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NOTE PREVIEW ARTICLE

DEVELOPMENT OF A NURSING CONSULTATION SUPPORT TOOL TO AMPUTATED PEOPLE: METHODOLOGICAL STUDY

DESENVOLVIMENTO DE INSTRUMENTO DE APOIO PARA A CONSULTA DE ENFERMAGEM A PESSOAS AMPUTADAS: ESTUDO METODOLÓGICO

DESARROLLO DE INSTRUMENTO DE APOYO PARA LA CONSULTA DE ENFERMERÍA A PERSONAS AMPUTADAS: ESTUDIO METODOLÓGICO

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ABSTRACT

Objective: to design Nursing consultation support tool (NCST) for people amputated due to complications of Diabetes Mellitus. **Method:** a quantitative, transversal study, methodological type, to be developed in four stages: 1) survey of NCST requirements, through an integrative review; 2) preparation of the NCST; 3) consult nurses with expertise in rehabilitation - to analyze NCST requirements; 4) validation of the NCST, the degree of agreement issued by specialists regarding the items of the instrument will be evaluated, using the Content Validation Method and Likert scale. The data will be entered into the Excel 2010 table and will be processed statistically by the Statistical Package for the Social Sciences 20.0. **Results:** it is hoped to obtain an instrument to support decision-making for nurses in the area of Rehabilitation Nursing that allows the technological innovation of care. **Descriptors:** Diabetes Mellitus; Nursing Process; Amputation; Practice Guideline; Quality of Life.

RESUMO

Objetivo: conceber um instrumento de apoio para a consulta de Enfermagem (IACE) a pessoas amputadas devido a complicações da Diabetes Mellitus. **Método:** estudo quantitativo, transversal, tipo metodológico, a ser desenvolvido em quatro etapas: 1) levantamento dos requisitos do IACE, por meio de revisão integrativa; 2) elaboração do IACE; 3) consulta a enfermeiros com expertise em reabilitação para a análise dos requisitos do IACE; 4) validação do IACE, será avaliado o grau de concordância emitido por especialistas quanto aos itens do instrumento, utilizando-se o Método de Validação de Conteúdo e escala de Likert. Os dados serão digitados em tabela do Excel 2010 e sofrerão tratamento estatístico pelo Programa Statistical Package for the Social Sciences 20.0. **Resultados:** espera-se obter um instrumento de apoio à tomada de decisão para enfermeiros da área da Enfermagem em Reabilitação que permita a inovação tecnológica do cuidado. **Descritores:** Diabetes Mellitus; Amputação; Processos de Enfermagem; Guia de Prática Clínica; Qualidade de Vida.

RESUMEN

Objetivo: concebir un instrumento de apoyo para la consulta de Enfermería (IACE) a personas amputadas debido a complicaciones de la Diabetes Mellitus. **Método:** estudio cuantitativo, transversal, tipo metodológico, a ser desarrollado en cuatro etapas: 1) levantamiento de los requisitos del IACE, por medio de revisión integrativa; 2) elaboración del IACE; 3) consulta a enfermeros con experiencia en rehabilitación - para el análisis de los requisitos del IACE; 4) validación del IACE, se evaluará el grado de concordancia emitido por especialistas cuanto a los ítems del instrumento, utilizando el Método de Validación de Contenido y escala de Likert. Los datos serán digitados en tabla de Excel 2010 y sufrirán tratamiento estadístico por el Programa Statistical Package for the Social Sciences 20.0. **Resultados:** se espera obtener un instrumento de apoyo a la toma de decisión para enfermeros del área de la Enfermería en Rehabilitación que permita la innovación tecnológica del cuidado. **Descriptores:** Diabetes Mellitus; Procesos de Enfermería; Amputación; Guía de Práctica, Calidad de Vida.

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INTRODUCTION

Diabetes Mellitus is one of the major causes of amputation of lower limbs of non-traumatic origin, contributing to amputation even when the first cause appears to be traumatic.¹⁻³ People amputated due to complications of Diabetes Mellitus suffer significant impact on quality of life⁴ due to amputation and the presence of factors related to diabetes itself such as age, time of coexistence of the disease, time after amputation, presence of neuropathy, nephropathy, retinopathy,⁵ unhealed wounds, hospitalizations, risk of new amputations,⁶ glycemic control, drug costs, and hypoglycaemic events.⁷ This represents high social costs and health systems.⁴

The role of nurses in the area of physical rehabilitation has the potential to limit other losses attributable to limb loss, such as long-term disabilities and impairments in work or school life, through targeted Nursing consultation and appropriate interventions.

