The nursing care beyond the control of infections should focus on actions of health education for women. The care of nurses, in the hospital environment, which interfere in the control of puerperal infections becomes a facilitator of the process of communication among caregivers. Conclusión: the control of infections in the postpartum period focuses on actions of health education for women.

ABSTRACT
Objective: Identifying the care of nurses those contribute to the control of puerperal infection in the hospital environment; discussing the importance of nursing care for the control of infections in the postpartum period.

Method: an integrative review, with search in LILACS, CINAHL, MEDLINE and SciELO virtual library, from the research question << What are the care of nurses, in the hospital environment, which interfere in the control of puerperal infections? >>. Nine studies were eligible in the period between 2008 and 2013, in Portuguese and English. The presentation of the review and discussion of the data were performed in a descriptive way to enable the reader to critically evaluate the results and their applicability.

Results: care developed by nurses becomes a facilitator of the process of communication among caregivers.

Conclusion: The nursing care beyond the control of infections should focus on actions of health education for women.

Descriptors: Nursing; Nursing Care; Puerperal Infection.

RESUMO
Objetivo: identificar os cuidados do enfermeiro que contribuem para o controle da infecção puerperal no ambiente hospitalar; discutir a importância dos cuidados do enfermeiro para o controle das infecções no período puerperal.

Método: revisão integrativa, com busca nas Bases de dados Lilacs, CINAHL, MEDLINE e biblioteca virtual SciELO, a partir da questão de pesquisa << Quais os cuidados do enfermeiro, no âmbito hospitalar, que interferem no controle das infecções puerperais? >>. Foram elegíveis nove estudos no período entre 2008 e 2013, nos idiomas português e inglês. A apresentação da revisão e a discussão dos dados foram realizadas de forma descritiva, a fim de permitir ao leitor a avaliação crítica dos resultados e a sua aplicabilidade.

Resultados: o cuidado desenvolvido pelo enfermeiro vem a ser um facilitador do processo de comunicação entre os cuidadores.

Conclusão: o cuidado do enfermeiro, além do controle de infecções, deve focar ações de educação em saúde para a mulher.

Descritores: Enfermagem; Cuidados de Enfermagem; Infecção Puerperal.

RESUMEN
Objetivo: identificar los cuidados del enfermero que contribuyen al control de la infección puerperal en el ambiente hospitalario; discutir la importancia de los cuidados del enfermero para el control de infecciones en el periparto.

Método: revisión integradora, con la búsqueda en las bases de datos LILACS, CINAHL, MEDLINE y de la biblioteca virtual SciELO, a partir de la pregunta de investigación << ¿Cuáles son los cuidados del enfermero, en el ambiente hospitalario, que interfieren en el control de las infecciones puerperales? >>. Nueve estudios fueron elegidos en el período entre 2008 y 2013, en portugués y en inglés. La presentación de la revisión y la discusión de los datos se realizaron de forma descriptiva, para que el lector pueda evaluar críticamente los resultados y su aplicabilidad.

Resultados: el cuidado desarrollado por el enfermero se convierte en un facilitador del proceso de la comunicación entre los cuidadores.

Conclusión: la atención del enfermero, fuera el control de infecciones, debe centrarse en acciones de educación para la salud para las mujeres.

Descritores: Enfermería; Cuidados de Enfermería; La Infección Puerperal.
INTRODUCTION

Assistance in health is everything that involves the health care of human beings, and that includes the promotion, protection, rehabilitation and treatment of diseases. It permeates a variety of industries and complexities that require specific, additional, insightful and essential care. Having priorities in control of care-associated infections in health (IRAS), as are the major cause of morbidity and mortality in hospital admissions, being defined as that acquired during hospitalization.\(^1,2\)

The puerperal infection is related to infection of health care, with a complication of puerperal period, which contributes to increased maternal morbidity and mortality. Thus, puerperal infection is understood as any bacterial infection of the female genital tract competitor to the process of childbirth and birth.\(^3\)

Despite the scientific and technological advancement in various areas of knowledge, puerperal infection still constitutes a major public health problem, as evidenced by their high prevalence of morbidity and mortality. The hospital, in turn, is where are concentrated the most sophisticated technology and machinery have been seen as unnecessary to the achievement of delivery. So the woman is the object of the process, leaving her to submit to procedures determined by the health team, not your desire to choose. Giving birth in the hospital environment has been characterized as a surgical and inhuman event, leaving private, intimate and feminine being, which increases the incidence of puerperal infection; hence the need for reducing the puerperal period, unnecessary to woman, in hospital procedures.

