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Profile of high-risk pregnant women hospitalized in a maternity hospital: a descriptive study

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ABSTRACT

Aim: to describe the profile of high-risk pregnant women attending the HUAP maternity hospital. **Method:** descriptive, retrospective and documentary research, with a quantitative approach, performed at a hospital in Niterói/RJ. Data were collected in 2013, through 148 medical records of high-risk pregnant women admitted to the hospital, from July 1, 2011 to June 30, 2012, and treated by descriptive statistics. **Results:** the majority of the pregnant women were young (up to 30 years old), with a companion and resided in the metropolitan region II/RJ. Half of them had one or two living children; 59.5% were multigravida; 79.1% had never aborted; and, among those who showed previous delivery (n=93), 64.5% had submitted to cesarean section. Regarding prenatal care, 93.3% presented attendance to the appointments. Most of the pregnant women went to the hospital through their own choice (42.6%) as they presented symptoms of general practice. Fifty-nine cases were identified 59 causes for hospitalization, with higher occurrence due to premature amniorrexis and arterial hypertension. **Conclusion:** the presented results can trigger proposals of protocols of attendance and monitoring of this clientele.

Descriptors: Women's Health; Pregnancy, High-Risk; Hospitals.

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INTRODUCTION

Gestation is a physiological phenomenon and, therefore, for most women, its evolution occurs without intercurrences. However, there is a proportion that falls into the category of high-risk gestation, either because they are a carrier or because they develop some disease or complications during pregnancy, which causes risk to the pregnant women and to the fetus[1]. In these cases, during the prenatal period, the woman is classified as a high-risk pregnant woman and referred to a reference service for specialized gestational follow-up[2].

High-risk pregnancies increase the chances of maternal mortality, considered a major public health problem across the world, especially in developing countries. In the case of Brazil, the death rate is four times higher than the acceptable rate given by the World Health Organization (WHO): 20 deaths per 100,000 women[3].

Considering this scenario, and the fact that the main causes of maternal mortality are preventable, the Ministry of Health introduced standards to assist high-risk pregnant women. The aim was to help identify risk factors early and support decision-making regarding diagnostic procedures, treatment and the follow-up of cases classified as such[1].

At the University Hospital Antônio Pedro (HUAP), the scenario of this study, which is a reference for high-risk pregnant women in the Metropolitan II region of the state of Rio de Janeiro, health practices are still out of step with the current assumptions of attention to high-risk pregnant women proposed by the Ministry of Health[1].

In this sense, studying the profile of pregnant women at HUAP, and the causes that determine the aggravation of their health condition, is essential for the formulation of management and planning strategies aimed at reducing maternal morbimortality and assisting the clinical and managerial practice of health professionals.

Therefore, the objective is to: (i) describe the profile of high-risk pregnant women attending the maternity unit of HUAP, in order to propose systematized nursing actions.

METHOD

A documentary, descriptive and retrospective research, with a quantitative approach, was performed at the HUAP Maternity hospital, located in the city of Niterói, RJ. This sector currently has 21 beds for hospitalization, however, only six of them are intended for high-risk pregnant women. The structure of care assures risk classification for immediate or mediate attention, starting with medical care, which requires emergency or urgent nursing actions to minimize obstetric complications, followed, if necessary, by the hospitalization of the pregnant woman. However, because the profile of the pregnant women was not known, the nursing actions were unsystematic and slow, besides being dependent on professional experiences.

Data were collected in the second half of 2013, through the records of pregnant women hospitalized at HUAP, from July 1st, 2011 to June 30rd, 2012. Initially, 757 records were retrieved regarding the hospitalization of pregnant women through the hospital's System of Hospitalization Management - MV2000, for which intentional sampling was performed, including in the survey only those related to pregnant women hospitalized for diseases indicative of high-risk pregnancies, according to the International Statistical Classification of Diseases and Related Health Problems (ICD 10), which totaled 298. These were stratified by type of pathology, which corresponded to 33 different items of ICD 10, and

a new selection was made by a simple random sampling using a lottery.

