growth in discussions and publications about SNA and NP, especially from the 70s decade, there are registers of studies in the literature that in majority showing NP implementation and experience use at secondary and tertiary levels of health attention in Brazil<sup>(12)</sup>, being few the publications in services of primary health care.

For example, the Portuguese reality is cited and described as a flaw, once the reality of health services in Portugal almost does not observe nursing registers in agreement with the NP<sup>(13)</sup>.

The importance for nurses to use NP instruments in the Primary Health Care is recognized, strengthening the bond between professional/user as well as a welcoming and humanized assistance<sup>(14)</sup>.

The question arise: Which Nursing Process elements are developed by the nurse when conducting a nursing consultation with TB patients?

Thus, the objective of this study was to assess elements from Nursing Consultation with TB patients at

the Primary Health Care.

The identification of these elements on the nursing practice can elucidate until which point these professionals consider scientific principals inherent to nursing competencies for NP development at Primary Care.

## METHODS

A descriptive and quantitative study. It is part of a broader study entitled: “The practice of primary health care nurses in consultations with tuberculosis patients”. It was developed at Primary Health Care units from a city at the Brazilian northeast region.

The population was composed by 156 nurses acting in PHC units. A sample of 60 nurses was defined through sample calculation for finite populations<sup>(15)</sup> and proportionally stratified between the five sanitary districts from the City: North I, North II, East, West and South. Thus, the nursing representation was defined as: North I – 13; North II – 14; East – 7; West – 15; and South – 11.

The selection criterion was nurses those who were consulting TB patients during the data collection. We excluded nurses who referred to have never consulted a TB patient.

The selection was accidental in each district. Health units pertaining to each district were visited for nursing identification when they met the selection criterion until reaching the number of subjects for that district.

For data collection, we used a structured questionnaire, developed from guidelines in the Nursing Protocol for the Directly Observed Tuberculosis Treatment in Primary Care, from the Health Ministry<sup>(7)</sup>.

Besides professional characteristic questions, the questionnaire had 35 questions about the frequency that nurses had actions related to NP during consultation with TB patients. We investigated variables referring to the following nursing actions: patient’s anamnesis; physical exam; planning of actions; implementation of therapeutic plan and, assessment of obtained results. The answers were given as options 1 “Always”, 2 “Sometimes” and 3 “Never”.

The questionnaire was submitted to pre-test with three primary care nurses to assess the apparent content and to confirm the comprehension caused by its application. After the pre-test, there were small changes in terms used in the instrument, in a way to avoid wrong interpretations in proposed questions. Questionnaires were used during pre-test and it was not part of the study sample.

The data collection was during September to October of 2014. Once identified as possible subjects, the nurses were previously contacted to verify their availability and adequate time to answer the questionnaire. Questionnaires were completed and returned right after to the researcher.

The principal investigator and nursing students enrolled in the 4<sup>o</sup>, 6<sup>o</sup> and 8<sup>o</sup> periods conducted the data collection. It is important to highlight that all students were trained to approach to participants, questionnaire application and, the importance of reading and signing the Free and Informed Consent Term.

The study was authorized by the Ethics in Research Committee from the Universidade Federal do Rio

Grande do Norte, in consonance with the current legislation<sup>(16)</sup>, under the register nº 31266314.9.0000.5537.

Descriptive statistics was used to analyze the data using the IBM Program SPSS 20.0, and presented as relative frequencies.

## RESULTS

Regarding the subject's professional characteristics, 66.1% worked in Family Health Units, 22.6% in Basic Health Units and, 8.1% worked in mixed health units.