Among the sites with the highest prevalence of these infections include the site of insertion of the placenta, the abdomen and perineum resulting from surgery and lacerations of the genital tract. However, the development of puerperal infection may be exacerbated on various risk factors such as diabetes, obesity, and prolonged birth.\(^3\)

Noteworthy are the high rate of operative deliveries, which increases considerably in the minds of women. Cesarean section because it is a surgical and invasive procedure when compared to normal birth, which is a natural physiological process, presents more complications. The problem with this practice is their association with maternal and fetal complications, such as: anesthetic accidents, bleeding, bladder and bowel injuries, stretching the myometrial incision, amniotic fluid embolism and puerperal infection.\(^4,5\)

In this sense, nurses to develop interventions targeting the real needs of postpartum women, qualifies the care given to the contribution decisively to prevent and reduce the rates of puerperal infection. Thus, the postpartum period is a period of risk, which makes the essential skilled nursing care that is based on the prevention of complications.\(^6\)

The construction of the knowledge of nurses is significant, since in the context of care in puerperal cycle, historically, decisions about women's health were grounded in the biomedical health care system. Thus, health professionals obtain the power of decision. Added to this, the emerging presence is directing actions in a new paradigm for health care, focusing on the humanistic model.

In the biomedical health care system, emerges the need to transform the model of postpartum care at all stages of the pregnancy-puerperal cycle, from awareness to their professional duties integral, since the work of nurses across the context supports it legally through official documents governing the profession.

Herein, the Law n. 7.498/86, which regulates the nursing profession, says that the nurse performs all nursing activities so that they have as members of the health team, conduct systematic prevention and control of hospital infection prevention and control and systematic damage may be caused to customers during nursing care.\(^7\)

OBJECTIVES

- Identifying the care of nurses that contributes to the control of puerperal infection in the hospital environment.
- Discussing the importance of nursing care for the control of infections in the postpartum period.

METHOD

A study of integrative review considered a strategy to identify existing evidences for the purpose of substantiating a health practice in the various specialities.\(^8\) For the survey evidence were followed six stages: identification of the topic and selection of research question; establishment of criteria for inclusion and exclusion of studies and searching the literature, defining the information to be extracted from selected studies, critical evaluation of the studies included in the integrative review,
interpretation of results, presentation of the review/synthesis of knowledge.⁹

To guide the integrative review was formulated the following question << What are the care of nurses in the hospital environment, which interfere with the control of puerperal infections? >> To select the articles were used as databases: Cumulative Index to Nursing and Allied Health Literature (CINAHL), Latin American and Caribbean Literature on Health Sciences (LILACS), Medical Literature Analysis and Retrieval System Online (MEDLINE) and Scientific Electronic Library Online (SciELO). We sought to further original references in articles identified in a survey for the period from January to May 2013.

The inclusion criteria for the selection for these integrative review publications were articles published in English or Portuguese, available in full on the databases in the period 2008-2013. Studies not available were excluded in their entirety: dissertations, theses and journal articles that there was no scientific basis and that did not fit the cutout of the last five years.

There was used the standardized and available in MeSH descriptors: Nursing Care, Hospital Infection, and Puerperal Infection. The search was conducted by online access, and initially 745 articles were obtained. Of these, we excluded those who were not related to the topic (350) by carefully reading the title and abstract online. Subsequently, the reading in full of all other publications of the first selection (300) also allowed excluding those that were repeated in the databases (86). Thus, the final review sample consists of 9 items, obtaining a predominance of studies Methodological quality level 4 with a total of six publications, followed by level 2, level 3 and level 5 with each level presenting a publication.

