



PROFILE OF PATIENTS ADMITTED TO THE OBSTETRIC INTENSIVE CARE UNIT OF A PUBLIC MATERNITY

PERFIL DAS PACIENTES ADMITIDAS NA UNIDADE DE TERAPIA INTENSIVA OBSTÉTRICA DE UMA MATERNIDADE PÚBLICA

EL PERFIL DE LAS PACIENTES INGRESADAS EN LA UNIDAD DE CUIDADOS INTENSIVOS OBSTÉTRICOS DE UNA MATERNIDAD PÚBLICA

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ABSTRACT

Objective: to analyze the sociodemographic and clinical profile of women admitted to the Intensive Care Unit. **Method:** cross-sectional study, with a quantitative approach, performed in a reference public maternity of Teresina-PI, with 139 patients. Data collection was performed by means of a form and the data were analyzed using SPSS 20.0 software. **Results:** most women were admitted in the postpartum (69.8%); aged 21-30 years (49.6%); predominating the brown color (60.4%); from inner cities in the state (47.5%); with family income of one minimum wage (66,95); 38.8% have only incomplete elementary school; 42.2% attended less than six consultations in prenatal care, the predominant disease at admission was GHS (43.9%); 3.6% of patients died. **Conclusion:** the results showed participants were mostly young adults, with a relatively low level of education and family income, and one may relate those data with the low frequency of prenatal consultations that can justify the presence of pre and postpartum complications. **Descriptors:** Intensive Care Units; High-Risk Pregnancy; Epidemiology.

RESUMO

Objetivo: analisar o perfil sociodemográfico e clínico de mulheres admitidas na Unidade de Terapia Intensiva. **Método:** estudo transversal, de abordagem quantitativa, realizado em uma Maternidade pública de referência, de Teresina-PI com 139 pacientes. A coleta de dados foi realizada por meio de um formulário e os dados analisados no software SPSS 20.0. **Resultados:** a maioria das mulheres foi admitida no pós-parto (69,8%); com idade entre 21-30 anos (49,6%); predominando as de cor parda (60,4%); provenientes de cidades do interior do estado (47,5%); com renda familiar de 1 salário mínimo (66,95); 38,8% possuem apenas o ensino fundamental incompleto; 42,2 % realizaram menos de 6 consultas no pré-natal, a Doença predominante na admissão foram as SHEG (43,9%); 3,6 % das pacientes foram à óbito. **Conclusão:** os resultados mostraram participantes em sua maioria adultas jovens, com o nível de escolaridade e renda familiar relativamente baixo podendo-se relacionar esses dados com a baixa frequência de consultas de pré-natal que pode justificar a presença de complicações pré e pós parto. **Descritores:** Unidades de Terapia Intensiva; Gravidez De Alto Risco; Epidemiologia.

RESUMEN

Objetivo: analizar el perfil sociodemográfico y clínico de las mujeres ingresadas en la Unidad de Cuidados Intensivos. **Método:** estudio transversal con un enfoque cuantitativo, realizado en una maternidad pública de referencia de Teresina-PI, con 139 pacientes. La recolección de datos se realizó por medio de un formulario y los datos fueron analizados utilizando el software SPSS 20.0. **Resultados:** la mayoría de las mujeres fueron admitidas en el post-parto (69,8%); con edad 21-30 años (49,6%); predominando las mulatas (60,4%); de ciudades en el interior del estado (47,5%); con ingresos familiares de un salario mínimo (66,95); 38,8% sólo han terminado la escuela primaria; 42.2% realizaron menos de seis visitas de atención prenatal, la enfermedad predominante en la admisión fue SHG (43,9%); 3,6% de los pacientes murieron. **Conclusión:** los resultados mostraron que las participantes en su mayoría eran adultas jóvenes, con el nivel de educación e ingresos familiares relativamente bajos, pudiéndose relacionar estos datos con la baja frecuencia de las consultas prenatales que pueden justificar la presencia de complicaciones en el pre y post-parto. **Descriptor:** Unidades de Cuidados Intensivos; Embarazo de Alto Riesgo; Epidemiología.