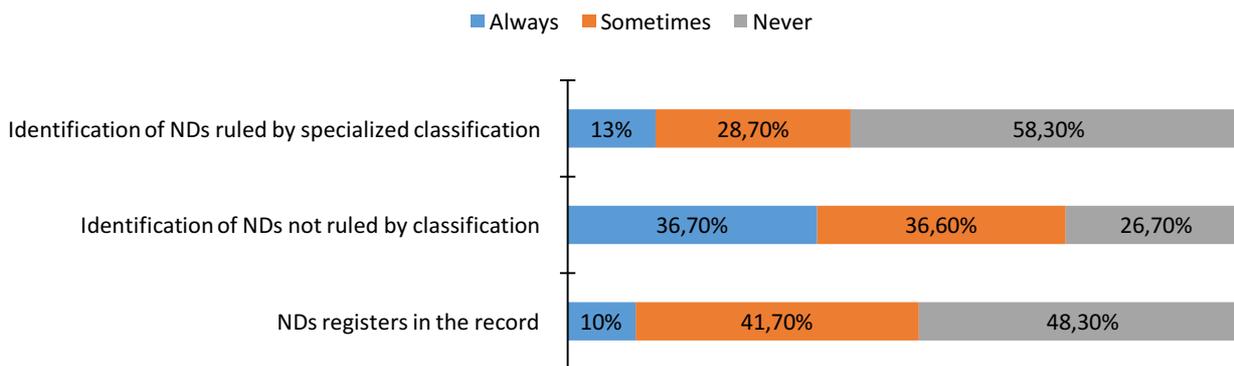
Actions developed in nursing consultations with TB patients were assessed in accordance with the NP and its elements: data collection/investigation; ND's survey; planning of actions; implementation; and assessment. Within these elements, items considered by the Health Ministry were addressed to compose the nursing consultation for TB patients.

Regarding the data collection elements, the Table 1 demonstrates elements addressed and the frequency of their use by nurses in consultations with TB patients.

**Table 1:** Investigation elements of health problems of patients addressed by PHC nurses in consultations with tuberculosis patients (n=60). Natal, RN, Brazil, 2014.

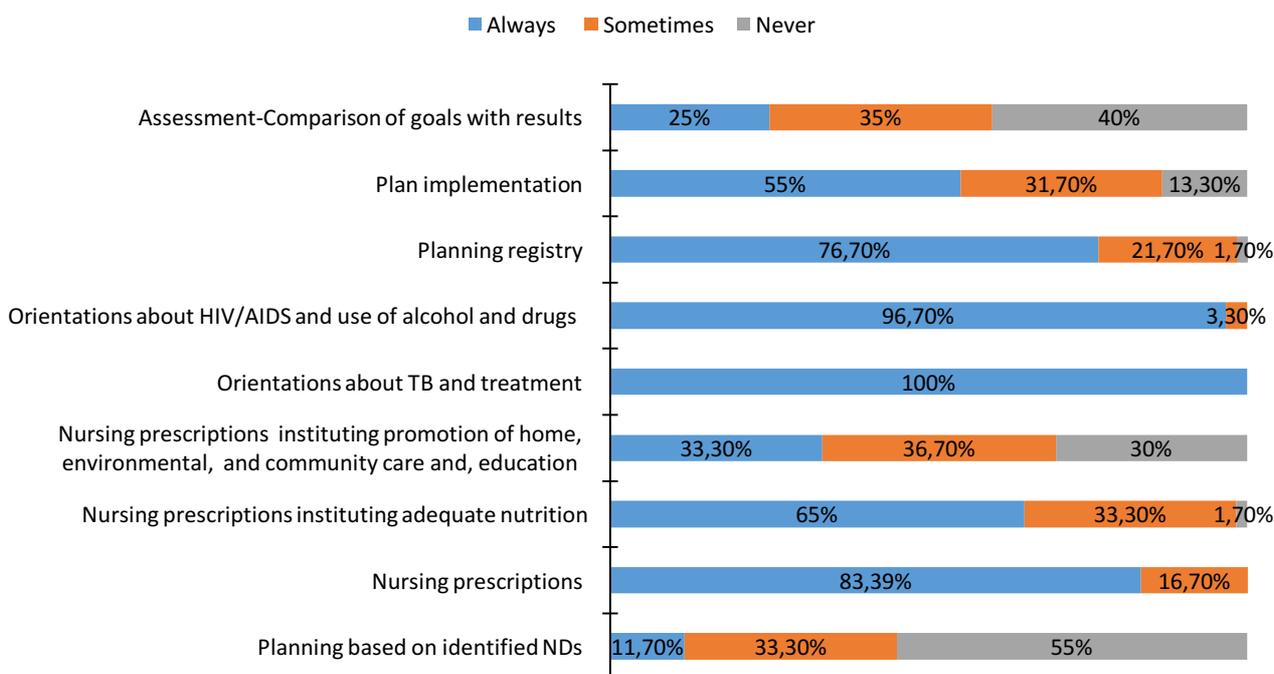
Variables	Frequency		
	Always %	Sometimes %	Never %
<b>Anamnesis performance</b>	100	-	-
Survey of complaints	100	-	-
Survey of disease symptoms	93.3	6.7	-
Survey of clinical, epidemiological and psychosocial aspects	36.7	51.7	11.7
Survey of eating patterns	98.3	1.7	-
Survey of previous TB history	80.0	20.0	-
Survey of TB family history	81.7	18.3	-
Survey of living conditions	26.7	73.3	-
Survey of alcohol use/illicit drugs and other substances	95.0	5.0	-
Survey of treatment abandonment history	71.7	28.3	-
Survey of suffering related to disease stigma/prejudice	20.0	36.7	43.3
Survey of work routine changes caused by the disease	18.3	46.7	35.0
Exams request	63.3	36.7	-
Assessment of previous exams to identify the actual disease state	40.0	38.3	21.7
<b>Physical exam performance</b>	65.0	35.0	-
General skin inspection	68.3	31.7	-
Assessment of skin turgor	40.0	38.3	21.7
Weight measurement	100	-	-
Mucous inspection	46.7	43.3	10.0
Assessment of the respiratory frequency	45.0	40.0	15.0
Thoracic and cardiac auscultation	33.3	40.0	26.7
Thoracic percussion	16.7	38.3	45.0
<b>Anamnesis and physical exam registry in the medical record</b>	68.3	31.7	-