From this stage, 198 medical records were drawn. However, 50 were excluded because they were at the disposal of the Ambulatory Service and/or other services, held by other professionals, or because they were erroneously separated by the Medical Documentation Service, factors that led to the reduction of the sample to 148 medical records (n=148).

Independent variables of interest for this research were those related to the characterization of pregnant women: age, neighborhood of residence, naturalness, schooling, employment status, number of living children, number of children dead, number of pregnancies and parities. And, as dependent variables, those related to the pathologies, the time and reason for hospitalization were also taken.

Data were analyzed by descriptive statistics, the results of which are presented in tables.

The project was submitted to the Ethics Committee of HUAP and approved by Opinion no. 349566, which was also allowed to use the name of the institution and study scenario.

RESULTS

The majority of pregnant women (n = 66; 44.5%) were in the age range of 21 to 30 years at the time of hospitalization at HUAP, during the study period. Those aged between 31 and 40, and between 14 and 20, comprised 42 (28.4%) and 34 (23.0%) of the total number, respectively. Regarding educational level, in 50.7% of the medical records this information was not recorded; 23.6% reported having completed high school, and 12.8%, incomplete primary education.

Of the total of 148 pregnant women, 28.4% had an employment relationship, and in 52.7% this information was not recorded in the medical records. The main activities performed by the pregnant women were housewife (11.5%), student (4.7%) and salesperson (4.0%).

A total of 52.7% of the pregnant women said they had a companion, although 43.3% of the records on this aspect are not registered; 55.4% of the pregnant women reported living with relatives, but there was no information on this aspect for 44.6% of the women. Regarding the place of residence, the pregnant women were mostly from municipalities in the Metropolitan region II/RJ (n = 129; 87.2%), of which 73 (56.0%) were from Niterói, and 21 (16.2%) from São Gonçalo.

Regarding offspring, 74 (50.0%) had one or two living children in the investigated period; 138 (93.2%) pregnant women reported as having no deceased children Of the 148 women, 53 (35.8%) were primigravidae and 117 (79.1%) had never aborted (Table 1).

Table 1. Characterization of pregnant women regarding the number of children and the obstetric history. Niterói, 2013

Number of children		**N**	**%**
Alive	None	64	43,25
	01 to 02	74	50
	03 or more	8	5,4
	Not registered	2	1,35
Dead	None	138	93,24
	01 to 02	7	4,72
	Not registered	3	2,04
Obstetric history		**N**	**%**
Number of pregnancies	01	53	35,8
	02 to 05	88	59,45
	06 or more	6	4,05
	Not registered	1	0,7
Number of parities	Nulliparous	61	41,2
	01 to 03	82	55,4
	04 to 06	3	2
	07 or more	1	0,7
	Not registered	1	0,7
Number of abortions	None	117	79,05
	01	21	14,18
	02 to 03	8	5,4
	Not registered	2	1,35

Source: research data, 2013

Regarding the type of delivery that had occurred in previous pregnancies, this information was recorded in the analysis of 93 charts, of which 60 (64.5%) reported that the mothers underwent cesarean section; and 33 (35.5%), at normal delivery at least once. Among these women, 10 (70.7%) had a history of vaginal delivery in one pregnancy and a cesarean section in another.

Regarding prenatal care, 93.3% had a frequency of visits, of which 47.1% had seven or more consultations.

The majority of the pregnant women sought HUAP freely (42.6%), and 20.3% were referred by the HUAP outpatient clinic; 58.8% of the women did not present underlying diseases of a diagnosed obstetric origin, but presented general clinical symptoms (Table 2).

