



MATERNAL CHARACTERISTICS ON THE OCCURRENCE OF LATE PREMATURITY

CARACTERÍSTICAS MATERNAS NA OCORRÊNCIA DA PREMATURIDADE TARDIA

LAS CARACTERÍSTICAS MATERNAS EN LA OCURRENCIA DE PARTO PREMATURO TARDÍO

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ABSTRACT

Objective: to characterize sociodemographic, obstetric factors and obstetric interoccurrences of mothers of late premature infants by maternal age groups. **Method:** a descriptive, cross-sectional and retrospective study of a quantitative approach performed in a university hospital with 288 women and their 318 late premature infants, with 34 to 36 weeks and six days of gestational age, born in 2013. Data was collected in electronic medical records and a descriptive statistical analysis of the data was carried out. **Results:** particularities were found regarding prenatal care, substance use during pregnancy, obstetric complications, type of pregnancy, delivery route and weight of newborns in the studied groups. **Conclusion:** regarding the characterization of women, the following stand out: public service, less than eight years of study and gestational intercurrents. The most frequent complications in late prematurity can be minimized. Thus, prenatal care should be directed to the needs of the maternal age group. **Descriptors:** Infant, Premature; Prenatal Care; Pregnancy, High-Risk.

RESUMO

Objetivo: caracterizar fatores sociodemográficos, obstétricos e intercorrências obstétricas das mães de prematuros tardios por faixas etárias maternas. **Método:** estudo descritivo, transversal e retrospectivo, de abordagem quantitativa, realizado em hospital universitário com 288 mulheres e seus 318 filhos prematuros tardios, com 34 a 36 semanas e seis dias de idade gestacional, nascidos em 2013. Os dados foram coletados em prontuários eletrônicos e foi realizada a análise estatística descritiva dos dados. **Resultados:** foram encontradas particularidades referentes à realização do pré-natal, uso de substâncias na gestação, intercorrências obstétricas, tipo de gravidez, via de parto e peso dos recém-nascidos nos grupos estudados. **Conclusão:** quanto à caracterização das mulheres, destaca-se: atendimento na rede pública, menos de oito anos de estudo e intercorrências gestacionais. As intercorrências mais frequentes na prematuridade tardia podem ser minimizadas. Assim, o atendimento pré-natal deve ser direcionado às necessidades próprias da faixa etária materna. **Descritores:** Prematuro; Cuidado Pré-Natal; Gravidez de Alto Risco.

RESUMEN

Objetivo: caracterizar factores sociodemográficos, obstétricas y intercurrencias obstétrica de las madres de bebés prematuros tardios por grupos de edad materno. **Método:** estudio descriptivo, transversal y retrospectivo, enfoque cuantitativo, llevó a cabo en el hospital Universitario con 288 mujeres y sus 318 hijos prematuros tardios con 34 a 36 semanas y seis días de edad gestacional, nacido en 2013. Los datos fueron recogidos en cartas electrónicas y se realizó el análisis estadístico descriptivo de los datos. **Resultados:** se encontraron particularidades relacionadas a la realización del prenatal, uso de sustancias en el embarazo, complicaciones obstétricas, tipo de embarazo, via de parto y peso de los recién nacidos en los grupos de estudio. **Conclusión:** cuanto a la caracterización de las mujeres se destaca: atendimento en la red pública, menos de ocho años de estudio y intercurrencias gestacional. Las complicaciones más frecuentes en el nacimiento prematuro tardío pueden ser minimizadas. Así, la atención prenatal debe orientarse a las necesidades propias del grupo de edad materna. **Descriptores:** Prematuro; Atención Prenatal; Embarazo de Alto Riesgo.