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INTRODUCTION

The Intensive Care Unit (ICU) is one of the most multi-professional work environments that exist in the areas of health. The ICU is a unique environment that aims at maintaining life and health recovery of people who need more careful monitoring of their disease state. Communication between the staff and the constant updating of professionals is very important for the smooth progress of work. As a challenge, every professional in several areas should establish the limits and importance of their work, but with the goal of development and universal knowledge to offer a better service to the client.¹

Professionals of the ICU health team play an important role in the hospitalization of pregnant and puerperal women in that treatment unit, as they are supporting that process and should put their knowledge at the service of women's well-being, recognizing the critical moments when they need to intervene to ensure the patient's health, and may minimize pain, stand beside, give comfort, explain, guide, help in the birth process.²

Although pregnancy is a physiological event for most women, it can also present a high risk for both the mother as the fetus, occurring disorders that interfere with normal fetal development, delivery and postpartum. Every pregnancy carries with it some risk to the mother or the fetus and the chance of a woman, during the pregnancy-puerperal cycle, being admitted to an ICU is much greater than the one of a young woman, who is not pregnant. One estimates that 0.1% to 1.9% of pregnant women develop complications requiring hospitalization in that intensive care unit.³

There are several indications for hospitalization of pregnant patients in ICU, and they can be obstetric or non-obstetric causes. Most women admitted to ICU have an obstetric diagnosis (50% to 80%) as the cause of hospitalization.⁴ The main associated causes are: pregnancy-induced hypertension (PIH), the amniotic fluid embolism, obstetrical-cause hemorrhage, respiratory failure and sepsis.⁵

Obstetric ICU is a different environment, requiring special care and expertise from professionals, in order to provide information to support strategies and actions on maternal health care and that both medical as nursing teams can meet the patients' needs in their specialties. Such fact justifies the development of this study, which aimed to analyze the sociodemographic and clinical

profile of women admitted to the Intensive Care Unit (ICU) of a public maternity.

METHOD

This article was prepared from the monograph << Profile of patients admitted in obstetric intensive care unit of a public maternity >> presented in the Nursing Course, Center of Health Sciences, State University of Piauí/UESPI. Teresina/PI, Brazil. 2014.

Cross-sectional and prospective study, with observational and descriptive nature, based on a quantitative approach. The descriptive research describes and explains the phenomena studied in order to discover the existence of associations between the variables.⁶ The cross-sectional research inserts as a subject all the people who make up a population at the time of the survey, or a representative sample of that population.⁷

The study population consisted of women at any stage of the pregnancy-puerperal cycle admitted, in the period from February to April 2014, to the obstetric intensive care unit of a reference public maternity of Piauí, which currently has 248 maternity beds, 167 neonatal beds and ten obstetric intensive care beds, being considered the largest in the state. In the survey period, 161 women were admitted to the ICU, excluding patients with clinical complications at the time of data collection; or with physical, cognitive and mental limitations that prevented participation in the study or who refused to participate in the study; we had a non-probabilistic sample of 139 participants.

First, the Research Ethics Committee of the studied maternity assessed the research project. After the approval of the project by the institution, and in possession of the Consent Letter and the Custodian Agreement, the research was conveyed and registered in the Brazil Platform of the National System of Ethics and Research (SISNEP), approved by the Research Ethics Committee of the Association of Piauí of Combat against Cancer/Hospital São Marcos, with protocol number 528321 and CAAE: 24570013.8.0000.5584, we started data collection.

The instrument used for data collection was a form specially designed for the study based on information contained in the medical records of the patients, divided into two themes: sociodemographic profile and clinical-obstetric profile.