For the area of Rehabilitation Nursing, it is imperative to recognize which actions contribute to the improvement of the quality of life of these people, so that strategies and intervention programs can be developed that can be implemented in the rehabilitation process.³

It is the Specialized Centers in Rehabilitation, the institutional spaces where a large part of the rehabilitation actions take place within the scope of the Unified Health System. Based on the assistance of multiprofessional teams, these centers arose from the (re) structuring of the Care Network for People with Disabilities, which also encouraged the implementation of clinical guidelines and protocols for the care of persons with disabilities in these spaces.

Clinical guidelines, widely disseminated by the Brazilian Ministry of Health,¹⁰ provide general guidelines, focusing on the work developed in the multiprofessional perspective, or, with emphasis on areas such as physiotherapy and occupational therapy. In this sense, the development and the adoption of evaluation instruments and specific assistance protocols for the area of Nursing in Rehabilitation is urgent.

Evaluation instruments and care protocols emerge as an alternative to adapt and improve the quality of Nursing care,

since they propose measures based on scientific evidence, defining priorities in routines and behaviors with a view to minimizing costs,¹¹ to improve the results achieved during the treatment and promotion of new standards of safety and reliability,¹² in addition to providing a systematic and interrelated consultation that can offer, nurses, subsidies for their performance.¹³

OBJECTIVE

- Design a Nursing Consultation Support Tool(NCST) for people amputated, due to complications of Diabetes Mellitus, with a view to improving the patient's quality of life and preventing new complications.
- Identify, in the literature, the requirements that should make up the instrument.
- Develop the instrument.
- Validate the instrument.

METHOD

A quantitative, cross-sectional, methodological study focused on the development, evaluation and improvement of methodological strategies,¹⁴ to be developed in the School of Nursing and Pharmacy of the Federal University of Alagoas / FUAL, in four stages.

♦ Study steps

In the first stage, will be carried out the survey of the necessary requirements for the elaboration of said tool, with the objective of identifying the specificities of the Nursing process in the rehabilitation of amputated people as a consequence of Diabetes Mellitus. In order to do so, we will perform an Integrative Review, with searches in the databases National Library of Medicine National Public Institutes of Health (Pub Med), Medical Literature Analyzes and Online Retrieval System (MEDLINE), Latin American and Caribbean Literature in Health Sciences (LILACS), Nursing Database (BDENF) and the Scientific Electronic Library Online (SciELO) virtual library.

In the search strategies, the Health Sciences Descriptors (DeCs) of the terms diabetes mellitus, quality of life, clinical practice guide, amputation and Nursing processes, in the English and Portuguese languages, will be used with the combination of Boolean AND adapted to each one of the data base.

In the second stage, the researchers will elaborate the NCST prototype, based on the requirements raised in the literature. To this end, the previously identified requirements will be grouped into large domains that characterize the functional capacity, quality of life and Nursing care needs of people within the described profile (amputated and diabetic). Such requirements should result in the evaluation items and intervention items to be proposed in NCST.

In this study, domains are defined as meaningful sets of body functions, actions, tasks or area of life that capture a specific phenomenon or life experiences, or, facets and health and well-being, situations related to health,¹⁵ that are considered pertinent to Nursing care for people amputated as a result of diabetes. Such an understanding is widely used, in approaches to instrument construction, in various areas of knowledge.^{15,16}

In the third stage, the researchers will submit a questionnaire, with the NCST prototype and the collection of requirements identified, for the analysis and evaluation of consulting nurses with professional expertise in rehabilitation, so that they can analyze and point out the elements that should be removed or not, or that can collaborate with suggestions of requirements not yet listed. From then on and after the correct corrections in the prototype, the researchers will be able to elaborate the first version of the NCST.

In the fourth stage, the NCST Validation process will begin, in which a group of judges will validate and determine the reliability of the same. To do so, the judges will receive a copy of the instrument and a questionnaire, based on a four-point Likert scale, (1-strongly agree, 2-agree, 3-disagree, 4-strongly disagree).

Judges, will be asked to analyze the content of the NCST for inclusion or definitive exclusion of items and a space, will be left in the questionnaire of these collaborators, so that they can write suggestions to improve the items or make comments on the evaluated object.

