# CHARACTERISTICS OF PREGNANT WOMEN CARED FOR IN A VISIT TO THE PRENATAL OUPATIENT NURSING SERVICE: COMPARISON OF FOUR DECADES<sup>a</sup>

Ana Gabriela B. MARQUES<sup>b</sup>, Suzana A. ZÁCHIA<sup>c</sup>, Maria Luiza S. SCHMIDT<sup>d</sup>, Elizeth HELDT<sup>e</sup>

#### **ABSTRACT**

The aim of the work was to identify characteristics of pregnant women cared for by an obstetric nurse in a visit to the prenatal outpatient nursing service and compare these over the period from 1972 to 2009. Sociodemographic and obstetric data were collected from the forms completed by the pregnant patients during their visit to the nursing service. A total of 1245 forms were analyzed, 208 (16.7%) being from the 1970s, 323 (25.9%) from the 1980s, 329 (26.4%) from the 1990s, and 385 (30.0%) from year 2000. A significant difference was found between the previous decades and year 2000 in relation to the greater number of high-risk pregnancies, number of nursing consultations and obstetric ultrasounds performed during the prenatal exam. The characteristics of pregnant women were observed to change over time, as well as the care provided by the obstetric nurse during visits to the outpatient nursing service, remaining associated with the demands of patients and legal resolutions.

**Descriptors:** Prenatal. Public policies. Obstetric nursing.

## **RESUMO**

O objetivo do trabalho foi identificar as características das gestantes atendidas em consulta de enfermagem no pré-natal realizado por enfermeira obstétrica em consulta ambulatorial, e compará-las, no período de 1972 a 2009. Os dados sociodemográficos e obstétricos foram coletados das fichas de gestantes, preenchidas durante a consulta de enfermagem. Um total de 1245 fichas foi analisado, sendo 208 (16,7%) da década de 1970, 323 (25,9%) de 1980, 329 (26,4%) de 1990 e 385 (30,0%) de 2000. Encontrou-se diferença significativa entre as décadas anteriores com a de 2000, em relação ao número maior de: gestações de alto risco, número de consultas de enfermagem e de ecografias realizadas durante o pré-natal. Observa-se que as características das gestantes modificaram-se, ao longo do tempo, bem como o atendimento realizado por enfermeira obstétrica em consulta de enfermagem ambulatorial, mantendo-se vinculado às demandas das usuárias e às determinações legais.

Descritores: Cuidado pré-natal. Políticas públicas. Enfermagem obstétrica.

Título: Características de gestantes atendidas em consulta de enfermagem ambulatorial de pré-natal: comparação de quatro décadas.

## RESUMEN

El objetivo del trabajo fue identificar las características de las gestantes atendidas en consulta de enfermería prenatal, realizado por enfermera obstétrica en consulta de ambulatorio, y compararlas en el período de 1972 a 2009. Los datos sociodemográficos y obstétricos se recolectaron de las fichas de gestantes rellenadas durante la consulta de enfermería. Un total de 1245 fichas fueron analizadas, 208 (16,7%) en la década de 1970, 323 (25,9%) en la década de de 1980, 329 (26,4%) en la década de 1990 y 385 (30,0%) en la década del 2000. Se encontró diferencia significativa entre las décadas anteriores con la de 2000 con relación al número mayor de: gestaciones de alto riesgo, número de consultas de enfermería y de ecografías realizadas durante el prenatal. Se observa que las características de las gestantes se modificaron a lo largo del tiempo, así como la atención realizada por enfermería obstétrica en consulta de enfermería de ambulatorio, manteniéndose vinculado a las demandas de las usuarias y a las determinaciones legales.

**Descriptores:** Atención prenatal. Políticas públicas. Enfermería obstétrica.

Título: Características de las gestantes atendidas en consulta de enfermería en ambulatorio de prenatal: comparación de cuatro décadas.

a Study developed by the Research Group in Nursing and Outpatient Care (GPEAMAB), affiliated to the Directory of Research Groups of Brazil - CNPq.

b Degree in Nursing from Nursing School of the Federal University of Rio Grande do Sul (UFRGS), Porto Alegre, Rio Grande do Sul (RS), Brazil. c Nurse of the Public Health Nursing Service (PHNS) at the Hospital de Clínicas de Porto Alegre, Master's degree in Medical Sciences, University of Medicine (FAMED), UFRGS, Porto Alegre, RS, Brazil.

d Nurse of PHNS – HCPA, Master's degree in Nursing, EENF/UFRGS, Porto Alegre, RS, Brazil.

e Doctor in Psychiatry, Professor at EENF/UFRGS, Graduate Program in Nursing, EENF/UFRGS, Graduate Program in Medical Sciences: Psychiatry at FAMED/UFRGS, Porto Alegre, Rio Grande do Sul, Brazil.

