VALIDATION OF A NURSING DISCHARGE PLAN FOR PREGNANT AND HIGH-RISK PUERPERAL WOMEN

ABSTRACT
This is a descriptive study of quantitative approach which aims to validate a nursing discharge plan for pregnant and high-risk puerperal women through the Delphi Technique. The data collection was performed during the period from October 2013 to October 2014. Seventeen evaluators, eleven nurses and six doctors specialized in Obstetrics constituted the sample. The results showed the most relevant care for each of the listed diagnoses, being performed five cares for premature labor, four for Diabetes Mellitus, eight for hypertensive diseases and 14 for puerperal care. It was concluded that the elaborated care achieved consensus among the experts, being substantiated by the literature and thus, will assist the pregnant and puerperal women in identifying risk signs which suggested the need for immediate specialized care for employment of effective treatments in the prevention of complications, being essential for the reduction of unfavorable outcomes, preventable for the mother, fetus or neonate.

Keywords: Patient Discharge; Pregnant Women; Postpartum Period; Obstetric Nursing; Maternal and Child Health.

RESUMO
Estudo descritivo de abordagem quantitativa com o objetivo de validar um plano de alta de enfermagem para gestantes e puérperas de alto risco, por meio da técnica de Delphi. Fez-se a coleta de dados no período de outubro de 2013 a outubro de 2014. Constituíram a amostra 17 avaliadores, sendo 11 enfermeiros e seis médicos especialistas em Obstetricia. Os resultados revelaram os cuidados mais relevantes para cada um dos diagnósticos listados, sendo elaborados cinco cuidados para o trabalho de parto prematuro, quatro para diabetes mellitus, oito para doenças hipertensivas e 14 para cuidados puerperais. Concluiu-se que os cuidados elaborados obtiveram consenso entre os peritos, sendo alicerçados pela literatura e, portanto, auxiliarão as gestantes e puérperas na identificação de sinais de risco que sugerem necessidade de atendimento especializado imediato para o emprego de tratamentos efetivos na prevenção de complicações, sendo essencial para a diminuição dos desfechos desfavoráveis, passíveis de prevenção para mãe, feto ou neonato.

Palavras-chave: Alta do paciente; Gestantes; Período Pós-Parto; Enfermagem Obstétrica; Saúde Materno-Infantil.

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RESUMEN

Estudio descriptivo de enfoque cuantitativo con miras a validar un plan de alta de enfermería para embarazadas y parturientas de alto riesgo con el método Delphi. La recogida de datos fue realizada de octubre de 2013 a octubre de 2014. La muestra estuvo constituida de 17 evaluadores: 11 enfermeras y seis médicos especialistas en obstetricia. Los resultados apuntaron los cuidados más relevantes para cada uno de los diagnósticos enumerados, habiéndose elaborado cinco cuidados para el trabajo de parto prematuro, cuatro para diabetes Mellitus, ocho para enfermedades hipertensivas y 14 para cuidados puerperales. Los cuidados elaborados obtuvieron consenso entre los especialistas y, al estar consolidados por la literatura, podrán ayudar a las embarazadas y a las madres a identificar señales de riesgo que puedan indicar la necesidad de brindar atención especializada inmediata para llevar a cabo tratamientos efectivos en la prevención de complicaciones, algo fundamental para disminuir resultados desfavorables, prevenibles, tanto para la madre, como para el feto y el recién nacido.

Palabras clave: Alta del Paciente; Mujeres Embarazadas; Período de Postparto, Enfermería Obstétrica; Salud Materno-Infantil.

INTRODUCTION

The pregnancy, even being a physiological process, can lead to complications that require qualified and specialized assistance. It is known that the causes of complications in pregnancy-puerperal cycle are the same throughout the world; however, its consequences vary significantly both between countries and in different regions.1

Thus, attention to prenatal care and the quality of puerperal period are fundamental to maternal and newborn health. The risk identification before and during pregnancy is directly related to fetal well-being and birth conditions, determinant in neonatal mortality rates.2

The nursing discharge plan is a way to facilitate the transition of the pregnant and/or puerperal women from one level of care to another, providing the continuity of treatment after discharge. In many situations, due to complications of pregnancy and/or labor, there will be the need for special care. Thus, would be necessary to adjust their daily lives in the transitional period of their health state. Thus, discharge-planning strategies can ease this process, favoring that at the time of discharge it is more focused on home care.3