Data collection took place from Monday to Saturday, from February to April 2014, and took place in two ways: analysis of medical records and interview of the patient. First, we informed the patients about the research and

invited to participate in the study by signing the Informed Consent Form. Next, we followed with the analysis of medical records, having the Commitment Term of Data Use. At last, we collected with the patients the information not included in the chart for lack of registration by the responsible professionals. Data were tabulated using SPSS (Statistical Package for the Social Sciences), version 20.0, presented in tables.

The study met all the provisions of Resolution 466, of December 12, 2012, of the

National Health Council, which regulates research involving human subjects.⁸

RESULTS

During the study period, there were 3517 admissions in the maternity ward and 161 admissions to the ICU, corresponding to 4% of total admissions. Of the 139 patients studied, 69.8% were admitted in the postpartum and 30.2%, during pregnancy (Table 1).

Table 1. Distribution of the patients according to the stage of the pregnancy-puerperal cycle at the admission. Teresina- PI, 2014.

	n°	%
During pregnancy	42	30.2
Postpartum	97	69.8

Source: Public Maternity in Teresina- PI.

Analyzing the socioeconomic characteristics of the patients, there was a predominance of the age group 21-30 years old, corresponding to 49.6%. As for the race, most of the patients self-reported as brown (60.4%), followed by black (23.0%). With regard to marital status, 40.4% of women are married, followed by

33.8% who are in a stable union; 66.9% have a family income up to one minimum wage, and 38.8% have only incomplete elementary school, followed by 25.2% of participants who have completed high school. Most admissions (47.5%) are from inner cities of the state (Table 2).

Table 2. Sociodemographic characteristics of the patients admitted to the obstetric ICU. Teresina- PI, 2014.

Variables	No.	%
Age		
Up to 20	32	23.0
21-30	69	49.6
Over 30	38	27.3
Race		
White	10	7.2
Black	32	23.0
Yellow	13	9.4
Brown	84	60.4
Marital Status		
Single	32	23.0
Married	56	40.4
Divorced	2	1.4
Separated	2	1.4
Stable Union	47	33.8
Family Income		
Up to 1 minimum wage	93	66.9
1-3 minimum wages	37	26.6
3-5 minimum wages	8	5.7
Over 5 minimum wages	1	0.8
Educational Attainment		
Incomplete Elementary School	54	38.8
Complete Elementary School	27	19.4
Incomplete High School	14	10.1
Complete High School	35	25.2
Incomplete College	6	4.3
Complete College	3	2.2
Origin		
Teresina	52	37.4
Other cities in Piauí	66	47.5
Cities of other states	21	15.1

Source: Public Maternity in Teresina- PI

Regarding obstetric variables at the time of admission, 40.3% of patients were

primiparous, and, therefore, the majority was (59.7%) multiparous. The number of cesarean

deliveries corresponded to 85.6%, 65.5% had no personal history of patients, followed by 17.3% who had urinary tract infection; 42.4% of women did not attend the six prenatal

consultations recommended by the Ministry of Health, of which 12.9% did not even start the monitoring of pregnancy (Table 3).

Table 3. Obstetrical characteristics of patients admitted to the obstetric ICU. Teresina- PI, 2014.

Variables	No.	%
Number of Pregnancies		
1	56	40.3
2	37	26.6
3	18	13.0
4 or more	28	20.1
Delivery Type		
Cesarean	83	85.6
Vaginal	14	14.4
Personal History		
Diabetes	2	0.7
Arterial hypertension	17	9.4
Cardiopathies	5	1.4
Urinary infection	31	17.3
Have no background	91	65.5
Prenatal Control		
< 6 consultations	59	42.4
≥ 6 consultations	49	35.3
Unattended	18	12.9
Uninformed	13	9.4

Source: Public Maternity in Teresina- PI

The disease that most caused ICU admission were Gestational Hemorrhagic Syndromes (GHS) (43.9%), either alone or associated with other complications such as acute renal failure, jaundice, oliguria, deep vein thrombosis, uterine inversion, isthmus-cervical incompetence, sickle cell anemia,

urinary tract infection, acute anemia, uterine tumors, morbid obesity, post-operative period by hysterectomy, infection of the uterine tract, HCVA, PCR, encephalopathy and anencephalic fetus (8.6%), followed by bleeding, responsible for 10.8% of hospitalizations (Table 4).