Identification of the article, type of publication, study design, objectives, sample, main results and conclusions: To collect data from the articles that were included in this review, a form including the following items was prepared. Title, materials and methods, results and conclusions: for examination and synthesis of publications A table built for this purpose, which included the following was used.

The presentation of the review and discussion of the data were performed in a descriptive way to enable the reader to critically evaluate the results obtained and its applicability.

RESULTS

In the present integrative review, nine articles were analyzed; those met the inclusion criteria previously established.

It was found that the literature of the subject of nursing care in puerperal infection is scarce, however, being addressed by different studies, promoting the care and control of puerperal infection to a conditioning of full and effective care in the care of women.

From the objective (s) of articles, show that there productions in order to identify and analyze, specifically, the contribution of nurses in puerperal infection control in hospitals were found.

However, the care of nurses for the control of puerperal infection mainly includes frequent assessment of vital signs, constant listening to the complaints of postpartum women, provide adequate care for surgical incisions to control hospital infections.

Publications relevant to the thematic studies were the last five years, according to the inclusion criteria described already. Thus, the study found more publications from the year 2012 (3/9) followed by 2010 and 2009 (2/9) for each year, followed by 2008 (1/9) 2009 (1/9) and 2011 (1/9).

Figures 1, 2 and 3 we present the synthesis process of the articles included in this integrative review.
<table>
<thead>
<tr>
<th>Title</th>
<th>Methods</th>
<th>Evidence Level</th>
<th>Main Results</th>
<th>Conclusions</th>
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<tbody>
<tr>
<td>Proposal for the creation of nursing Protocol for care of patients with wall abscess post c-section.</td>
<td>This is an exploratory study of qualitative and quantitative approach. For the elaboration of the Protocol was conducted applying semi-structured questionnaire and screenplay by field observation. Then defined therapeutic standards and service standards, based on scientific evidence.</td>
<td>Level 4</td>
<td>We interviewed 14 patients with diagnosis of wall abscess associated with cesarean, among these complications it is observed by cesarean act be puerperal infection in before Cesarean section. Both the medical staff and nursing has scientific technical knowledge about the care of this group of patients, but there is a systematization of care through multidisciplinary work either and Protocol.</td>
<td>A protocol has been developed to cater for the patients with post-cesarean wall abscess in the Accommodation sector set that could be applied the tested in the future.</td>
</tr>
<tr>
<td>Needs of women in puerperium immediately in a public maternity de Salvador, Bahia, Brazil.</td>
<td>It is a descriptive research that presents itself as a re-look, with, care, the situation of women, admitted in the Accommodation system Set, seeking to explain, in the light of gender and power relations, the issues involved in providing nursing care.</td>
<td>Level 4</td>
<td>Were interview 25 women who were at the lodge where set resulted in two categories: the host needs and need for physical care.</td>
<td>The study points out how conclusion the need for modifications in practice and in nursing care, not only in technical procedures, but also on incorporating values and humanized care initiatives.</td>
</tr>
<tr>
<td>Participation of women in decision-making in the gravid-puerperal cycle: integrative review of nursing care.</td>
<td>It is an integrative review. Scientific productions were fetched in May 2010, in the databases of the Virtual Health Library. Of the eight articles that composed the review, two thematic cores emerge: nursing care Contributions to women's participation in decision-making in the gravid-puerperal cycle; and nursing care Limitations to the participation of women in decision-making in the gravid-puerperal cycle.</td>
<td>Level 5</td>
<td>As a result it was observed in this study that there is an importance of practices and knowledge sharing, from a horizontal relationship between the woman and the Nurse. Thus, the health education shall constitute as a strategy of nursing care in the eye shadow gravid-puerperal cycle, being able to promote the adoption of important measures and beneficial for maternal health and the baby, with the participation of women.</td>
