



## EDUCATIONAL TECHNOLOGY FOR PREVENTION OF INFECTION OF THE URINARY TRACT DURING PREGNANCY

### TECNOLOGIA EDUCATIVA PARA A PREVENÇÃO DA INFECÇÃO DO TRATO URINÁRIO NA GRAVIDEZ

### TECNOLOGÍA EDUCATIVA PARA LA PREVENCIÓN DE LA INFECCIÓN EN EL TRACTO URINÁRIO EN EL EMBARAZO

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#### ABSTRACT

**Objectives:** describing, based on Abdellah theory, nursing problems evident and non-evident that predispose the occurrence of urinary tract infection in pregnancy; applying an educational booklet about preventive measures to urinary tract infection in a group of pregnant women; and analyzing the use of the booklet, in view of the fundamental aspects of nursing care in the prevention of urinary tract infection during pregnancy.

**Method:** a descriptive study of a qualitative approach, having as research scenario a Family Health Unit. The data collection technique will be the focus group, with the participation of 15 pregnant. The data will be analyzed according to the Content Analysis Technique. The research project was approved by the Research Ethics Committee, CAEE 35037414.1.0000.5243. **Expected results:** facilitating the learning process of pregnant through the application of assistive technology, and contributing to nursing with regard to scientific deepening about the care provided during prenatal and to the development of educational practice.

**Descriptors:** Urinary Tract Infections; Pregnancy; Infectious Complications in Pregnancy; Health Education.

#### RESUMO

**Objetivos:** descrever, com base na Teoria de Abdellah, os problemas de enfermagem evidentes e não evidentes que predispõem à ocorrência da infecção do trato urinário na gravidez; aplicar uma cartilha educativa sobre as medidas preventivas para infecção do trato urinário em um grupo de gestantes e analisar o uso da cartilha educativa, tendo em vista os aspectos fundamentais do cuidado de enfermagem na prevenção da infecção urinária na gravidez. **Método:** estudo descritivo de abordagem qualitativa, tendo como cenário uma Unidade de Saúde da Família. A técnica de coleta de dados será o grupo focal, com a participação de 15 gestantes. Os dados serão analisados segundo a Técnica de Análise de Conteúdo. O projeto de pesquisa foi aprovado pelo Comitê de Ética em Pesquisa, CAEE 35037414.1.0000.5243. **Resultados esperados:** facilitar o processo de aprendizagem das gestantes por meio da aplicação de uma tecnologia assistencial e contribuir com a enfermagem no que diz respeito ao aprofundamento científico sobre os cuidados prestados durante o pré-natal e ao desenvolvimento da prática educativa. **Descritores:** Infecções Urinárias; Gravidez; Complicações Infeciosas na Gravidez; Educação em Saúde.

#### RESUMEN

**Objetivos:** describir, basado en la Teoría de Abdellah, problemas de enfermería evidentes y no evidentes que predisponen a la aparición de la infección del tracto urinario en el embarazo; solicitar un folleto educativo sobre las medidas preventivas a la infección del tracto urinario en un grupo de mujeres embarazadas, y analizar el uso del folleto, en vista de los aspectos fundamentales de la atención de enfermería en la prevención de la infección del tracto urinario en el embarazo. **Método:** es un estudio descriptivo de enfoque cualitativo, con el local de la investigación una Unidad de Salud de la Familia. La técnica de recolección de datos será el grupo de enfoque, con la participación de 15 mujeres embarazadas. Los datos serán analizados según la Técnica de Análisis de Contenido. El proyecto de investigación fue aprobado por el Comité de Ética en la Investigación, CAEE 35037414.1.0000.5243. **Resultados esperados:** facilitar el proceso de aprendizaje de las mujeres embarazadas a través de la aplicación de una tecnología de asistencia y contribuir a la enfermería con respecto a la profundización científica de la atención recibida durante la atención prenatal y el desarrollo de la práctica educativa. **Descritores:** Infecciones del Tracto Urinario; Embarazo; Las Complicaciones Infecciosas en el Embarazo; Educación para la Salud.

