

PREMATURE DELIVERY: ASSOCIATED CONDITIONS*
TRABALHO DE PARTO PREMATURO: CONDIÇÕES ASSOCIADAS*
TRABAJO DE ENTREGA PREMATURA: CONDICIONES ASOCIADAS*

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ABSTRACT

Objective: to identify which risk factors/clinical conditions are often associated with premature delivery in a reference maternity for high-risk pregnancies. **Method:** quantitative, descriptive, and documentary study. The population studied comprised pregnant women diagnosed with premature delivery and admitted to a public maternity hospital from June to September 2018. **Results:** of the 40 pregnant women, 21 (52.5%) were aged between 20 and 34 years old and, concerning parity, 24 (60%) were multiparous; of the cases that presented some clinical condition associated with premature delivery, urinary tract infection was the most incident complication with 27 (65%) cases. **Conclusion:** the most incident risk factors for premature delivery were maternal age, parity, and complications such as urinary tract infection. It was seen that the professionals involved in prenatal care are charged with the responsibility of providing adequate support for mothers and family members, based on solidarity and welcome, also combining technical and scientific knowledge to reduce morbidity and mortality.

Descriptors: Obstetric Labor; Nursing; Prenatal Care; High-risk Pregnancy; Assistance.

RESUMO

Objetivo: identificar quais os fatores de risco/condições clínicas frequentemente estão associados ao trabalho de parto prematuro em uma maternidade referência para alto risco. **Método:** trata-se de um estudo quantitativo, descritivo, documental. Compreenderam-se, na população estudada, as gestantes com diagnóstico de trabalho de parto prematuro internadas na maternidade de um hospital público no período de junho a setembro de 2018. **Resultados:** identificou-se que, das 40 gestantes, 21 (52,5%) tinham de 20 a 34 anos e, em relação à paridade, 24 (60%) eram multigestas; dos casos que apresentaram alguma condição clínica associada ao diagnóstico de trabalho de parto prematuro, a Infecção do Trato Urinário foi a intercorrência mais incidente, correspondendo a 27 (65%) dos casos. **Conclusão:** constata-se que os fatores de risco mais incidentes para o

desenvolvimento do trabalho de parto prematuro foram: a idade materna, a paridade e intercorrências como a Infecção do Trato Urinário. Visualizou-se que cabe, aos profissionais envolvidos no atendimento do pré-natal, prover suporte adequado para as mães e familiares, baseado na solidariedade e acolhimento, aliando também os saberes técnicos e científicos de modo que se reduza a morbimortalidade.

Descritores: Trabalho de Parto Prematuro; Enfermagem; Gravidez; Cuidado Pré-Natal; Gravidez de Alto Risco; Assistência.

RESUMEM

Objetivo: identificar qué factores de riesgo / condiciones clínicas se asocian frecuentemente con el parto prematuro en una maternidad de referencia de alto riesgo. **Método:** se trata de un estudio cuantitativo, descriptivo, documental. En la población estudiada se entendió que las gestantes diagnosticadas de parto prematuro ingresaron en la maternidad de un hospital público de junio a septiembre de 2018. **Resultados:** se identificó que, de las 40 gestantes, 21 (52,5%) tenían entre 20 y 34 años y, en relación a la paridad, 24 (60%) eran multigrávidas; de los casos que presentaron alguna condición clínica asociada al diagnóstico de parto prematuro, la Infección del Tracto Urinario fue la complicación más incidentes, correspondiendo a 27 (65%) de los casos. **Conclusión:** parece que los factores de riesgo más incidentes para el desarrollo de parto prematuro fueron: edad materna, paridad y complicaciones como Infección del Tracto Urinario. Se vio que corresponde a los profesionales involucrados en la atención prenatal brindar un apoyo adecuado a las madres y familiares, basado en la solidaridad y la acogida, combinando también los conocimientos técnicos y científicos con el fin de reducir la morbilidad y la mortalidad.

Descriptores: Trabajo de Obstetricia; Enfermería; Cuidado prenatal; Embarazo de alto riesgo; Asistencia.