<td>Thus, it is understood that the present study brings significant contributions to the production of knowledge in nursing research, as in vocational education and training of nurses, the perspective of the woman as subject of the process of care, your body and the reproductive process, favors the consolidation of a new paradigm of nursing care to women's health in the gravid-puerperal cycle.</td>
</tr>
<tr>
<td>Rates of infection related to c-section and normal births at the Hospital de Clinicas de Porto Alegre.</td>
<td>Observational character study, whose data were collected in the system of management indicators of the Hospital de Clinicas de Porto Alegre, covering the period January 2004 to December 2010.</td>
<td>Level 4</td>
<td>The Cesarean rate in the hospital de Clinicas de Porto Alegre was 32.55% during the period investigated. Among the live births during the same period, the rate of infection after giving birth by cesarean section was 2.8% and 0.8% after vaginal births.</td>
<td>The rate of infection associated with cesarean section is larger than the related to the normal ports. And that the rates of infection of Cesarean section are decreasing since 2004, after this hospital have adopted as routine administration of antibiotic prophylaxis during anesthetic induction.</td>
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Figure 1. Summary of publications included in the integrative review, according to the title of the article, methods, main results and conclusions.
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Puerperal complications associated with the route of the birth.</td>
<td>Retrospective work conducted by analysis of medical records of 314 patients served in private practice, to assess the immediate postpartum complications, at 157 and 157 patients who underwent vaginal delivery or Caesarian, respectively.</td>
<td>Level 4</td>
<td>The main finding was that the perineal wound infection (episiotomy) with the abdominal surgical wound has identified highest indexes of infection in the abdominal wall.</td>
<td>This high concludes that the caesarea section was shown to be safe procedure that can be run whenever your benefit exceeds the risk.</td>
</tr>
<tr>
<td>Elective Cesarean birth: Maternal and Fetal Complications.</td>
<td>Prospective cohort study, observational, exploratory and documentary with 107 patients who were undergoing elective cesarean, being excluded those which went into labor before the surgery.</td>
<td>Level 2</td>
<td>In this study were studied 107 patients, even in this study, two immediate complications were observed; being a maternal and fetal again. Of 105 patients undergoing caesarean puerperal infection presented a; While in the newborn, a transient tachypnea presented.</td>
<td>In this study, it was concluded that despite the rate of complications maternal and fetal immediate evidenced elective cesarean section have been 0.9%, the elective cesarean section is not a risk-free procedure.</td>
</tr>
<tr>
<td>Epidemiological and clinical profile of patients admitted with diagnosis of puerperal sepsis of pelvic origin in an obstetric ICU in northeastern Brazil.</td>
<td>A cross-sectional study, from February to August of 2010, was conducted. Were investigated the cases of puerperal sepsis of pelvic origin admitted in the ICU Institute of Integral Medicine obstetric Prof. Fernando Figueira (IMIP)-Recife-Brazil. The variables analyzed were: age, origin, Director of prenatal, childbirth, use of pathway vesical probe, use of central venous catheter, intubation, use of vasoactive, Director of relaparotomy, the number of relaparotomies held, Director of hysterectomy, occurrence of complications and death.</td>
<td>Level 3</td>
<td>We have identified 77 admissions for sepsis, and puerperal genital source 35. The average age was 22.6 years, most from cities in the State. 52.9% of women had up to 20 years. 62.5% were mothers and 68.6% had undergone cesarean section. In relation to temperature, 42.8% of the patients presented values below 35° C or above 37.8 °c. Complications occurred in 45.7% of patients. Dialysis was nominated in 40% and vasoactive used in 22.9%. Hysterectomy was performed in 44.1% of the patients, being necessary relaparotomy in 54.3%,</td>
<td>Puerperal sepsis of genital origin is a severe disease, which affects young women of low parity. The frequency of complications and of invasive procedures in this group of patients contributes with the current knowledge about the disease, improving the preparation of puerperal sepsis for dealing centers of genital origin.</td>
</tr>
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</table>

Figure 2. Summary of publications included in the integrative review, according to the title of the article, methods, main results and conclusions.
It is a descriptive research with secondary data from the Department of Informatics of the unified health system and of the Brazilian Institute of Geography and Statistics (IBGE).