One way to plan the discharge is from the hospital discharge plan, which is a means of organizing the activities, determined by the conditions of each pregnant and/or puerperal women, which must be performed in an interdisciplinary way, beginning at the time of admission through the identification of real risk and/or potential issues.4

It should be considered as a stage of systematization of nursing care, which directs the implementation of actions in the period between admission and hospital discharge;5 being both the discharge guidance as for the understanding of the pregnant and/or postpartum women about them should appear in the nursing record.5

The absence of nursing discharge plans contributes to aggravate the current healthcare setting because it is increasingly common for patients in intensive care need to receive discharged in an attempt to reduce costs and infections, and it is also common that the nurse has little opportunity to guide them and also their families in a timely manner before discharge.3

The concern in planning hospital discharge occurs mainly due to the high cost of hospital admissions, aggravated by the lack of continuity of home care, leading readmissions6 and exposure to the risk of patient infection during readmission.6

However, it is observed that the professional nurse realizes the need to prepare the patient and their family to the hospital discharge, but in the practice, this does not occur. The discharge is one of the stages of the process of nursing care and, therefore, needs to prepare the patient for the same, from the moment of the admission to the hospital.7

Furthermore, it is known that approximately 25% of patients had any complications about one month after hospital discharge. Of these, almost half are considered preventable and best results are obtained when there is some hospital discharge planning established.8

The actions involving the hospital discharge should be planned according to the needs of each user. The more they suit the user’s needs and their families, the most contribute to minimizing or improving the living conditions and/or preventing complications and/or comorbidities and avoid readmissions.8

Given the above, it is considered the lived reality in which risk pregnant women, in general, when receive discharge from tertiary services, even maintaining outpatient treatment, return to their homes only with verbal guidance and often need to use other levels of care health, as well as puerperal women, that despite following risk clinic also perform the follow-up in primary care.

The development of a discharge plan is proposed, also, to guide the patient in self-care and identification of risk signals and can be taken the same as a brief hospitalization history to direct the other professionals who may, at some time, provide assistance to women.

Given the importance of an individual discharge plan, following obstetric particularity of each pregnant or puerperal women, with clear and objective information, the content validation by professional specialists and/or experts in the field, through the Delphi technique was considered essential to this search.

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Therefore, the aim of this study was to evaluate a nursing discharge plan for pregnant high-risk puerperal women through the Delphi technique.

**METHOD**

This is a descriptive study with a quantitative approach. We used the Delphi technique, defined as a systematic method of judgment content and/or information, useful for expert’s consensus about a particular issue through articulated validations in phases or cycles. The application of the Delphi technique can occur through the application of structured questionnaires, which are delivered to participants in rounds, so they can obtain consensus on their responses after analysis, because the collective judgment when well organized, is considered of great value when compared to the grounded judgment on the opinion of a single individual.

The survey was conducted after a favorable opinion of the Research Ethics Committee of the State University of Londrina UEL, under no CAEE: 23124713.6.0000.5231.

The methodology trajectory followed three steps: elaboration of data collection instrument; content validation; and verification of the reliability of the instrument for agreement analysis among experts with longer experience.

A systematic literature search was made for the development of the instrument to investigate the nursing care for pregnant women diagnosed with premature labor (PL), hypertensive diseases and diabetes mellitus (DM) and high-risk puerperal women.

Aiming to refine the instrument about the scope, clarity, relevance and configuration, as well as if the proposed items contemplated the parameters established for the care of the pregnant and puerperal woman considered at risk, judgment was performed by three doctors and three nurses before some selection criteria of the appraisers, as having the title of specialist in Obstetrics or Nursing Obstetric and acting for at least five years in high-risk maternity services. After the elaboration and refinement of the instrument began the process of recruitment of professional experts for the final evaluation.

Professionals from hospital institutions, referrals for care of high-risk pregnant women in the city of Londrina/Paraná, were contacted by the researchers that, in total, delivered 25 instruments with concomitant clarification about goals, fulfillment and purpose of the research and the Informed Consent Form, which was delivered in two copies and after signed one was maintained with the respondent/evaluator and the other remained with the researcher. Data were collected between October 2013 and October 2014 and established within 30 days for review and devolution. Therefore, the study sample consisted of seventeen evaluators, eleven nurses and six doctors.