Table 2. Characterization of pregnant women regarding the performance of prenatal care, the number of consultations, the origin and the underlying pathologies. Niterói, 2013

Performance of prenatal care	N	%
Did Prenatal	138	93,25
Did not do prenatal	2	0,01
Not registered	8	5,40
N.º of consultations	**N**	**%**
00 to 05	49	33,11
06	14	9,45
07 or more	65	43,92
Not registered	20	13,52
Origin	**N**	**%**
Free demand	63	42,56
HUAP outpatient clinic	30	20,27
Basic Health Unit	17	11,49
Other health units	37	25,00
Not registered	1	0,70
Clinical conditions	**N**	**%**
Hypertensive gestation syndrome	9	6,08
Urinary tract infection	8	5,40
Cardiac disorders	3	1,35
Others*	87	58,78
Not registered	45	30,40

Source: research data, 2013
**Pain in the lower abdomen, pancreatitis, cough and chest pain, anuria, pyuria, decreased fetal mobility, cephalic pain, scotomas, transvaginal losses, sexually transmitted diseases, hyper and hypogastric pain.*

We identified 59 causes that led to the hospitalization of pregnant women in the HUAP Maternity hospital, including premature amniorrexis (10.8%), unclassified arterial hypertension (10.1%), true labor (6.8%) and Diabetes mellitus (6.1%), as seen in Table 3.

Table 3. Distribution of the frequency of reasons that led to the hospitalization of pregnant women. Niterói, 2013

Reasons for Hospitalization	N	%
Premature amniorrexis	16	10,81
Unclassified hypertension	15	10,13
Labor	10	6,75
Diabetes mellitus	9	6,08
Hypertension classified decompensated	8	5,40
Oligodramnia	8	5,40
Severe pre-eclampsia	4	2,70
Threat of premature birth	4	2,70
Premature rupture of amniotic membranes	4	2,70
Preterm labor	4	2,70
Labor and iterativity	3	2,02
Threat of premature birth and urinary tract infection	3	2,02
Pyelonephritis	3	2,02
Others*	57	38,51
Total	148	100

Source: Research data, 2013
**pain in the lower abdomen, pancreatitis, cough and chest pain, anuria, pyuria, decreased fetal mobility, cephalic pain, scotomas, transvaginal losses, sexually transmitted diseases, hyper and hypogastric pain*

The hospitalization lasted from four to 10 days for 59.5% of the women, and for more than 10 days for 4.7% of the women. The average length of stay was equivalent to five days.

DISCUSSION

Studying the factors related to high-risk pregnancy is essential for the adoption of health practices consistent with this population. Other Brazilian municipalities, when they know the profile of the pregnant woman, point out effec-

tive actions in the management of pathologies resulting from the management process of a reference unit for high obstetric risk, so that the systematization of nursing actions is effective[4].

The data analyzed in this study point to a profile of pregnant young adults, predominantly those aged between 21 and 30 years, but with a significant percentage of women under the age of 20 (23.0%), among them, 19 adolescents. In Brazil, in 2011, more than 560 thousand births were counted, whose mothers were adolescents (up to 19 years), corresponding to 20.0% of the total births in the country [5].

Teenage pregnancy itself is not a risk factor for pregnancy, but the complexity of factors and developments that surround it, especially in the psychosocial context associated with a possible rejection of pregnancy, therefore it is imperative an integrated prenatal care[1].

In 2011, in Brazil, 15% of all maternal deaths were among adolescents, and 17% of abortion-related deaths were among 10 to 19-year-olds. Abortion in adolescence usually occurs later, leading to more health risks and complications[5], besides being associated with fetal prematurity and low birth weight[6].

Concerning the marital situation, 52.7% of the women reported that they had a partner. The participation of the father should be encouraged during prenatal consultations, to prepare the couple for the moment of childbirth, as part of family planning[7], enforcing compliance with the Law of the Companion, which guarantees parturients the right to the presence of a companion during labor, delivery and immediate postpartum[8].

However, the working day usually coincides with the consultation hours, which may lead to low parental participation during the prenatal period[9]. This reality may be representative of the pregnant women of the HUAP, since most of them do not have employment bond, being inferred that the family support becomes the responsibility of the companion.

The data also point to a profile of pregnant women with low schooling, with the highest level of education being the completion of high school, which some studies point to as a vulnerability factor that is associated with poor reproductive health indicators, mortality and severe maternal morbidity[10.11].