## **INTRODUCTION**

For four decades, prenatal care has been offered by obstetric nurses through nursing consultation in the Public Health Nursing Service (PHNS) at the outpatient clinic of the Hospital de Clinicas of Porto Alegre (HCPA)<sup>(1)</sup>.

Since 1972, based on the standards established by the Ministry of Health (MH), nursing consultation has been structured to maintain the integrity of maternal and fetal health conditions<sup>(1)</sup>. Nursing consultations has since been recorded on medical records and the obstetric data have been recorded on the medical card of the pregnant woman to ensure that the information on the evolution of the pregnancy is available to the different professionals attending to the pregnant woman. Obstetric records were developed to provide quick access to the main data of the pregnant woman that are filled out during the first nursing consultation of the pregnant woman. The use of these records has remained over time to speed up decision-making during consultations. In the subsequent visits, the data are updated until completion of a final record with information on the delivery and the newborn<sup>(2)</sup>.

In the course of four decades, significant changes in public health policies occurred concerning women's health. In the 1970s, care focused on the reproductive function, which was translated into care focused on the woman as a mother. In 1982, the WHO reinforced the need for providing assistance to pregnant women, considering them as a priority group in public policies. In 1983, the Comprehensive Healthcare Program for Women (CHCPW) was developed incorporating a new focus on public policies centered on the concept of comprehensive health care with an emphasis on educational practices<sup>(3)</sup>.

During the XI National Health Conference held in 2000, a document was developed that establishes: universal access of pregnant women to quality prenatal care services, effective implementation of maternal mortality committees in all states and municipalities, special care adequate to pregnancies; training of managers and health professionals as a precondition for improving the women's health care. That same year, the Prenatal and Birth Humanization Program was developed with the purpose of reducing the high rates of

maternal and perinatal mortality, adopting measures to guarantee access, coverage and quality of health monitoring, as well as assistance to childbirth, postpartum and newborn, and other actions<sup>(4)</sup>. With these measures, the MH has endeavored to encourage the development of practices that go beyond the biological dimensions that reflect on prenatal care<sup>(5)</sup>.

The methodology of nursing consultation changed during this period. There have been changes in the process of clinical reasoning, according to the Systematization of Nursing Care (SNC)<sup>(6-7)</sup>, in the record of information, which is currently recorded on online medical records, and especially the quality of care considering humanization policies<sup>(5)</sup>.

This aim of the study was to identify the characteristics of pregnant women attending nursing consultation in prenatal outpatient care carried out by obstetric nurses over the course of four decades. This historical review is relevant to contribute to care and develop new programs, allowing a reflection on the current methodology of consultations and the possible changes in the health care qualification.

## **METHODS**

The study sample consisted of information obtained from obstetric records of pregnant women attended by nurses in the Women's Healthcare Program at PHNS at the HCPA from 1972 to 2009. The sociodemographic data contained in the records were as follows: age, education, marital status, occupation and origin. Among the obstetric information, the following were found: the number of nursing consultations and examinations, the type of pregnancy, previous pregnancies and type of delivery. More than 4,000 records were divided into decades and randomly drawn. Variance was maximized and the calculation of the sample size per decade was of 200 medical records to make estimation possible throughout the decades. The records with illegible data were excluded and replaced by new randomly selected ones within the same decade. The records that contained incomplete data were part of the sample because they contained relevant data for comparison with the records of the nursing consultations throughout this period.

A statistical analysis was performed using the Statistical Package for Social Sciences (SPSS) version 16.0 and the level of significance adopted was  $\alpha$ =0.05 and 95%IC. The mean and standard deviation of the data were described according to the distribution of continuous variables. For the categorical variables, frequency and percentage were used. To compare the sociodemographic and obstetric characteristics over the decades, the Chi-square test for linear trends and ANOVA or the Kruskal-Wallis test were used. To identify the differences, Dunn's and Tukey's tests were used and adjusted residuals. The evaluation of the normal distribution was performed using the Kolmogorov-Smirnov test and Levene's test for homogeneity of variances.