According to the literature, there is no consensus on the specific content of the evaluations or experts, however, the number of experts will depend on the available sample that the researcher can contact.

Thus, the sample selection of professionals who participated in this research occurred by “sampling ball-snow or network sampling”, which is the request to the initial sample subjects indicate or recommend other subjects that meet the selection criteria for the study.

The following parameters for the selection of evaluators were established: being care nurses or obstetrics doctors with professional practice in high-risk maternity hospitals of these institutions in the city, with a minimum operating time of one year.

For the construction of the discharge plan for high-risk pregnant and puerperal women were only considered relevant the judgments of converging opinions with a favorable minimum level of 70% based on statistical analysis. This concordance rate was marked in other validation studies.

The verification of reliability is an important factor in the indication of the quality of an instrument. Thus, in choosing a model for instrument reliability verification, the consistency of answers was used, understanding that the consistency of the content comes from the agreement among raters.

The instrument variables that did not reach the minimum rate (70%) and showed different responses to the questions were reformulated and submitted to further analysis of the evaluators and after obtaining minimum rate (70%) of agreement the discharge plan validation was closed.

**RESULTS AND DISCUSSION**

A brief characterization of the professionals showed that related to the professional category of evaluators; eleven are nurses and six doctors. Of these, one doctor, one post-doctor, one doctoral student, two teachers and six experts in the field, aged between 28 and 56 years of professional practice in the area between seven and 28 years.

Regarding the development of a nursing discharge plan for pregnant and risk puerperal women, determined the data identification, pregnancy diagnosis and some relevant precautions to certain diagnoses with higher incidence among risk pregnancies, which are premature labor (PL), hypertensive diseases and diabetes mellitus (DM). Also, care for puerperal women were assigned, since the risk of pregnant will be the risk puerperal women.

The identification data determined in this plan for pregnant women and validated by the evaluators were the gestational age at the hospital discharge time, maternal age, parity, hospitalization length, blood type and hospital name and basic health unit of reference. For puerperal women, constituted the date of labor, gestational age on the day of labor, type of labor,
if cesarean labor, which indication, parity, maternal age, blood type, and hospital name and basic health unit of reference.

These data came from the meeting of the scientific literature, as being gestational risk factors widely recognized. Thus, the identification data, including pregnancy diagnosis, are intended to identify some of these risk factors. Extremes of maternal age (<15 or >35 years), parity, especially related to the occurrence of habitual abortion, nulliparity and grand multiparity, previous preterm labor and diagnosis of premature labor, gestational diabetes, hypertension, heart disease, premature rupture of membranes; among others, are gestational risk factors that suggest prenatal approach and even stricter puerperal.

Therefore, home care and guidance for self-care that makes up the discharge plan were determined primarily according to the literature and later as assessments of experts, comparing the suggestions to the current guidelines.

For each defined diagnosis, nursing cares were raised, based on scientific literature, targeted for selfcare of high-risk pregnant and puerperal women.

**Premature Labor**

Five nursing care were raised. Of these, one was modified, one deleted and one suggested as an addition. Therefore, the remained care were: a) avoid sexual intercourse; b) seek the emergency room in case of abdominal hardening (contractions) that appears 10 to 10 minutes; c) seek the emergency room in case of loss of fluid vaginally; d) seek the emergency room in case of decrease or absence of the baby’s movements; e) seek the emergency room in case of vaginal bleeding.

The premature labor directly affects the quality of family life, and strongly reflects public health issues, because has great fetal morbidity and mortality.

Home care included in the discharge plan seek to guide the pregnant women at risk of premature labor to identify the ideal time to search for care at the tertiary level, even in time of conducting therapeutic measures for preventing premature labor or measures that can prevent complications of newborns prematurity.

The home management of PL is the identification of uterine activity, attention to the discomforts as painful cramps, lower abdomen pain, vaginal secretion, and healthy habits such as balanced nutrition, fluid intake and relaxation measures. Fetal movements count is also of great value and should be performed twice a day. And the search for hospital care is indicated when there is identification of a sign or symptom of premature birth.

In preterm pregnancies with gestational ages from 22 to 37 weeks, PL is characterized by contraction of five to eight minutes followed by dilation greater than 2 cm and/or emptying greater than 50%.