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INTRODUCTION

Late premature infants are newborns with gestational age between 34 and 36 weeks and six days.¹ In the United States (US), these represent about 74% of all cases of prematurity.² In 2012, it was estimated that the rate of world prematurity was close to 84.3% of premature births, with a total number of 131,296,785 born alive.³

In Brazil, so far, there are no published rates on the occurrence of late premature births. With regard to prematurity in general (newborns with gestational age up to 36 weeks + six days of gestation), in 2010, Brazil ranked 10th in the ranking of countries with the highest number of premature infants with 279,300 births.³

Late premature infants are more prone to feeding problems, temperature instability, sepsis, difficulties in bilirubin excretion, hypoglycaemia, and respiratory problems than full-term infants because of their immaturity. These newborns have significantly more clinical problems, detected still in the maternity, soon after the birth. In order to generate a higher hospital cost when compared to term newborns.⁴⁻⁵

There is evidence that the risk of neonatal morbidity is higher in late premature infants compared to full-term infants.¹ Some maternal infections, such as those involving the fetus during pregnancy known as TORCH syndrome (toxoplasmosis, rubella, cytomegalovirus, herpes, syphilis and others), and other clinical conditions related to pregnancy and to the pregnant woman herself may be related to the occurrence of late prematurity. Some examples of these conditions are chronic diseases (systemic arterial hypertension, diabetes), problems related to high blood pressure and diabetes manifested during pregnancy (pre-eclampsia, eclampsia, gestational diabetes), conditions related to amniotic fluid volume and placental implantation (oligo- or polyhydramnios, previous placenta), assisted reproduction (twinning), premature labor (PL), and premature rupture of amniotic membranes (PROM).^{2,6}

Early preterm infants have specific Nursing care needs and are suited to their specificities for their adequate neuropsychomotor development. However, these are often treated as full-term newborns, at labor and birth, because many are of adequate weight and the same size as those born at term.⁷⁻⁸

Prematurity is a subject that has been studied by several groups of researchers over the years, but, it is noticed, through a search

in the databases, that there are more publications related to the extreme prematurity and little production of research related to late prematurity. Thus, late prematurity is a subject with few publications in national surveys, which makes it difficult to know about late prematurity in the country.⁷⁻⁸

Prenatal care is the first step in promoting a healthy birth and is fundamental for the reduction of maternal and fetal morbidity and mortality.⁹ Nursing care in prenatal care is essential for the monitoring of women's health during pregnancy, deserving a broader view on issues related to the prevention of prematurity. Knowing the conditions that predispose to late prematurity may contribute to the prevention of unfavorable gestational and neonatal complications.

OBJECTIVE

- To characterize the socio-demographic, obstetric factors and obstetric interoccurrences of the mothers of late premature infants grouped by maternal age groups.

METHOD

A transversal, descriptive and retrospective study, with a quantitative approach. The population of women and their late premature newborns, users of the maternity hospital of the Clinical Hospital of Porto Alegre / RS, between January 1st and December 31st, 2013, during a period of 12 consecutive months, was analyzed to contemplate the total of premature births.

The data collection period was from January to June 2014. For the data collection, the Medical File and Health Information Service of the institution, a *Query* referring to the bank of live births of 2013 was requested, in order to identify premature infants and their mothers. A collection tool, was used, built for this research, to search for data in maternal and neonatal electronic records. This was applied only by the researcher, aiming at the standardization of collection. A pilot of the collection instrument was carried out, in a total of ten forms, so that the adequacy to the research objectives could be obtained from the data available in the medical records. For the pilot test, electronic records were used with data of late premature newborns born in the year 2014 and their mothers. This data was not used in the analysis of the data because they did not belong to the year determined for said collection. After the pilot test, small changes were made to improve the obtained

information, according to the availability and format of the information in the medical records.

As inclusion criteria, the study included women and their children born alive, with gestational age of 34 to 36 weeks and six days, regardless of birth weight, whether or not they had congenital malformations, single or multiple gestations, whose births occurred in the Clinical Hospital of Porto Alegre / RS. The evaluation of gestational age was performed using the Capurro Method, defined by the medical record on the first physical examination of the newborn. Mothers and their late premature children would be considered excluded if mothers died during hospitalization, but, there were no cases of maternal death in the study population.