The NCST items will be analyzed for: 1. Organization - it will be verified if the arrangement of the items maintains organization / group coherence and should be divided into items of evaluation of the patient and items with suggestion of actions

/ interventions for Nursing care; 2. Clarity - it will be observed if the items have been written so that the concept is understandable and is adequately expressed what is expected to be measured; 3. Relevance of the items, to assist the evaluation of a person amputated by complications of diabetes - will verify if the items reflect the concepts involved, if they are relevant and adequate to reach the proposed objectives; 4. Relevance of Nursing action, and intervention items to improve the quality of life of these patients - will verify if the items that reflect the concepts involved are relevant and potentially adequate, to improve the quality of life of people within the described profile.

The Likert scale was chosen to be used, a type of psychometric response scale commonly used in instruments and opinion surveys, allowing, employees, to specify their level of agreement with a statement. In order to measure the proportion of judges who are in agreement with the NCST items, the Content Validity Index (CVI) will be used to analyze each item individually and also as a whole.¹⁷

To ensure the reliability of the questionnaires given to the judges, the Cronbach Alpha Coefficient, will be calculated to measure the correlation between the answers of the questionnaire, through the analysis of the answers given by the judges, presenting a mean correlation between the questions.

The Cronbach's Alpha Coefficient is the most used strategy to verify the internal consistency of the instrument in the studied group,¹⁸ in which the values are distributed in a scale of zero to one, and is considered valid when reaching 0.7 as value.¹⁹ The same will be calculated from the individual items variance and the variance of the sum of the items of each judge, of all the items of the questionnaire, using the same scale of measurement.²⁰

At least, two rounds, are scheduled to consult the judges in the validation process. However, more than necessary, until the NCST is validated in its final version.

♦ Collaborators and inclusion criteria

A group of consultant nurses and a group of judges, respectively, will be enrolled in the third and fourth stages of the study, which will be identified by curriculum analysis, registered in the Lattes Platform,

which will be verified titration, the scientific production and time of action with the theme in discussion. Subsequently, these collaborators will be contacted by means of an invitation letter that will explain the objectives, justification of the study and time for sending the answers. If you agree to participate, the questionnaires will be sent for analysis and evaluation of the NCST requirements, for consulting nurses, or the NCST versions, for judges, in the validation rounds.

In order to be included in the group of consultant nurses, nurses must work in rehabilitation services, perform their professional activities in these units, for a minimum of one year, and perform Nursing consultations for persons who have been amputated, as a consequence of diabetes in these services.

In the group of judges, will be included university professors nurses (specialists, masters or doctors) and nurses of the Nursing area in Rehabilitation Nursing. Teachers should be teaching for a minimum of one year and have developed works related to quality of life. Nurses in the care area should work in rehabilitation units for a minimum of one year and consult people who have been amputated due to diabetes complications.

♦ Treatment and data analysis

For the organization, tabulation and analysis of the data, the program Excel 2010 will be used. The data of the questionnaires answered by the judges will be typed in spreadsheet, with double typing, for their validation, and will undergo descriptive statistical treatment.

Some actions will be taken to format the database, according to the statistical software to be used, in this case, the Statistical Package for the Social Sciences, SPSS 20.0. The information will be presented in the form of tables, frequency distributions and variability.

Judges will review the NCST items for organization, clarity and relevance, and then to analyze the validity of NCST content and measure the proportion of participants who agree on their items, the CVI will be used based on three equations $S-CVI / Ave$ (mean of content validation indexes for all indexes of the scale); $S-CVI / UA$ (proportion of items of a scale that reaches score three, really relevant, and four, very relevant, by

all judges) and ICVI (content validity of individual items).²¹

The qualitative answers of the collaborators will be grouped in tables, according to similar characteristics present in the same ones, evidencing the central ideas of their speeches.

♦ Risks and benefits

The proposed study does not present direct risks to employees, who will have outstanding relevance, since their professional experiences will help in the design of NCST. In the School of Nursing and Pharmacy of FUAL, there will be all the necessary infrastructure to support the development of this project.

EXPECTED RESULTS

It is hoped to obtain an instrument to support decision, making during the Nursing consultation, for professionals working in the area of Rehabilitation Nursing, and to allow technological innovation for the care of amputees, due to complications of Diabetes Mellitus, with a view to the implementation of actions and Nursing interventions that promote the improvement of the quality of life of these patients.

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Pereira CIC, Vasconcelos EL, Albuquerque MCS de et al.

Development of a nursing consultation support...

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