It was verified that more than 50% of the pregnant women attending the service were residents of the municipality of Niterói. The maternity unit at HUAP, being a reference point for cases of high-risk pregnancy in the Metropolitan Region II of the state, also receives pregnant women from other municipalities, especially São Gonçalo (16.2%), which has the largest number of inhabitants in the region and, even so, in the hierarchization of health actions at the municipal level, can not be solved, especially in the medium and high complexity service. This fact has an impact on the municipal network of Niterói, which has a greater capacity to offer specialized and hospital services in the region[12].

In terms of the hierarchy of the reference system of the Unified Health System (SUS – from the Portuguese Sistema Único de Saúde), it can be seen that there is a possible failure to follow prenatal care at a basic level, since a high percentage of women sought services freely (42.7%), while only 11.5% followed a referral in high risk cases, from basic care to the hospital level. This data can also be explained by the maintenance of a model still centered in the hospital, either by the population or by the local health system itself.

The fragility of follow-up at the basic level may also justify the absence or incompleteness of follow-up records on the prenatal card of pregnant women, such as a history of underlying pathologies, which fails to provide information that aids in immediate decision-making on the

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arrival of the pregnant to the maternity hospital. Likewise, such fragility may explain the occurrence of 38.5% of cases of hospitalization due to complaints of various symptoms, without flagged obstetric diagnoses.

Unclassified hypertension and premature amniorrexia were the diagnoses that led the pregnant women to increased hospitalization, which may explain the average time of five days of hospitalization, and the absence of parturition in 41.2% of hospitalized women. Hypertension was also identified as one of the main causes of hospitalization of pregnant women, according to a study carried out in a maternity hospital in the south of the country[13].

In another study, the hospitalization of high-risk pregnant women was mainly due to preterm labor and pre-eclampsia/eclampsia[14], characterized by high blood pressure during pregnancy accompanied by proteinuria or other signs and symptoms such as thrombocytopenia and increased liver enzymes[1].

Hypertension, because it is a chronic disease that is closely related to life behaviors, requires periodic clinical care, which is monitored at the basic level and focuses on health education. During pregnancy, however, it entails attendance at all levels of complexity, but with the monitoring of the specialized reference level in order to minimize complications from hypertensive syndrome for the mother and/or fetus[15].

This situation, however, requires the early identification of morbidity at the basic level, which should immediately refer the pregnant woman to the reference unit, at the sign of any reproductive risk factor in prenatal care[1,15].

Quality prenatal care presents itself as an important strategy for the detection and early intervention of risk situations, this being a determinant of maternal health indicators. Regarding this, prenatal care occurred in 93.3% of the cases studied, among which 43.9% participated in seven or more consultations, a number higher than the minimum of six consultations recommended by the Ministry of Health for low risk pregnant women[7]. Regarding high-risk pregnant women, the number of consultations varies according to the clinical situation, the existence or not of the underlying disease, and the progression of the pregnancy.

CONCLUSION

The study made it possible to describe the profile of high risk pregnant women hospitalized at the HUAP maternity hospital, in the understanding that socioeconomic and pathological information have the potential to support the clinical and managerial practice of the unit, since it presents indicators that allow for prior care planning.

A profile of pregnant young women with low levels of schooling, without employment bond and multigesta was identified, factors that increase the vulnerability to the worsening of the health conditions.

The general clinical symptoms, amniorrexis and hypertension were the main reasons for the hospitalizations of the pregnant women, who, for the most part, sought the unit by her own choice.

The limitation of this study rests on the restriction in the determination of the profile of the high-risk pregnancy, since some information regarding the obstetric history was not recorded in most of the medical records, as well as the localized character of the research, which implies the impossibility of extrapolation of data.

Nevertheless, the results presented can trigger proposals for care and follow-up protocols for this clientele, since it is a reference hospital, which is based on the quality of care provided. Among the recommendations, it is suggested to

strengthen the importance of the data recording phase of these pregnant women, since the lack of information was recurrent.

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