The data was entered in a spreadsheet using the Statistical Package for the Social Sciences (SPSS) software, version 18. For the statistical analysis, the descriptive treatment of the variables was performed. Continuous variables were described as mean and standard deviation. Categorical variables were described in absolute and relative frequencies. Data was presented by means of tables. In the analysis of the data, the population of women was subdivided into three groups, grouped by age groups. The group of mothers with ages between 14 and 19 years old, called adolescents, were grouped in group 1; in group 2, mothers with ages between 20 and 34 years, denominated young adult women; and in group 3, mothers aged 35 or over, classified as adult women. The categorization of women in these three groups was based on the psychosocial risks associated with gestation and on the reflections of

motherhood on the life of adolescents and women over 35 years. In addition, the scientific literature brings the classification of women by age groups in several studies it was decided to follow this classification.¹⁰

The research project was sent to the Research Ethics Committee of the Clinical Hospital of Porto Alegre / HCPA and approved under the opinion 140089/14, CAEE Plataforma Brasil 27720414300005327.

RESULTS

During the study period, from January 1st to December 31st, 2013, 3890 newborns were born in the hospital where this study occurred, of which 446 were premature (11.46%). Of these, 318 were considered premature newborns, accounting for 71.3% of premature births. Thus, the research was performed with the totality of premature newborns and their respective mothers.

The total number of mothers was 288, since 29 of the births studied were multiple (28 twin pregnancies and one triplet gestation), representing 10.1% of the total number of pregnancies studied. The mean age of mothers of late preterm infants was 27.31 years (SD: 6.9), with minimum and maximum ages of 14 and 44 years, respectively. Women came predominantly from Porto Alegre and from municipalities in the metropolitan region (93.4%). In their totality, the births and hospitalizations were attended in the public health network. Table 1 characterizes the population of women present in the study, sociodemographically.

Table 1. Distribution of the sociodemographic characteristics of the 288 mothers of late preterm infants, by maternal age, according to absolute and relative frequencies. Porto Alegre (RS), Brazil, 2013.

Intercurrences / age groups	Group 1		Group 2		Group 3	
	n	%	n	%	n	%
Skin Color:						
White	36	73.5	146	75.6	36	78.3
Black	6	12.2	29	15.0	5	10.9
Brown	7	14.3	17	8.8	5	10.9
Yellow	0	0.0	1	0.5	0	0.0
Education:						
Up to 8 years schooling	30	61.2	84	43.5	16	34.8
More than 8 years of schooling	19	38.8	109	56.5	30	65.2
Marital Status:						
With partner	39	79.6	172	89.1	44	95.7
Without partner	2	4.1	7	3.6	1	2.2
No registry	8	16.3	14	7.3	1	2.2
Place of residence:						
Porto Alegre	29	59.2	115	59.6	27	58.7
Greater Porto Alegre	16	32.7	69	35.8	13	28.3
Interior of Rio Grande do Sul	4	8.2	9	4.7	6	13.0
Reason for hospitalization:						
Factors related to the newborn	3	6.1	19	9.8	10	21.7
Intercurrences related to the current gestation	46	93.9	167	86.5	34	73.9
Intercurrences prior to the current gestation	0	0.0	7	3.6	2	4.3
Total	49	100	193	100	46	100

The obstetric history of these pregnancies presented particularities in the groups, and

these will be presented in table 2. The only case of trigemelaarity occurred in group 3.

Table 2. Distribution of obstetric interurrences of 288 mothers of late preterm infants in current pregnancies, by maternal age group, according to absolute and relative frequencies, 2013 *. Porto Alegre (RS), Brazil, 2013.