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INTRODUCTION

Premature delivery is one of the main gestational complications and represents an important cause of neonatal morbidity and mortality. Premature delivery is characterized by the spontaneous delivery between 22 to 36 weeks and six days of gestation, evidenced by the presence of effective and persistent uterine contractions, cervical fading equal to or greater than 80%, and cervical dilation equal to or greater than one centimeter.¹ Premature delivery can be classified according to its clinical evolution in elective or spontaneous, the first of which occurs mostly due to maternal complications. The second tends to be multifactorial and includes unknown causes.²

It appears that the diagnosis of premature delivery is often complex due to a large number of related factors. Besides, its incidence has been maintained in recent decades despite obstetric interventions, affecting about 10% of pregnancies and being responsible for 75% of births before the 37th week of pregnancy. It is observed, however, that adequate prenatal interventions collaborate to reduce complications caused by premature delivery.²

It is understood that prenatal care assistance is of fundamental importance in the screening and diagnosis of pregnant women's risk for premature delivery. Antenatal consultations allow taking measures to minimize or even prevent the increase in morbidity and mortality rates associated to this complication. In this perspective, a gestational risk assessment should be carried out in all consultations, following specific criteria. If identified, the pregnant woman should be referred to a delivery facility with extensive resources to receive care appropriate to her condition. The absence of prenatal care has often been associated with an increased risk of premature births, low birth weight, and maternal and child mortality.³⁻⁴

The importance of this study lies in determining the maternal risk factors and the clinical conditions associated with premature delivery to provide elements that guide health services' actions. In this context, the study is relevant since premature delivery is related to maternal morbidity and fetal complications associated with prematurity. Thus, this study has the following guiding question: "What are the clinical conditions and maternal risk factors frequently associated with premature delivery?".

OBJECTIVE

To identify which risk factors/clinical conditions are often associated with premature delivery in a reference maternity for high-risk pregnancies.

METHOD

This is a quantitative, descriptive, and documentary study, with the analysis of medical records and pregnant women records, in addition to an interview guided by a semi-structured questionnaire. The study was carried out in the pre-delivery ward of a public maternity hospital for high-risk pregnancies located in Maceió, Alagoas.

The following inclusion criteria were used: women who received care at the hospital selected for the study, admitted with a diagnostic hypothesis of premature delivery, with gestational age between 22 weeks to 36 weeks and six days, and admitted to the hospital during the period from June to September 2018. Pregnant women diagnosed with intrauterine fetal death, women who were unable to answer the questions due to their emotional condition, and women in the immediate postpartum of premature births were excluded.

For the sample's composition, the average number of births assisted in the hospital chosen for the study (50 monthly births) associated with Brazil's preterm birth rate, which is 17.7%, were considered.⁵ The sample corresponded to 40 pregnant women after the sample calculation obtained in the Open Epi statistical software and considering a 95% confidence interval, a 20% prevalence, and a 5% sample error.

The data collection consisted in checking the medical records of pregnant women who received the diagnosis of premature delivery and interviewing them to obtain the following study variables: sociodemographic and obstetric data, routine examinations performed, and complications associated with the diagnosis. Data were collected after approval of the project by the Ethics and Research Committee of the Federal University of Alagoas under number CAAE: 87670018.2.0000.5013. All participant women signed an Informed Consent Form. For the analysis, the program Statistic Package for Social Science - SPSS (version 20) was used and, after the analysis, the data were organized descriptively, using tables containing the absolute (n) and relative (%) frequencies. The chi-square test was used for the correlation of categorical variables ($p < 0.05$).

RESULTS

A total of 40 pregnant women diagnosed with premature delivery admitted to the pre-delivery ward of a high-risk maternity hospital participated in the study. Given the collection and analysis of data regarding the participants' characterization, the presence of certain risk factors for premature delivery was identified.

Table 1. Characterization of hospitalized pregnant women diagnosed with premature delivery.
Maceió (AL), Brazil, 2018. (N = 40)

Characteristic/Risk factors	Sample description	
	N	%
Maternal Age		
<15 years	2	4.8
15 to 19 years	17	42.5
20 to 34 years	21	52.5
Gestational Age		
22 to 27 weeks	10	25.0
28 to 31 weeks	12	30.0
32 to 36 weeks	18	45.0
Parity		
Primigravida	16	40.0
Multigravida	24	60.0
Previous prematurity		
Yes	16	40.0
No	24	60.0
Smoking		
Yes	1	2.5
No	39	97.5

Regarding the occurrence of premature delivery, it was found that in most cases (75%), there was an association of other clinical conditions resulting from injuries or complications, while 25% were of idiopathic origin.

Some conditions and complications associated with premature delivery (N = 32) were identified (Table 2).

Table 2. Problems/complications associated with premature delivery observed among the interviewed pregnant women. Maceió (AL), Brazil, 2018. (N = 32)

Diseases/complications associated with premature delivery	N	%
Premature rupture of ovular membranes	2	4.87
Istmo-cervical insufficiency	1	2.5
Transvaginal bleeding	1	2.5
Oligohydramnio	1	2.5
Bacterial vaginosis	1	2.5
Urinary tract infection	26	65
TOTAL	32	80

Figure 1 shows the distribution of prenatal consultations performed by the study participants, indicating how these women have accessed health care during the gestational period. All pregnant women (100%) were undergoing prenatal care and most attended to the number of consultations recommended by the Ministry of Health, that is, a minimum of six consultations considering that none completed 37 weeks of gestation before admission to the hospital.