About nursing diagnostics survey during the NC with TB patients, we observed the following results, as in the Figure 1:



**Figure 1:** Survey elements of nursing diagnosis conducted by nurses from PHC in the consultation with tuberculosis patients (n=60). Natal, RN, Brazil, 2014.

The elements of planning of actions, implementation and, assessment of the care plan are presented on Figure 2.



**Figure 2:** Elements related to action planning, implementation and assessment of the care plan conducted by nurses in the NC with TB patients (n=60). Natal, RN, Brazil, 2014.

## DISCUSSION

Regarding attention to tuberculosis patients, the Health Ministry<sup>(7)</sup> recommends the NP to be conducted in nursing consultations with TB patients, which in our study, it presented a fragmentation considering that only few elements of this method was executed in the nursing practice at PHC.

About the data collection elements (Table 1), nurses affirmed they conducted anamnesis (or interview), but this anamnesis was directed to the survey of physical complaints of patients. Other aspects

as the investigation of patient's suffering related to disease and its stigma and other sociocultural aspects were less approached.

Thus, Nursing Consultation should be an instrument capable of addressing not only specific needs, but it should be a space to face other daily demands, as in the case of stigmas and cultural barriers permeating some diseases, for example, TB, hanseniasis, which within the Control Program in the PHC, it demands care fragmentation<sup>(17)</sup>.

Overvaluation of physical and biological aspects comes from the roots of a traditional model that permeates attention to human health, where the priority is given from the patient's biological and physical aspects<sup>(18)</sup>.

It should be highlighted that to posteriorly identify patient's problems to formulate NDs and to make decisions, recognition of a whole group of necessary data that exists surrounding the patient should exist, that is, all existing evidence should be identified from the data collection about the patient's health problem<sup>(19)</sup>.

Other preconized programs in the PHC, as women and children's health, also points that nurses have difficulties in their consultations, recognizing the need of greater training and that health education is understood as health information<sup>(3)</sup>.

Regarding the physical exam, it was observed that some methods were left on the side by nurses, overall the auscultation and the thoracic percussion. This can be related to some difficulty in promoting a broaden clinic by nurses. Some actions, as a more detailed physical exam is linked to the medical exam, which culminates in a reproduction of a hegemonic model<sup>(20)</sup>.