Table 4. Main cause of hospitalization in the obstetric ICU. Teresina- PI, 2014.

Disease	No.	%
Sepsis	7	5
Hemorrhages	15	10.8
Cardiovascular Complications	2	1.4
Respiratory Complications	2	1.4
GHS	61	43.9
Other Complications	12	8.6
Respiratory Comp. + GHS	1	0.7
Respiratory Comp. + Cardiovascular Comp.	2	1.4
Cardiovascular Comp. + Other Comp.	1	0.7
GHS + Other Complications	12	8.6
Complications	10	7.2
Hemorrhage + GHS	3	2.2
Hemorrhage + Other Complications	1	0.7
Sepsis + Respiratory Comp.	1	0.7
Hemorrhages + GHS + Other Comp.		
Sepsis + Resp. Comp. + Cardio. Comp.	1	0.7
+ GHS + Other Comp.	2	1.4
Sepsis + Hemorrhages + Other Comp.	1	0.7
Sepsis + GHS	1	0.7
Hemorrhage + Respiratory Comp.	2	1.4
Sepsis + Hemorrhage	1	0.7
Sepsis + Other Comp.	1	0.7
Sepsis + Hemorrhage + GHS		

Source: Public Maternity in Teresina-PI

In the studied period, most of the patients had a good evolution and were discharged to

continue the treatment in the infirmaries (94.2%) and 3.6% of patients died (Table 5).

Table 5. Outcome of the case. Teresina- PI, 2014.

Variable	No.	%
Discharge to infirmary	131	94.2
Death	5	3.6
Transferred	3	2.2

Fonte: Maternidade Pública em Teresina-PI

DISCUSSION

The patients admitted to the maternal ICU characterize mostly by young-adult patients, a result similar to the one found in a study in Paraná in 2009, in which 63.5% of patients admitted to the obstetric ICU were between 20 and 34 years old.⁹

The predominant race/color of the population was brown, similar to the one found in a study conducted in 2011 at the Institute of Integrative Medicine Prof. Fernando Figueira (IMIP) in Recife, in which 68.9% of patients were brown.⁴ Such fact goes against the 2010 IBGE census where the research on color or race revealed that more than half of the population self-declared brown or black, and, in 21 states, that percentage was above the national average (50.7%). Only in Santa Catarina (84.0%), Rio Grande do Sul (83.2%), Paraná (70.3%) and São Paulo (63.9%) more than half of the population self-declared white.¹⁰

Regarding marital status, most of the patients are married, followed by stable union, corroborating a study conducted in Recife in 2011, in which 79.9% of women were married or had a stable union⁴, different from the result found in a study conducted in Paraná in 2009, in which 68.4% of the women studied had no partner.⁹

As for the family income, the majority has only a minimum wage or less, a result that can be explained by the fact that the majority of respondents reported not exercising any gainful activity, with only the partner's income or with money from social programs offered by the government. A study conducted in nine hospitals in the city of Maceió-AL also found such results, in which a large proportion of women (60.3%) had no paid work, reporting being housewives, living with income equivalent to one or two minimum wages.¹¹ This result may also relate to the low level of education, as most patients have only incomplete elementary school, as also found by the study in Recife, published in 2006, in which 52.3% of patients had less than seven years of education¹² and, as we know, the low level of education hampers the acceptance in the labor market.