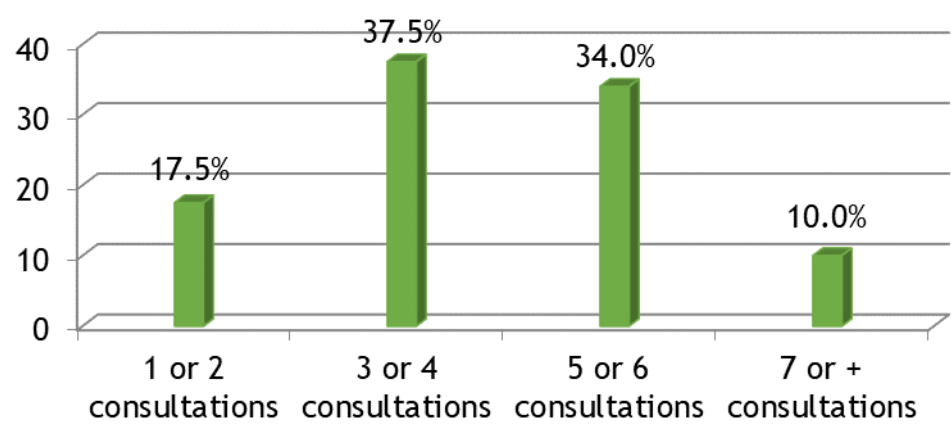


Figure 1. Number of prenatal consultations attended by the participants. Maceió (AL), Brazil, 2018.

It is noted that the clinical condition most associated with premature delivery identified in this research and a relationship with early identification/diagnosis by laboratory examination were positive. This demonstrates

that, in the prenatal period, pregnant women can be identified with risk factors for triggering premature delivery and what strategies can be used early for prevention.

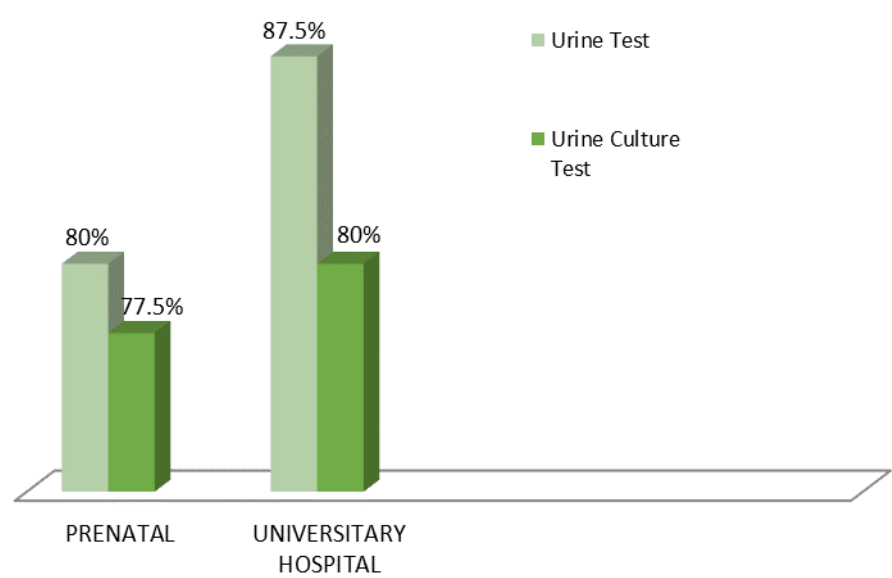


Figure 2. Number of pregnant women diagnosed with premature delivery who underwent exams during prenatal care, aiming to monitor and diagnose diseases early. Maceió (AL), Brazil, 2018.