Intercurrences / age groups	Group 1		Group 2		Group 3	
	n	%	n	%	n	%
Twin pregnancy	3	6.1	19	9.8	7	15.2
Threat of abortion	0	0.0	9	4.7	3	6.5
Premature rupture of amniotic membranes	24	49.0	89	46.1	19	41.3
Uterine cerclage	0	0.0	1	0.5	0	0.0
Placental abruption	3	6.1	8	4.1	3	6.5
Gestational diabetes	1	2.0	18	9.3	5	10.9
Diabetes mellitus	0	0.0	8	4.1	1	2.2
Hyperemesis gravidarum	0	0.0	3	1.6	0	0.0
Oligodrhmnium	1	2.0	18	9.3	1	2.2
Polydamnium	0	0.0	3	1.6	2	4.3
Previous Placenta	0	0.0	4	2.1	2	4.3
Restricted intrauterine growth	1	2.0	25	13.0	7	15.2
Previous systemic arterial hypertension	0	0.0	22	11.4	7	15.2
Conditions related to hypertension during pregnancy	8	16.3	34	17.6	7	15.2
Associated cardiac disorders	0	0.0	4	2.1	0	0.0
Preterm labor	43	87.8	129	66.8	33	71.1
Anemia	3	6.1	3	1.6	2	4.3
HIV / AIDS	0	0.0	8	4.1	2	4.3
Syphilis	0	0.0	8	4.1	0	0.0
Toxoplasmosis	1	2.0	0	0.0	0	0.0
Hepatitis C	0	0.0	0	0.0	2	4.3
Genital Herpes	1	2.0	1	0.5	0	0.0
Urinary tract infection	15	30.6	57	29.5	5	10.9
Vaginal infection	2	4.1	16	8.3	4	8.7

* The same woman may have presented more than one current gestational obstetric complication.

As for prenatal care, the frequency of non-performance in group 1 was 4.1%. Regarding the number of prenatal consultations, it was observed that the frequencies of groups 1 and 2 are quite close, 59.2 % and 56.5%, while group 3 presented 67.4%, performing six or more consultations. Regarding prenatal care

and consultations, the frequency of records of referrals to high-risk prenatal services in group 3 was observed, with 60.9%, and in the other two groups were 18.4% in group 1 and 39.4% in group 2.

Concerning the performance of early ultrasound in pregnancy, 74.5% of adolescent

mothers did not perform ultrasound scans before 12 gestational weeks, while in the other two groups non-performance was 48.9% in group 2 and 41.3% in the group 3.

In relation to parity, high multiparity rates (above four deliveries) were observed in groups 2 and 3, with frequencies of 3.1% and 15.2%, respectively. Alcohol consumption, 5.2% in group 2, 2.1% in group 1 and 0% in group 3 were identified as alcohol, tobacco and illicit drug consumption; 27.5% of tobacco in group 2, 8.3% in group 1 and 19.6% in group 3; and for illicit drug consumption was 4.7% in group 2, 2.1% in group 1 and 0% in group 3.

Regarding the way of delivery, 59.6% of the births were by vaginal deliveries and 40.4% by cesarean sections in group 1; 45.3% for vaginal deliveries and 54.7% for caesarean sections in group 2; 20.4% for vaginal deliveries and 79.6% for caesarean sections in group 3.

The birth weight of the study's newborns was analyzed according to the world classification, with newborns with birth weights of up to 2500g called low birth weight. In the study, 53.1%, 47.7% and 45.7% represented, respectively, the low birth weight frequencies of the newborns in groups 1, 2 and 3.

DISCUSSION

Late premature births account for the largest share of births in premature birth.² Premature birth, being the leading cause of childhood morbidity and mortality, is one of the global health challenges, especially, for industrialized countries.

In this study, the rate of 71.3% of late premature births, among premature births was identified, which is in line with the international literature, that places this rate between 71% and 74%.^{2,11} There are no original articles published with national data with rates related to late prematurity.