For the discharge plan, it was decided to indicate hospital care already when the pregnant women identify contractions 10 minutes apart because the sooner it is submitted to clinical and laboratory evaluation that suggest advantages in the use of tocolysis and the earlier starting the therapeutic, the best fetal prognosis.

**Hypertensive Diseases**

Five nursing care were proposed for this diagnosis. Of these, five were modified, three were suggested as an addition, and there were no exclusions. In the end, the care that composed the plan were: a) to measure blood pressure every day, write down the time and measure to control. If you have the pressure device at home, you can measure at night and in the morning too; b) weight, preferably on the same scale, once a week and write down for control; c) in case of blurred vision or bright spots in vision, headache that does not improve, pain in the stomach region, if you the device at home, measure blood pressure and look for the emergency room if it is above 140/90 mmHg; d) in case of blurred vision or bright spots in vision, headache that does not improve, pain in the stomach area and can not measure blood pressure at the time, immediately seek emergency; e) seek emergency if present sudden swelling, mainly in the hands and face or if you have gained weight more than 2 kg in a week; f) seek the emergency room in case of vaginal bleeding; g) avoid eating foods with too much fat, reduce salt food and follow the nutritionist’s guidelines; h) take the medications prescribed by your doctor, at the indicated dose and time.

Hypertensive disorders in pregnancy are associated with adverse outcomes for mother and fetus. The prenatal care and immediate assistance in front of compliance of hypertensive disease are essential for disease prevention to the binomial. In this case, the discharge plan was developed with an emphasis on identification, by pregnant women, hypertensive crisis requiring immediate intervention, as well as simple care such as weight and blood pressure measurements for control to optimize prenatal monitoring.

In general, in the case of hypertensive diseases are considered relevant guidance about nutritional issues, daily weight and observation of excessive weight gain, blood pressure verification and daily log for tracking the patient.

For risk pregnant women, especially those with pre-hypertension, signs such as excessive weight gain, swelling of the face and others that suggest increased blood pressure are fundamental to start strict control of blood pressure and proteinuria to predict preeclampsia or eclampsia frames.
Pregnant women with weight gain greater than 0.5 kg/week deserve special attention even without presenting increased blood pressure.20 Those with sudden weight gain, more than 2 kg/week in any period of pregnancy may be developing preeclampsia in mild stage.99

For patients with pre-eclampsia, which has persistent increase in blood pressure or imminent signs such as a severe headache, persistent visual disturbances, severe persistent epigastric pain, nausea, vomiting and vaginally bleeding, the labor anticipation is indicated,2 given the importance of the patient to identify warning signs before the worsening of their clinical condition.

**DIABETES MELLITUS**

For the diagnosis of diabetes mellitus, six nursing care were proposed. Of these, one was modified, three were excluded, and one was suggested as an addition. The remained care was: a) follow the guidelines provided by the nutritionist about feeding: avoid soft drinks, pasta, bread, and sweets and give preference to fruit and vegetables. Eat small meals and carbohydrate counting, if such measure is guided by a nutritionist; b) in case of tremors, malaise and sweat aplyteny, try eating some sweet food and find the health center near home; c) measuring the blood sugar in the morning, fasting, and the value is greater than 95 mg/dL, look for the health center; d) care for the use of insulin: avoid exposing the insulin bottles to sunlight; avoid leaving the jars in hot places such as near the stove or electric oven; insulin should be stored in refrigerators, at the door or the bottom; the insulin in use may be kept at room temperature for up to one month. In this case, leave the bottle in the cooler place in the house; the insulin bottle can never be frozen. To apply: choose the place to apply insulin. Clean the skin using cotton with alcohol and let dry. Maintaining distance of about 2 cm from where the previous injection was administered, if the body area is the same; avoid applying at the same location; make a fold in the skin where you will apply the insulin; pick up the syringe like a pencil; insert the needle into the skin standing, release the skin fold; inject insulin; remove the syringe and make slight pressure on the local, using the alcohol swab.