The study was approved by the Research Ethics Committee of HCPA and the information was collected from the obstetric records in a way that the subjects were not directly identified or indentified by identifiers, in accordance with the commitment term signed by researchers.

#### RESULTS

The total study sample was of 1,245 obstetric records divided into four decades. The sociodemographic characteristics of the pregnant women are shown in Table 1. A significant difference was found when the age of the pregnant women was compared between the decades, with more adolescents under the age of 15 years and women over 35 years in year 2000. Fewer women are at the higher level on the education variable in 2000. Significant differences were also found in the origin of the women referred to obstetric nursing consultation. Until the 1980s, women from Porto Alegre were predominant, while after 2000 the frequency of women from the metropolitan region and interior of the state was higher. The other sociodemographic characteristics showed no significant differences between the decades.

With regard to the obstetric characteristics, a significant increase was found in the number of previous pregnancies and high-risk pregnancies in 2000 in comparison with the other decades (Table 2). The number of nursing consultations for prenatal care increased significantly in 2000, as well as the number of obstetric ultrasounds, deliveries without episiotomy and cesarean sections.

## **DISCUSSION**

The results show that the characteristics of pregnant women attending prenatal nursing consultation have changed over time and these changes may be associated with the policies within each period. Thus, it is relevant to discuss the results of this study through a chronological review of the public health policies in women's health care.

The policies in the 1970s for women's health care changed after the development of the Program for promotion of maternal and child health, which focused on actions towards prenatal care, childbirth and the postpartum period following the criteria of risk and social class. At the time, the priority was to assist the poorest, but care was still incipient and the women were assisted in a narrow, reductionist and fragmented way. Only in the late 1970s did social movements urge the government to develop and implement programs with strategies towards maternal and child care. Soon, the interest in women's health grew in the country, not only within the academia but also through organized social movements<sup>(8)</sup>.

In the 1980s, the Comprehensive Healthcare Program for Women (CHCPW) was implemented and it was pioneer project in the global scenario by proposing comprehensive reproductive healthcare program for women, which was no longer focused on isolated actions for family planning. The setting of health care for women in Brazil began to change during this period with the distribution of technical documents to state governments which would guide "basic actions towards comprehensive health care of women", thus developing systematic care based on scientific knowledge<sup>(3)</sup>. This becomes noticeable in the obstetric records since, at the end of this decade, these records were revised and contained more obstetric data, e.g., gestational age, obstetric ultrasound, blood pressure, uterine height, and abdominal and cervical circumference.

In the 1990s, achievements in the area of women's health progressed. At that time, a movement for reducing unnecessary caesarian sections began. In 1998, ordinance No 2816 was implemented increasing in 160% the number of normal deliveries and it established the payment for labor analgesia to curb the abuse of caesarean sections<sup>(9)</sup>. The number of cesarean sections was significantly higher in comparison with the other decades in

**Table 1** – Comparison of sociodemographic characteristics of pregnant women attending nursing consultations within the four decades.

Characteristics	Total n=1245	Decades				
		1970	1980	1990	2000	_ p
		208(16.7%)	323 (25.9%)	329(26.4%)	385(30.9%)	
Age	25.80±6.29	26.38±4.78	25.67±5.57	25.39±6.80	25.95±7.07	0.365*
≤15 years	31(2.5)		3(0.9)	11(3.4)	$17(4.4)^{+}$	
16 <b>-</b> 35 years	1106(89.6)	195(94.2)+	$296(93.4)^{+}$	288(88.1)	327(85.2)	0.001**
>35 years	98(7.9)	12(5.8)	18(5.7)	28(8.6)	40(10.4)+	
<b>Education level</b>						
Elementary	233(45.2)			89(42.6)	144(47.1)	
High School	221(42.9)			84(40.2)	137(44.8)	0.008**
College	61(11.8)			36(17.2)+	$25(8.2)^{-}$	
Profession						
Housewife	193(34.5)			67(31)	126(36.6)	
Student	82(14.6)			32(14.8)	50(14.5)	0.562**
Housemaid	274(48.9)			112(51.9)	162(47.1)	
Unemployed	11(2)			5(2.3)	6(1.7)	
Origin						
Porto Alegre	837(69.3)	185(88,9) +	234(74.3) +	223(69.7)	195(53.4)	
Grande P. Alegre	329(27.2)	22(10,6)	78(24.8)	93(29.1)	136(37.3) +	<0.001**
Interior towns	42(3.5)	1(0,5)	3(1)-	4(1.3)	34(9.3) +	
Marital status						
With partner	582(93.1)			238(91.9)	344(94)	0.308**
Without partner	43(6.9)			21(8,1)	22(6)	