The frequency of the origin of the women in the three groups was very similar, being the majority of the mothers of the municipality of Porto Alegre. It was observed that more than 1/3 of the population came from municipalities in the greater Porto Alegre or cities in the interior of the State of Rio Grande do Sul, which may be due to the fact that the hospital under study is a reference for high risk.

It was identified that 1/3 of the mothers of late premature infants were adolescents, aged 14 to 19 years (adolescents), and 1/3 above 35 years, groups considered more susceptible to maternal morbimortality and adverse perinatal outcomes.¹²⁻³ One study on the

impact of maternal age on perinatal outcomes identified that the highest percentage of premature infants were among adolescent females (21.9%) and elderly females (19.9%).¹⁴

Adolescent pregnancy is related to increased risks of low birth weight and restricted intrauterine growth, which may result in premature birth.¹² Studies indicate that pregnant women, with ages above 35 years, present, more frequently, situations such as spontaneous and induced abortion, increased risk of perinatal mortality, low birth weight infants, premature births and small infants for gestational age, and these pregnancies have been considered risk pregnancies, due to the increasing incidence of hypertensive diseases, premature ruptures of amniotic membranes and diabetes in this population.^{12,15}

Regarding the skin color and ethnicity of the population of mothers studied, a majority of women who declared themselves white in the three groups, 73.5%, 75.6 and 78.3% respectively, which was registered by the Brazilian Institute of Geography and Statistics (IBGE) in the 2010 census for the city of Porto Alegre, with a value of 79.23%, for mostly white women.¹⁶

As for schooling, more than half of the mothers had completed more than eight years of schooling, but, when the groups were observed, it was found that, this information is not true in the adolescent women, with the majority being women with up to eight years of schooling. This fact will probably be explained by maternal age, and gestation may be experienced during the school phase and not by evasion. Prenatal attendance was carried out by practically all the women studied.

In this study, the data regarding maternal schooling and the number of prenatal visits do not seem to have contributed to avoid or minimize the occurrence of late prematurity, since the majority of women had a record of six or more consultations on their prenatal cards, as recommended by the Ministry of Health in prenatal care.¹⁷ However, it was not possible to identify data related to the local variable of Prenatal care due to lack of records in the medical records.

The prenatal care was less accomplished in the group of adolescent women. Regarding the number of prenatal consultations, it was observed that the rates for six or more prenatal consultations in adolescents and young adults are quite close, while the adult group represented the highest frequency. Still in relation to prenatal care and consultations, a higher percentage of records of referrals to

high-risk prenatal services in the adult group were observed. In order to perform an early prenatal ultrasound, it was noticed that there is a great difference in the rates of achievement. The frequency of these increases with increasing age. Despite advances in obstetric diagnoses and therapeutic methods, the evidence suggests that gestation over 35 years is associated with gestational risk situations.¹⁸ The highest number of referrals for high-risk referrals in the age group of women aged 35 years or older may suggest an increased concern of the professionals on the basis of evidence of gestational risk for this age group.

Although the literature states that prematurity is more present in women at the extremes of the ages, adolescents and over 35 years, in this study, 2/3 of the population, that is, the majority, presented late-onset prematurity outside these age groups considered of greater risk.

The Brazilian Ministry of Health states that high-risk prenatal care covers about 10% of pregnancies and that the lack of referral to the specialized service of pregnant women at risk would represent an increase in the probability of complications during pregnancy and maternal and / or fetal death.¹⁷ In this study, it was observed that a little more than half of the women had a record of referrals for high-risk care services, since it is probable that a large part of the pregnancies studied would need this referral. These premature births represent a major risk for neonatal morbidity and mortality, as well as gestational and maternal risks. This fact is noteworthy, since the pregnant women performed an adequate number of consultations. It seems that the quality of prenatal care received by the mothers of late preterm infants may have been compromised.