DISCUSSION

The maternal profile found in this study based on the sample's characteristics was mean age of 25 ± 9.5 years, with the youngest participant being 14 years and the oldest 34 years old. The Ministry of Health considers that the younger the pregnant woman, the greater the risk of injury as uterine immaturity and/or inadequate blood supply to the cervix is related to maternal age associated with biological immaturity – a cause of prematurity, thus showing that adolescent pregnancy is a risk factor for maternal health problems, as well as for perinatal complications.⁶

On the other hand, some studies have highlighted the existence of controversies about maternal age as a risk factor for poor perinatal outcomes. These studies have suggested that adolescents and women aged 35 and over are generally susceptible to increased risk of adverse perinatal outcomes and maternal morbidity and mortality. It is known that, for adolescents, these risks have been primarily explained by unfavorable socioeconomic characteristics, while biological factors related to age have been related to increased risk for older women.⁷⁻⁸

Regarding the gestational age of the participants, it was observed that there was a higher rate of women in the course of the 32nd to 36th weeks of pregnancy. According to the research project "*Nascer no Brasil*", late preterms represent the vast majority of preterm infants since most of the complications associated with this condition seem to be directly related to the second half of pregnancy, a fact justified by organic and gestational factors.⁹

In this study, it was found that the majority of pregnant women are multiparous and have a history of previous premature births. Thus, it is noteworthy that the history of previous preterm delivery represents the best isolated clinical predictor of preterm delivery among multiparous women, with recurrence around 16%. Multiparity is one of the most important risk factors in the previous history of preterm birth. Women who have had more than three deliveries are at greater risk than those who had two or fewer deliveries, which may be linked to how the fertilized egg is implanted on the uterine wall.¹⁰

Concerning smoking exposure during pregnancy, it is noted that it may act as a risk indicator for premature birth. Due to the cumulative effect of smoking, the risk of premature delivery would increase, which was not seen in the study, as the number of smoking pregnant women was low.¹¹

It was evidenced that most pregnant women presented some injury or complication and that, during the prenatal period, tests were performed that could help in the early treatment. This reinforces the importance of prenatal care in reducing the rates of premature births, as through such preventive healthcare the risk factors for premature delivery are identified and the measures to prevent this complication are implemented. The absence of prenatal care or the insufficient number of consultations is considered a risk factor for premature delivery, being closely related to its incidence.^{6,12}

It is clear, also considering the incidence of injuries and complications, that the urinary tract infection (UTI) presented an alarming level since most pregnant women had this clinical condition. UTIs are considered the second type of infection detected during pregnancy, representing a common problem in primary care caused mainly by poor hygiene and low water intake.¹³

It is reflected that the lack of prenatal care for the diagnosis and treatment of this condition may be associated with the quality of care offered, as the association of UTI with prematurity is relevant. It was demonstrated, however, that most women attended prenatal consultations and bearing in mind that none completed 37 weeks of gestation, it can be concluded that there was a failure in this monitoring, as the pregnant women reported that they had undergone treatments, but the tests to verify the effectiveness of such treatments were not repeated.¹⁴

Health professionals, during prenatal care, must be attentive to all the signs and symptoms reported by pregnant women, in addition to the regular request for exams recommended during the gestational period, proper interpretation, and registration in the pregnant woman's record. Appropriate treatment and follow-up can result in effective care. Thus, the quality of care is sought, as well as the health promotion and the prevention of diseases so that perinatal morbidity and mortality rates can decrease.¹⁵

In this study, most women had UTI during the prenatal period proven by urinary exams. Through clinical and laboratory tests offered during prenatal consultations, it is possible to identify risk situations and act early, in addition to helping to reduce maternal and neonatal morbidity and mortality during this period. During the first gestational trimester, efforts should be directed towards expanding prenatal coverage, basic exams and vaccines, stimulating health education activities, and using indicators that internally monitor prenatal care quality allowing a better adaptation of prenatal actions carried out in primary care.¹⁶

It is understood that, in the hospital environment, these tests should also be performed so that the association between premature delivery and UTI can be considered. Thus, it is necessary to value the routines of care offered to pregnant women to raise awareness among women and professionals about the importance of this control and effective monitoring of premature delivery –a complication that can lead to the death of mother and child.^{9,15}

CONCLUSION

The most incident risk factors for premature delivery found in this study were maternal age, parity, and complications such as UTI. About the importance of prenatal care in the face of complications during pregnancy, the professionals involved in this type of service are responsible for providing adequate support for mothers and family members, based on solidarity and welcome, also combining technical and scientific knowledge, so that maternal morbidity and mortality can be reduced.

Gestational risk must be assessed, and the investigation of the obstetric history must be carried out from the first consultation, as this assessment is related to the quality of prenatal care, which is based on one of the main tools for quality prenatal care with a view to reducing diseases that increase maternal and fetal risks. Through prenatal consultations, women and professionals can dialogue and share experiences making patients able to recognize and adhere to treatments aiming at improving the quality of care and of the dyad.

The ability to conceive and give birth in the right conditions depends on a safe and hassle-free assistance. Strategic actions for pregnant women during the critical pregnancy-puerperal cycle are vital since, in the prenatal period, women must be guided to experience the whole process with a low risk of complications for them and their babies.

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