Note: Continuous variables are shown as mean and standard deviation and they were analyzed using ANOVA\*. Categorical variables are shown as absolute and relative frequency (%) and they were analyzed using the Chi-square test\*\* and adjusted residuals; + indicates the categories in which the values were significantly higher than expected and - indicates those that were lower.

the 1990s and 2000, according to the results of the study. Thus, considering that the HCPA is a referral hospital for high-risk pregnancies<sup>(10)</sup>, the increase in caesarean sections may be related to the greater number of high-risk pregnancies, which also increased significantly in recent decades, consistent with the current policy. In 2000, a study conducted at the Hospital das Clinicas, University of São Paulo, showed that 74.75% of the women studied had pathologies associated with high-risk pregnancies<sup>(11)</sup>.

In 2000, the Prenatal and Birth Humanization Program (PBHP) was instituted by ordinance No 569, which established prenatal care incentives encouraging states and municipalities to

offer close monitoring of pregnant women. The ordinance established the classification of gestational risk, ensuring care for pregnant women in referral hospitals or outpatient clinics and a minimum of six visits during prenatal and at least one postpartum consultation<sup>(4)</sup>. These measures eventually modified the profile of the women treated at HCPA, which was found in the results. It can be seen in the medical records that there was changes in demographic and clinical characteristics and healthcare service in 2000. That is, there was an increase in the age group under 15 and over 35 years, increase in the number of high-risk pregnancies, number of ultrasounds performed, as well as an increase in the number

**Table 2** – Comparison of obstetric characteristics and consultations of pregnant women within the four decades.

	Total n=1245					
Characteristics		1970	1980	1990 329(26.4%)	2000 385(30.9%)	p
		208(16.7%)	323 (25.9%)			
Previous						
Pregnancies	$2.02 \pm 1.35$	$1.82 \pm 1.15^a$	$1.79 \pm 1.07^{a}$	$2.01 \pm 1.47^{a}$	$2.34 \pm 1.48^{b}$	<0.001*
Abortions	$0.30 \pm 0.66$	$0.22 \pm 0.58^{a}$	$0.25 \pm 0 - 59^{ab}$	$0.34 \pm 0.72^{\mathrm{ab}}$	$0.35 \pm 0.70^{b}$	0.038*
Natural birth	$0.56 \pm 1.01$	$0.49 \pm 0.90^{ab}$	$0.43\pm0.82^{a}$	$0.54 \pm 1.08^{ab}$	$0.72 \pm 1.11^{b}$	0.001*
Cesarean section	$0.15 \pm 0.46$	$0.08 \pm 0.30^{a}$	$0.10\pm0.37^{a}$	$0.13 \pm 0.36^a$	$0.27 \pm 0.62^{b}$	<0.001*
Current						
Nursing consultations						
1st in gestational age	22.85±8.36		$19.25 \pm 6.45$	$23.42 \pm 8.37$	$22.51 \pm 8.36$	0.193**
Total per gestation	$1.76 \pm 1.02$	$2.63 \pm 1.52^a$	$3.11 \pm 1.59^{b}$	$3.23\pm2.09^{b}$	$4.04\pm2.29^{c}$	<0.001**
High-risk pregnancies	450(36.1)	$43(20.7)^{a}$	100(31) <sup>b</sup>	104(31.6) <sup>b</sup>	$203(52.7)^{c}$	<0.001***
Total of ultrasounds/ gestation	3.35±2.01		$0.23\pm0.46^{a}$	$0.89\pm0.86^{b}$	2.02±1.14 <sup>c</sup>	<0.001**
Types of delivery						
Without episiotomy	107(16.3)	1(3.8)	38(16.1)	3(10.5)	$45(25.7)^{+}$	
With episiotomy	308(46.9)	20(76.9)+	118(50)	111(50.5)	59(33.7) <sup>-</sup>	<0.001*
Use of forceps	44(6.7)		20(8.5)	19(8.6)	5(2.9)	
Cesarean section	192(29.2)	5(19.2)	$56(23.7)^{-}$	65(29.5)	$66(37.7)^{+}$	