For more than half of the mothers, there was no record of early ultrasound, that is, before the 12 gestational weeks, and of these, a small portion did not even perform any ultrasound in the gestational period. In the groups, the non-performance of early echography showed differences, 71.4% of non-achievement in group 1, 46.6% in group 2 and 41.3% in group 3, that is, in the group of adolescents there was a lower frequency of achievement.

Human fetal growth has a pattern of development characteristic of the species, which is constant in the first half of pregnancy, and this pattern growth is independent of gender, ethnic group, geographic or socioeconomic conditions, and, after this initial period, this standardization of

development decreases, and, so, the accuracy of the calculation of gestational age by this indicator at more advanced gestational ages becomes less reliable, so for the clinical investigation of gestational age it is necessary and preferable to perform a routine ultrasound in the first half of pregnancy.¹⁹

It is assumed that the low rate of early ultrasound is justified by some difficulty in the availability of access to the examination in the health care network or by the delay in starting prenatal care. To know, more accurately, the gestational age can help in the prevention of the occurrence of prematurity and its possible complications.

Regarding the reasons for hospitalization, the study presented higher percentages of hypertension-related conditions in the group of young adult mothers, and an increase in hospitalization rates due to issues related to newborns in the adult women group. Regarding parity, it was observed, as expected, that it increased according to the maternal age groups, and the high multiparity rates (above four births) were higher in the adult mothers group.

Regarding the way of delivery, the frequency of vaginal deliveries decreases as the age of women increases, while the frequency of cesarean sections increases. According to a recent survey carried out in Brazil, the Brazilian reality, regarding delivery and birth in general shows high rates of cesarean births in the country, with 44.8% in the public sector and 89.9% in the private sector For primiparous women, and 40.7% in the public sector and 84.5% in the private sector for multiparous women.²⁰

As for consumption of alcohol, tobacco and illicit drugs, it was noticed a higher consumption of these in the group of young adult mothers of newborns. Although the use of alcohol and illicit drugs showed low frequencies, when the use cases were observed separately, they provided data suggestive of impairment in fetal growth and development, with a majority of low birth weight infants being observed in both cases. A systematic review in 2007 found no convincing evidence of adverse effects on gestation related to alcohol exposure, but, also found no evidence in the literature of safe levels of alcohol consumption during pregnancy.²¹

Regarding tobacco use, this study showed higher frequencies than those obtained for alcohol and illicit drug use, and also showed possible repercussions for fetal growth and development, represented by the majority of low birth weight infants. When the exposed cases are selected. Regarding the frequency

Buendgens BB, Teles JM, Gonçalves AC et al.

Maternal characteristics on the occurrence...

of tobacco use during pregnancy, a study²² shows a difference of almost 10% less in consumption. One study found an association between maternal smoking and low birth weight and prematurity.²³

According to the National Cancer Institute, 17.4% of the Brazilian population is smokers and the South Region has the highest percentage of smokers in the country and also the highest concentration of female smokers. However, it is worth mentioning that the South Region is the region of the country with higher tobacco production and possibly this fact should influence the promotion and acceptance of tobacco consumption.²⁴

Regarding the obstetric complications, PL and PROM were the ones that obtained the highest frequencies. Still with relevant percentages, the urinary tract infections and the intercurrents related to the hypertension in the gestation appeared. PROM, PL, anemia, toxoplasmosis, genital herpes, and Urinary Tract Infection (UTI) occurred with higher frequencies in adolescent women when groups were analyzed separately (group 1). Uterine cerclage, diabetes mellitus, hyperemesis gravidarum, oligohydramnios, conditions related to hypertension during gestation, associated heart diseases and syphilis had higher frequencies in young adult women, when groups were analyzed separately (group 2). Twinning, abortion threats, Premature Placental Abruptio (PPA), gestational diabetes, polyhydramnios, previous placenta, Restricted Intrauterine Growth (RIUG), Systemic Arterial Hypertension (SAH), HIV / AIDS, Hepatitis C and vaginal infection had higher frequencies in adult women when groups were analyzed separately (group 3).