The TB patient, pulmonary in special, should have attention concentrated in their lower respiratory system. The thoracic auscultation constitutes an important assessment tool for the patient's health status, including the identification of possible aggravations.

The elements related to NDs identification, planning of actions, implementation and assessment, are presented with greater fragmentation in the NP during nursing consultations.

The NDs for example, were pointed as a minority as being identified according with the Nursing specialized classification. Another part of subjects affirmed to identify them, without a basis in a proper taxonomy.

Nursing diagnoses should be identified in a way to start the process of clinical judgment of TB patients and, according to the Health Ministry, they should be identified based on the NANDA taxonomy, due to its recognized clinical utility in nursing practice<sup>(7)</sup>.

It is important to note that although the NANDA taxonomy arise as preconized by the HM and it is the classification that most appear in the literature to identify NDs<sup>(21)</sup>, the International Classification of Clinical Practices in Collective Health (CIPESC)<sup>(22)</sup> represents an important tool in the PHC.

In this sense, there is a need to identify nursing practices in the PHC and to deepen this practice with methodological tools of nursing work, as nursing classifications, aimed to allow a standardized language for

nursing care<sup>(20)</sup>.

Beyond the non-identification of nursing diagnoses, NDs registry was not done on patient's records, constituting a flaw in the systematization of consultations, because it harm guidelines proposed by the Nursing Federal Council, which determined that registries of all steps should be done in the records.

In the presented study, according to the Graphs 01 and 02, because nurses did not did the survey of NDs for TB patients, they did not always conducted the planning of actions based on NDs. They performed nursing prescriptions directed to the patient's disease, but they did not invest in prescriptions aimed at the community where this patient was inserted, neither the health education.

In this sense, it is necessary to remember that health education as well as instituting home care promotion can be factors for access and continuity for determined treatment, because they increase the bond with the professional<sup>(5)</sup>.

The implementation of the conjunct therapeutic plan, as well as the assessment of results, are also presented in a fragmented way, what compromises the attention to this patient, because it inhibits a reassessment of conducts directed to it, and, having in sight the insertion in contexts that allow an inconsistency in its treatment, it can culminate in treatment abandonment<sup>(10)</sup>.

In a sense of not using the NP in the nursing practice, it is noted that some factors contributes to it, within them, the deficit in NP knowledge, and large demands in services<sup>(23)</sup>.

It is also highlighted the need of compromise from managements and supervisions with the professional action so that NP is incorporated to nursing practice. The permanent education is a facilitator strategy for NP development by nurses, because it broadens the theoretical knowledge about its elements, especially because as seen in a study, most nurses have a long period since their graduation, and this is a factor that reflects in the theoretical and practical lack of prepare for NP development<sup>(23)</sup>.

## CONCLUSION

A fragmentation in the process for Nursing Consultation with tuberculosis patients was seen in the study, where some NP elements were emphasized during consultations, as anamnesis and physical exams aspects, in detriment of the nursing diagnoses survey, planning, implementation and, assessment.

Regarding nursing diagnoses, they were pointed as being brought up in few moments without using the specialized classification. However, it is not known how this diagnosis occurred, once it was not explored the way of how it was done and if it was scientifically founded. This could configure a study limitation. Besides, the fact that nurses emitted answers to questions cannot translate the reality of some points registered in the record.

Results found also allow a reflection of a practice fragmented in nursing consultations that can contribute with deficiency in the operationalization of the Tuberculosis Control Plan. The Nursing Consultation, if scientifically and technologically amplified, can favor the development of health programs and the minimization of barriers permeating Tuberculosis control.

Other studies should be conducted to verify the Nursing Consultation in other populations, considering that the nursing process is secured as a right and obligation in the nursing practice.