The results show that there was an increase of 11.9% in the absolute number of maternal deaths and maternal mortality coefficient in the country, of 52.29 to 65.13 maternal deaths per 100 000 live births. The main causes of maternal deaths were: diseases of the mother, but that complicate pregnancy, childbirth and the puerperium (17.1%); eclampsia (11.8%); gestational hypertension with significant proteinuria (6.2%); postpartum hemorrhage (5.8%); puerperal infection (5.1%) and premature separation of placenta (4.2%). It was found the highest number of maternal deaths in women with 4 to 7 years of schooling (23.8%), race/colour parda (42.7%), with marital status single (53.1%) and 20 to 29 years (41.8%).

The ratio of maternal mortality, including maternal deaths later, was 65.9/100,000 live births (from 2008 to 2010). The location of death was the hospital in about 90% of cases, in both periods. The first triennium, in referral hospitals for high-risk pregnancy, the rate of hospital lethality was 158.4/100,000 births and, in the second, 132.5/100,000 and the main causes were: preeclampsia/eclampsia, puerperal infection, urinary infection and indirect causes. In referral hospitals for low-risk pregnancy, hospital mortality rates were: 76.2/100,000 and 80.0/100,000, and as main causes: hemmorhages, embolisms and anesthetic complications. In 64 (2005-2007) and 71% (2008 - 2010) of cases, death occurred at the hospital of the initial relocation. Were considered avoidable 90% of deaths in the second three-year term.

The findings showed that both the nurse and the doctor are involved in the care of patients with abscess wall after cesarean section which is one of puerperal infections. The physician and responsible for both admission and by draining the wall, the antibiotic therapy and the ressuture, while conducting and evaluating the curative aspect of the wound is made by the nurse. Therefore, the decision to re-suture is taken from the review and discussion of doctors and nurses. It is concluded that the coefficients of maternal mortality in Brazil point to the regional inequalities, presenting a reality that requires interventions in the area of health, to have satisfactory indicators on maternal and child sector.

There are difficulties in meeting the obstetric complications in both levels of attention from low and high complexity. The training of professionals to attend the obstetric emergencies and monitoring the use of protocols in all hospital levels should be prioritized for the reduction of avoidable maternal deaths.

It was observed that internationally puerperal infection has indexes ranging from 3 to 20%, with values of 9%. In Brazil, these rates vary around 1 to 7.2%. In one study, it was observed that puerperal infection is the most common complication of cesarean section.

The findings showed that both the nurse and the doctor are involved in the care of patients with abscess wall after cesarean section which is one of puerperal infections. The physician and responsible for both admission and by draining the wall, the antibiotic therapy and the ressuture, while conducting and evaluating the curative aspect of the wound is made by the nurse. Therefore, the decision to re-suture is taken from the review and discussion of doctors and nurses. The risk of puerperal infection in patients undergoing elective cesarean section is three times higher than subjected to vaginal birth. It is noteworthy that the main risk factors are: premature rupture of ovular and/or work extended delivery membranes, excessive vaginal manipulation (rings); poor aseptic conditions, immune weakness, malnutrition or obesity, surgical trauma, unnecessary cesarean sections and retention ovular remains.