As for the origin, most admitted patients are from inner cities of the state, an expected result, since the Maternity where we

conducted the research is a reference service unit and has the only public obstetric ICU of the state. Similar to the results presented by a study conducted in 2008 in Pernambuco, in which 60% of women come from the inner state.¹³

Most patients were hospitalized in the postpartum (69.8%), which is consistent with the literature, which shows higher frequency of admissions to intensive care in the puerperium¹⁴. As for the parity, 40.3% of patients were primiparous and 26.6% were in their second pregnancy, similar to the average rate of children of Brazilian women, stabilized at 1.5 children/woman, which approaches Brazil to developed countries with regard to the decrease in the birth rate, according to estimates by the IBGE (Brazilian Institute of Geography and Statistics), in 2008¹⁵. A research conducted in Recife to assess prenatal care provided to pregnant women users of the Unified Health System (SUS) found similar results, in which 244 (39.9%) of the participants were primiparous.¹⁶

The most frequent type of delivery was cesarean section, performed in 85.6% of cases, a fact that is partly justified by the severity of complications, imposing, in general, the termination of pregnancy at an early stage, with unfavorable cervical conditions and/or impaired fetal-maternal well-being. In a study conducted in Turkey, published in 2010, vaginal delivery occurred in 10% of patients, while the cesarean section occurred in 90% of cases.¹⁷

Investigating the personal history, we found that 65.5% of women had no history of previous illness, a surprising data, since personal history is considered a risk factor for many complications; 17.3% had urinary tract infection, most common urinary problem during gestation.

With respect to prenatal care, 42.4% of the sample attended less than six consultations during pregnancy, whereas the Ministry of Health recommends a minimum of six consultations during pregnancy. This is a worrying fact that may explain the high incidence of complications in pregnancy and childbirth, since an quality prenatal properly accomplished aims at early detection of factors that can trigger complications, so there may be a timely reference to high-risk prenatal. In a research conducted in

Fortaleza, in mothers with the HELLP syndrome, 18.41% of women had attended four-six consultations, while 12% had not attended any. In our study, 12.9% of women did not attend any prenatal consultation, 9.4% could not tell, and the data was not in the medical record of the patient.

In a study published in 2006 analyzing the profile of admissions to the obstetric ICU of IMIP, in Recife-PE, the three leading causes of hospitalization were hypertension (87%), hemorrhage (4.9%) and infection in the pregnancy-puerperal cycle (2.1%).¹² According to the data analyzed in Table 4, the main causes of hospitalization in the ICU were the Pregnancy Induced Hypertension (43.9%) and hemorrhages (10.8%).

CONCLUSION

Given the analyzed results, it was possible to observe the relationship between the sociodemographic profile and clinical-obstetrical profile. The clientele's characteristics were participants who were mostly young adults, with relatively low level of education and family income. The study triggered a concern related to the deficiency of prenatal care, especially in the early identification of possible complications. Considering the percentage and number of prenatal consultations performed under six consultations, the clinical manifestations and complications become more serious and more common.

A quality care is essential for pregnant women during prenatal care, as well as a skilled multidisciplinary team, especially the professional nurse, as one of those responsible for the classification of patients and identification of illness risks. Another important procedure is the early referral to the reference medical-hospital service, which would greatly enhance that profile regarding the clinical complications.

GHS appear in most cases, from the simplest forms to the most severe ones, manifesting during and after pregnancy and being responsible for many complications, which corroborates the literature, stating that preeclampsia is one of the most important causes for hospitalization in obstetric intensive care units. Hemorrhagic syndromes also stood out as one of the main diagnosis for ICU admission.

It is important to highlight the difficulties encountered in this study, the lack of registration of data on medical records and even wrong and different information recorded in the various forms used at the institution. Regarding the amount of such

studies, there were few publications drawing the profile of obstetric ICU.

One suggested the update of the instruments used in the patient's admission to the maternity and that professionals filled them with more rigor. It is noteworthy the need for ongoing education of professionals responsible for completing the admissions of patients and awareness of the importance of that service. It is also necessary to keep a copy of the prenatal card and of the receptiveness card with the risk rating of the pregnant woman in the medical records of all patients, since it includes important information about the pregnancy and the socioeconomic situation.

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