## REFERENCES

1. Resolução COFEN 358/2009 (BR) [Internet]. Dispõe sobre a Sistematização da Assistência de Enfermagem e a implementação do Processo de Enfermagem em ambientes, públicos ou privados, em que ocorre o cuidado profissional de Enfermagem, e dá outras providências. COFEN. 15 out 2009 [cited 2016 mar 31]. Available from: [http://www.cofen.gov.br/resoluco-cofen-3582009\\_4384.html](http://www.cofen.gov.br/resoluco-cofen-3582009_4384.html).
2. Oliveira SKP, Queiroz APO, Matos DPM, Moura AF, Lima FET. Temas abordados na consulta de enfermagem: revisão integrativa da literatura. *Rev Bras Enferm* [Internet]. 2012 [cited 2016 mar 31];65(1):155-61. Available from: <http://dx.doi.org/10.1590/S0034-71672012000100023>.
3. Campos RMC, Ribeiro CA, Silva CV, Saporoli ECL. Consulta de enfermagem em puericultura: a vivência do enfermeiro na Estratégia de Saúde da Família. *Rev Esc Enferm USP* [Internet]. 2011 [cited 2016 mar 31];45(3):566-74. Available from: <http://dx.doi.org/10.1590/S0080-62342011000300003>.
4. Barros ALBL, Lopes JL. A legislação e a sistematização da assistência de enfermagem. *Enfermagem em Foco* [Internet]. 2010 [cited 2016 mar 31];1(2):63-5. Available from: <http://revista.portalcofen.gov.br/index.php/enfermagem/article/view/17>.
5. Stenner KL, Courtenay M, Carey N. Consultations between nurse prescribers and patients with diabetes in primary care: A qualitative study of patient views. *Int J Nurs Stud* [Internet]. 2011 [cited 2016 mar 31];48(1):37-46. Available from: <http://dx.doi.org/10.1016/j.ijnurstu.2010.06.006>.
6. Chirinos NEC, Meirelles BHS. Fatores associados ao abandono do tratamento da tuberculose: uma revisão integrativa. *Texto Context - Enferm* [Internet]. 2011 [cited 2016 mar 31];20(3):399-406. Available from: <http://dx.doi.org/10.1590/S0104-07072011000300023>.
7. Ministério da Saúde. Tratamento Diretamente Observado (TDO) da Tuberculose na Atenção Básica: Protocolo de Enfermagem [Internet]. Brasília: Ministério da Saúde; 2011 [cited 2016 mar 31]. Available from: [http://bvsmis.saude.gov.br/bvs/publicacoes/tratamento\\_diretamente\\_observado\\_tuberculose.pdf](http://bvsmis.saude.gov.br/bvs/publicacoes/tratamento_diretamente_observado_tuberculose.pdf).
8. Sá LD, Oliveira AAV, Gomes ALC, Nogueira JA, Villa TCS, Collet N.aring for tuberculosis patients in the Family Health Strategy: the nurses' perceptions. *Rev Esc Enferm USP* [Internet]. 2012 [cited 2016 mar 31];46(2):356-63. Available from: <http://dx.doi.org/10.1590/S0080-62342012000200013>.
9. Barrêto AJR, Evangelista ALF, Sá LD, Almeida SA, Nogueira JA, Lopes AMC. Gestão do cuidado à tuberculose: da formação à prática do enfermeiro. *Rev Bras Enferm* [Internet]. 2013 [cited 2016 mar 31];66(6):847-53. Available from: <http://dx.doi.org/10.1590/S0034-71672013000600006>.
10. Alves RS, Souza KMJ, Oliveira AAV, Palha PF, Nogueira JA, Sá LD. Tuberculosis treatment abandonment and comprehensive health care to patients in the family healthcare strategy. *Texto Context - Enferm* [Internet]. 2012 [cited 2016 mar 31];21(3):650-7. Available from: <http://dx.doi.org/10.1590/S0104-07072012000300021>.
11. Rashid C. Benefit sand limitations of nurses taking on aspects of the clinical role of doctors in primary care: integrative literature review. *J Adv Nurs* [Internet]. 2010 [cited 2016 mar 31];66(8):1658-70. Available from: <http://dx.doi.org/10.1111/j.1365-2648.2010.05327.x>.
12. Cavalcante RB, Otoni A, Bernardes MFVG, Cunha SGS, Santos C da S, Silva PC da. Experiências de sistematização da assistência de enfermagem no Brasil: um estudo bibliográfico. *Revista de Enfermagem da UFSM* [Internet]. 2011 [cited 2016 mar 31];1(3):461-71. Available from: <http://dx.doi.org/10.5902/217976922832>.
13. Silva MA, Graveto J. Modelo Conceptual Versus “Modelo Oculto” para a (na) Prática da Enfermagem. *Pensar Enfermagem* [Internet]. 2008 [cited 2016 mar 31];12(2):67-70. Available from: [http://pensarenfermagem.esel.pt/files/2008\\_12\\_2\\_67-70.pdf](http://pensarenfermagem.esel.pt/files/2008_12_2_67-70.pdf).
14. Varela GC, Fernandes SCA. Conhecimentos e práticas sobre a sistematização da assistência de enfermagem na Estratégia Saúde da Família. *Cogitare Enferm* [Internet]. 2013 [cited 2016 mar 31];18(1):124–30. Available from: <http://dx.doi.org/10.5380/ce.v18i1.31317>.
15. Barbetta PA, Reis MM, Bornia AC. Estatística para Cursos de Engenharia e Informática. 3ª ed. São Paulo: Atlas; 2010.
16. Resolução Nº 466 do Conselho Nacional de Saúde, de 12 de dezembro de 2012 (BR). Aprova as diretrizes e normas  
Rev. Eletr. Enf. [Internet]. 2016 [cited \_\_/\_\_/\_\_];18:e1153. Available from: <http://dx.doi.org/10.5216/ree.v18.32593>.