Endocrine diseases such as diabetes mellitus are also associated with adverse outcomes for mother and fetus. In the case of diabetes mellitus, the change in lifestyle, especially for control of the glycemic index and weight gain, challenges to the multidisciplinary team.21

Glycemic control in fasting and post-prandial are very important. Fasting blood glucose of 95 mg/dL or more or one-hour postprandial glycemia 140 mg/dL or more with proper diet supports the prescribing insulin.2

The main items for self-care recommended by medical literature are related to dietary guidelines that include a balanced diet, fractionated, following the prescribed diet plan; guidelines for insulin self-administration, emphasizing application technique and care with medication; monitoring glucose levels and identification of signs of hypoglycemia or hyperglycemia.20 All of these items are included in the discharge plan elaborated on this research.

**HIGH-RISK Puerperal WOMEN**

Regarding puerperal care, fifteen care have been proposed. Of these, four were modified, and there were no exclusions. The remained care were: a) seek the health center as soon as possible to schedule the puerperal consultation; b) seek the health post if any of cesarean spots open; c) seek the health post if having pus in the cesarean points or if it gets too hot and red; d) seek the health center if presenting stench by vaginal bleeding or if you notice any discharge; e) seek the health center if presenting severe pain in the stomach; f) seek the health center if having fever of 38°C or more for two consecutive days during the first 10 postpartum days; g) wash the cesarean points with soap and water, dry with clean towel; h) avoid using towels or compresses upon cesarean points; i) wash the episiotomy points (cut in the vagina) with soap and water every time urine or stool; j) seek the emergency room in case of vaginal bleeding in large quantities; k) if you made normal delivery with episiotomy (cutting the vagina), ask your partner or use a mirror to see how the points are. These points fall alone; there is no need to remove the post. If it is red, very swollen or with pus, seek the health post; l) seek the health post to measure the pressure in case of headache that does not improve, dizziness, blurred vision or bright spots; m) in case of breast engorgement (“gravelly chest”) or cracked nipples (“nozzle cracked chest”), look for the reference bank milk; n) if the newborn express some difficulty in breastfeeding, seek the health post; o) if you feel great sadness, irritability, inability to care for her newborn, fatigue or feelings of loneliness, look for the health post.

The guidelines for self-care address a puerperal risk that should keep puerperal follow-up in primary care level as well as in specialized service. They elaborate care for the identification of risk signs that suggest an immediate search for care.

The attention to women and newborns in the first postpartum weeks is essential for maternal and neonatal health. The first puerperal consultation should be scheduled after the home visit, which should occur in the first postpartum week since much of the morbidity and mortality situations occurs during this period,22 and such guidance should be strengthened to puerperal women in the maternity.

The nursing discharge plan aims at a comprehensive approach to identifying signs and symptoms that may suggest
some puerperal infection, recommending some care to prevent infection.

The main puerperal complications are the emotional changes, such as symptoms suggestive of Baby Blues (sadness, the difficulty of caring for the child, anguish, and symptomatic complaints), hypertension, fever, pain in the lower abdomen or breasts, vaginal secretion of fetid odor, intense bleeding. Patients with these signs and symptoms should immediately seek care.22

A brief approach about difficulties in breastfeeding was considered in the discharge plan, focusing on guidance about where to seek specialized care in cases that require this type of care. The main difficulties in breastfeeding referred by puerperal women are the incorrect handle, fissure, engorgement, and mastitis.22

CONCLUSION

This study led to the development of a discharge plan consisting care targeted to pregnant and puerperal women with diagnoses related to PL, DM, and hypertensive diseases, with the guidance for self-care of them in their homes as a research object.

It should be identified that care designed for each diagnosis obtained consensus among experts, being grounded in the scientific literature and thus, assist pregnant and puerperal women in identifying warning signs that suggest the need for immediate specialized care in time for the use of effective treatments to prevent complications. This is essential in the reduction of unfavorable outcomes, preventable, for mother and fetus.

Added to the ideal time to seeking care, the health care level that the patient should seek (primary, secondary or tertiary) is also of great importance. When the patient can get adequate health service, there is a reduction in the time taken to start the service and optimization of the services provided by the health institution, avoiding queues, attendance delays, and lengthy referrals.

It is recommended further studies to be developed about this subject, including other diagnoses, and self-care plans being implemented in reference institutions to improve the quality of maternal and newborn health.

It should be noted that the construction of discharge plan is to direct and assist professionals in discharge guidance, optimizing the time to be spent on this task, but should not replace the assessment of the nurse and the individualization of the discharge plan for pregnant and/or puerperal women, which is fully subject to modifications as required.

REFERENCES