The analysis of medical records of pregnant women, done from January 2004 to December 2010 and their rates of infection caused by these procedures; it was noted in this study that the number of vaginal births is greater than the number of cesarean sections, and
that this relationship is maintained throughout the years.\textsuperscript{5,11} 

In one study observed that cesarean section is associated with maternal complications, even after conducting various settings.\textsuperscript{11} It is argued then, that the percentage of cesarean deliveries related to infection was 2.8\%, and normal deliveries was 0.8 \% (p<0.001), showing that the risk of infection by cesarean births is 3.40 (IC 95\%=2.77-4.16). However, the role of the nurse will be on to prevent, control and reduce puerperal infections to women in the postpartum period.\textsuperscript{3,5} 

It was verified in one of the productions that contribute to nursing care that women can participate in making decisions about their health through educational practices in the field of obstetric care.\textsuperscript{12} Thus, health education becomes a favorable environment for nursing care in pregnancy and childbirth through important and beneficial for postpartum measures. From this perspective, health care for women in the postpartum period in the inpatient unit, rooming in,\textsuperscript{6} is the critical issue that requires discussion and effective nursing actions to achieve control of puerperal infection, through compassionate care as a step towards completeness in the postpartum care, with less inequality, with the technological apparatus and the procedures to meet patient safety. 

In the analyzed productions, we observed that nursing care for this type of infection includes frequent assessment of vital signs mainly temperature that is at least 38°C for two days no, the first 10 days postpartum, excluding the 24 hours of initial. Also in this period, other outbreaks of infections may arise if some care is not established by the nurse.\textsuperscript{4} Thus, this fact is due to the lack of systematic care, such as specific protocols. 

Nursing care is based on scientific principles, which is highlighted the importance of practices and knowledge sharing among the staff nurses and postpartum women.\textsuperscript{12} Thus, educational actions become transformed and build a potentiating strategy of nursing care in pregnancy and childbirth. It is necessary to the field of physiology, anatomy, and sociology, among other sciences to support all actions to address the needs of postpartum women and making work practices of nurses much more elaborated in the context of puerperal infections. 

Despite the growth and strengthening of the nursing profession in particular in the area of infections related to health care, the training model is still guided by the biomedical paradigm, where fragments humans through technical actions often authoritarian by the team that assists.\textsuperscript{6} him this context, is the holding of the nursing process that improves the professional, emerging satisfaction, stimulating innovation and creativity in finding solutions to the problems of nursing care. In hospital-centered model, people see the care the nurse just like those should be applied when someone is sick, and lose sight of what is actually inherent in everyday life. 

The care developed by nurses becomes a facilitator of the process of communication between those who care and those who receive care. Messages nurses have a considerable impact during pregnancy and birth maternal mortality should be accomplished through preventive actions such as basic health, educational, administrative, assists, actions and measures for improvement mainly in hospital medical care.\textsuperscript{13-4} 

It is noteworthy that cesarean offers the greatest risk of complications compared with vaginal birth. However, it is for the nurse to use proper care to women after cesarean section that often is indicated to circumvent problems arising during prenatal and evolution of a vaginal delivery.\textsuperscript{5} Therefore, light technologies are seen as the instrument of the working process of the nurse must be present in the care of women in pregnancy and childbirth.\textsuperscript{12} 

The type of birth to conduct, interventions have had a negative influence on puerperal infections, however, it is observed that several institutions have not worked towards adequate for the care of women with puerperal period in philosophy.\textsuperscript{1,5,6} Therefore, the care of the nurse in the prevention and control of infections has driven improvement process of care through advances brought by the development of research and involvement in those same services, with the main actions: preparation of hospital infection control programs, active search for cases of puerperal infection, surveillance for outbreaks of puerperal infections, participation and training, presentation and discussion of topics related to the prevention and control of puerperal infection and in conducting the surveys and technical advice. 

CONCLUSION 

The present study showed that there are few publications regarding the care of the nurses in the control of puerperal infections. Among the findings highlighted the relationship between scientific technical knowledge of the nurse of puerperal...
infections and their autonomy as health care, and women’s involvement in decisions about care in pregnancy and childbirth. However, the assistance of the nurse in infection control should not only meet the health needs of postpartum women, but also that their actions can inform and guide with bases on the individual needs of the woman.

The result of the study revealed that nurses assess the quality of care through the evidence available that provide subsidies in decision making in day-to-day as in the identification of knowledge and future research involving the control of puerperal infections in hospitals.

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