- regulamentadoras de pesquisas envolvendo seres humanos. Diário Oficial da União. 12 dez 2012 [cited 2016 mar 31]. Available from: [http://bvsms.saude.gov.br/bvs/saudelegis/cns/2013/res0466\\_12\\_12\\_2012.html](http://bvsms.saude.gov.br/bvs/saudelegis/cns/2013/res0466_12_12_2012.html).
17. Duarte MTC, Ayres JA, Simonetti JP. Consulta de enfermagem: estratégia de cuidado ao portador de hanseníase em atenção primária. *Texto Context - Enferm* [Internet]. 2009 [cited 2016 mar 31];18(1):100-7. Available from: <http://dx.doi.org/10.1590/S0104-07072009000100012>.
18. Souza KMJ, Sá LD, Palha PF, Nogueira JA, Villa TCS, Figueiredo DA. Abandono do tratamento de tuberculose e relações de vínculo com a equipe de saúde da família. *Rev Esc Enferm USP* [Internet]. 2010 [cited 2016 mar 31];44(4):904-10. Available from: <http://dx.doi.org/10.1590/S0080-62342010000400007>.
19. Bittencourt GKGD, Crossetti MGO. Critical thinking skills in the nursing diagnosis process. *Rev Esc Enferm USP* [Internet]. 2013 [cited 2016 mar 31];47(2):341-7. Available from: <http://dx.doi.org/10.1590/S0080-62342013000200010>.
20. Matumoto S, Fortuna CM, Kawata LS, Mishima SM, Pereira MJB. Nurses' clinical practice in primary care: a process under construction. *Rev Lat Am Enfermagem* [Internet]. 2011 [cited 2016 mar 31];19(1):123-30. Available from: <http://dx.doi.org/10.1590/S0104-11692011000100017>.
21. North American Nursing Diagnosis Association. Diagnósticos de enfermagem da NANDA: definições e classificação 2009-2011. 1ª engl. ed. Garcez RM, translator. Porto Alegre: Artmed; 2010.
22. Cubas MR, Egry EY. Classificação Internacional de Práticas de Enfermagem em Saúde Coletiva - CIPESC®. *Rev Esc Enferm USP* [Internet]. 2008 [cited 2016 mar 31];42(1):181-6. Available from: <http://dx.doi.org/10.1590/S0080-62342008000100024>.
23. Menezes SRT, Priel MR, Pereira LL. Autonomia e vulnerabilidade do enfermeiro na prática da Sistematização da Assistência de Enfermagem. *Rev Esc Enferm USP* [Internet]. 2011 [cited 2016 mar 31];45(4):953-8. Available from: <http://dx.doi.org/10.1590/S0080-62342011000400023>.