As for infections, HIV / AIDS was not found in group 1 and frequencies were practically equal in the other two groups. Syphilis was only reported in group 2; Toxoplasmosis, only in group 1; Hepatitis C, only in group 3; Vaginal herpes was more frequent in group 1. Urinary tract infection had high incidences and was more frequent in groups 1 and 2. Vaginal infection was reported in all three groups and presented higher frequencies in group 3. For infections, it was noticed that Groups 1 and 2 presented a higher frequency of infections, and similar rates in relation to the number of infections presented in the current gestation. Group 3 presented lower frequency of infections and lower concomitance of infectious intercurrents in the current gestation.

The most common causes for the indication of late preterm birth are pre-eclampsia (46%); fetal indications (18%); PL (14%), and other

indications (20%).²⁵ A population cohort was conducted in Canada for some obstetric questions in pregnancies with births of late preterm infants, with women with characteristics similar to those of this study; the frequencies of cases of diabetes mellitus, gestational diabetes and previous placenta presented similar percentages, even for cases of PL, hypertension, preeclampsia and eclampsia, the Canadian study presented lower frequencies.²² Among the infectious diseases, a high rate of urinary tract infections and vaginal infections.

Most of the women studied did not present any infectious pathology in the current gestation, but one study²² presented a frequency of 1.25% of infections during pregnancy. The rate of this study was 40.3%, a very marked difference. This difference may be related to the different socioeconomic and health conditions between the two populations studied.

About half of the newborns had a birth weight of less than 2,500 g or low birth weight, with no significant differences in the percentages between groups. Low birth weight is reported as a major influence on neonatal morbidity and mortality, and this newborn is 20 times more risk of death when compared to NBs with higher weights. This condition of low weight may be the result of prematurity, as well as, other conditions such as, for example, restricted intrauterine growth. Still on these NBs, the study by Ferraz and Neves identified prematurity as the main responsible cause for the low birth weight of the newborns studied.²⁶

This study presented some limitations throughout its execution, and one of the main ones resided in the adoption of a retrospective design with the use of indirect data, collected in medical records, since in this research design the data comes from information registered or not by others, a fact that does not guarantee the sufficiency of data for analysis.

Another limitation was the fact that late prematurity is still a subject rarely explored in Brazilian research, which made it difficult to compare the data with other studies, for a more in-depth discussion of the results.

CONCLUSION

Regarding the characterization of the women in this study, it is worth noting the attendance in the public health network, study time of less than eight years, most with companion/partner and presence of gestational intercurrents.

It was concluded that the rate of births of late preterm infants was equivalent to the populations of studies presented in the international literature. The majority of mothers of late preterm infants in the study had a mean age of 27.31 years. Were white, had more than eight years of full education, had a companion and were from Porto Alegre.

The main reason for the hospitalization of the mothers of late premature infants, during pregnancy, was related to premature rupture of amniotic membranes, preterm labor and conditions related to hypertension during pregnancy. The intercurrents identified as most frequent during the pregnancies studied were related to hypertensive diseases and urinary tract infections. Prenatal care coverage was high, although most did not have a referral register for high-risk care services. More than half of the births were cesarean. Half of the newborns presented low birth weight.

The most frequent maternal complications in late prematurity can be prevented or minimized. There is a need to qualify the care provided to pregnant women in addition to quantifying the frequency of prenatal visits. The pregnant women should be attended considering the different maternal intercurrents in the different age groups.

The results indicate that, although there are health programs aimed at prenatal care, such as PHPN and the Stork Network, prenatal care received by the mothers of these late preterm infants was not able to prevent their early birth.

There is a need for prenatal care providers, usually doctors and nurses, to provide individualized care and be alert to differences in risk situations at each stage of a woman's reproductive life. Prenatal care is still deficient in the detection of risk factors for prematurity that could be prevented or prevented.

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