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## INTRODUCTION

The urinary tract infection (UTI) is one of the major diseases affecting women in the pregnancy cycle. It is characterized by colonization, invasion and multiplication of infectious agents in the urinary system, facilitated by hormonal and anatomical changes that occur during pregnancy. One of those agents is the *Escherichia coli*, gram-positive bacteria commonly found in the intestines.<sup>1-2</sup>

In this type of infection occurred during pregnancy there are associated with both maternal complications such as anemia, pre-eclampsia, chorioamnionitis and endometritis, as perinatal complications such as prematurity, low birth weight (<2500G), restriction of intrauterine growth, beyond the neonatal death.<sup>3-7</sup> In Brazil, prematurity and low birth weight are the main contributors of neonatal mortality, which accounts for over 60% of infant deaths.<sup>8</sup>

These factors above mentioned; however, are mostly preventable. This is achieved through a comprehensive prenatal care and problem-solving, acting on health promotion, disease prevention, proper treatment and health recovery.

Regarding the prevention of diseases, it has an important role in reducing the occurrence of this type of infection. One strategy that enables this prevention in prenatal care, therefore, is the health education, which is encouraged by government action for years.

In primary health care, this is evidenced since the creation of Integral Assistance Program for Women's Health in 1984, which had as one of the main focuses prenatal care.<sup>9</sup> Since then, several health policies, such as the Politics of Humanization of Childbirth and Puerperium and the Stork Network, has encouraged the improvement of the quality of prenatal care service, as this directly affects the maternal and infant mortality rates.

Given the above, it is noteworthy that health education is widely used by nurses in their professional practice developed in the Family Health Strategy, and this activity one of the tasks recommended by the Ministry of Health. This allows nurses to the adoption of a situational approach, in which occur the identification and resolution of problem situations presented by the customer in question.<sup>10</sup> These nursing problems, based on Faye Abdellah's Theory, are the health needs presented by the individual, whether obvious and non-obvious encompassing thus the emotional, sociological and interpersonal necessities.<sup>11</sup>

Early identification of these problems and the risk factors in this case for UTI in pregnancy, as well as proper handling, contribute to the reduction of maternal and fetal complications, and to work experience of more qualified nursing.

To facilitate and improve this whole educational process, the health sector has been using the printed assistive technologies, which are tools used by health professionals with users to broker the care process.<sup>12</sup> This educational material in this study the booklet, among the various functions, seeks to disseminate knowledge and encourage self-care.<sup>13</sup>

Thus, this study has as object of study in nursing care in the prevention of urinary tract infection during pregnancy.

## OBJECTIVES

- Describing, based on Abdellah Theory, the nursing problems obvious and non-obvious predisposing the occurrence of urinary tract infection in pregnant women;
- Applying an educational booklet on preventive measures to urinary tract infection in a group of pregnant women;
- Analyzing the use of the booklet, in view of the fundamental aspects of nursing care in the prevention of urinary tract infection in pregnancy.

## METHOD

This is a descriptive study of a qualitative approach, to be held in a Family Health Unit in the city of Petropolis, Rio de Janeiro, and will have as target public 15 pregnant women followed there. There are compiled the following criteria: of inclusion (to be registered at the respective health unit and present the pregnancy time lower or equal to 35 weeks), and the exclusion (to be followed up in the private antenatal service).

The technique used for data collection will be the focal group characterized as a qualitative research technique that collects information from the group interactions.<sup>14</sup> This type of group allows the realization of reflections about a specific subject, exploring it in depth and thereby enabling participants to an active position throughout the process.

In the focus group there are recommended that the members have an important feature in common and are chosen according to the purpose of the study, becoming therefore an intentional sample. Further, it is suggested that the number of participants are between 6 and 15.<sup>14</sup> In this context there will be performed 03 meetings with weekly intervals

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from dating to the group of pregnant women. This group will be coordinated by a researcher (moderator), which will be responsible for group dynamics, and an observer who assist in group discussions, will record the group's behavior and help in controlling the time.

During these meetings, which will be recorded, the issue will be discussed on the prevention of UTI in pregnancy and applied a primer with the same focus.

The data collected in the focus group will be transcribed and analyzed from the perspective of Bardin content analysis, the following steps are obeying: pre-analysis, material exploration and treatment of results, inference and interpretation.<sup>15</sup>

This research project of CAEE: 35037414.1.0000.5243, was submitted to and approved by the Research Ethics Committee of the University Hospital Antonio Pedro, Fluminense Federal University (UFF), based on the Resolution NHC 466 of December 12<sup>nd</sup>, 2012, ensuring study participants secrecy, anonymity, voluntary participation and withdrawal at any time of the survey without any prejudice at the same.<sup>16</sup>

## EXPECTED RESULTS

It is hoped that this study facilitate the learning process of pregnant women about the prevention of urinary tract infection through the application of assistive technology, and contribute to nursing, with regard to scientific deepening of the care during the prenatal and, the development of educational practice.

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