Note: Continuous variables are shown as mean and standard deviation and they were analyzed using Kruskal-Wallis test and ANOVA\*\*. Means with different letters were statistically significant in Dunn's test and Tukey's test (p < 0.05). Categorical variables are shown as absolute and relative frequency (%) and they were analyzed using the Chi-square test\*\*\* and adjusted residuals; + indicates the categories in which the values were significantly higher than expected and - indicates those that were lower.

of pregnant women coming from the interior of the state and metropolitan area. Furthermore, the increase related to obstetric ultrasounds has been found in several studies in recent years. In Canada, for example, a substantial increase occurred in the use of ultrasound in prenatal care in the 1990s<sup>(12)</sup>. In a university hospital of Rio Grande (RS), 99.1% of the women had attended at least one ultrasound examination during the prenatal period with an average of 2.3 exams per patient<sup>(13)</sup>.

The HCPA is a referral hospital for high-risk pregnancies<sup>(10)</sup> and it does not follow the criterion of territoriality principles established by the National Health System. Therefore, the principle of hierarchy is reaffirmed by the differentiation of more complex demands referred to tertiary hospitals.

In 2004, a proposal that prioritizes health promotion was established through the Comprehensive National Healthcare Policy for Women (CNHCPW). This new policy is based on the evaluation of previous policies seeking to fill in the gaps left in relation to menopause, infertility, assisted reproduction, infectious diseases, chronic diseases, and HIV-positive women. Thus, sexual and reproductive rights of women and the improvement of obstetric care<sup>(4)</sup> is emphasized.

Indeed, the impact of the implementation of laws and public policies for women's health that occurred in the 1980s is noticeable, which was intensified in the 1990s and in 2000. However, changes in clinical practice occurred gradually, confirming that to enforce the law a paradigm shift is required demanding firmness and constancy of managers, but it is a slow process. One problem that influences this process is that the changes advocated by the policies are occurring

primarily in the healthcare system, while the education system still trains professionals within the intervention model, which is now considered inappropriate<sup>(14)</sup>.

The use of medical records containing the main information on gestation described in PHPN was given the name of perinatal record. It is described as an instrument to record the data from each consultation to be used by health professionals of the health unit and it contains the main follow-up data about the pregnant women, delivery, newborn and postpartum<sup>(15)</sup>. Therefore, the use of the obstetric record during consultation facilitates the quick access to key information about the mother, speeding up the consultation even when the scheduled time is different and the identification of problems for decision making. However, a consultation that lasts an average 30 minutes, filling out the same data in different places (pregnant identification card, obstetric and medical record) ends up making the consultation bureaucratic, thus reducing the accuracy of the records.

Thus, considering that this study used secondary data analysis, based on information collected from the obstetric records, caution should be appended to the research conclusion. However, the relevance of the study is a historical review of modality of care recommended to maternal and child health. It must be emphasized that the development and evolution of nursing care occurred in an educational institution, contributing to the training of human resources within a social and political reality.

Finally, it is important to reiterate the need for the proper recording and easy access to the records to ensure the quality of assistance provided during and after the pregnancy, thus ensuring the rights of the pregnant woman.

## **CONCLUSION**

It may be concluded that the characteristics of pregnant women have changed over time as well as healthcare provided by obstetric nurse during outpatient consultation, care that is connected to the demands of the users, healthcare policies for women, and legal requirements.

It must be pointed out that obstetric outpatient care is part of the institutional history of HCPA and it is adapting to the legal requirements and the requirements based on the scientific method and social needs.

## REFERENCES

- 1 Santos BRL, Paskulin LMG, Crosseti MGO. Consulta de Enfermagem: sistematização do cuidado. In: TAS-CA, A.M et al. (org). Cuidado Ambulatorial: consulta de enfermagem e grupos. Rio de Janeiro: EPU. 2006. p. 21-28.
- 2 Rigol JL, Espírito Santo LC. Perfil das gestantes adolescentes atendidas em consulta de enfermagem. Rev Gaúcha Enferm. 2001; 22(2): 122-140.
- Brasil. Política nacional de atenção integral à saúde da mulher: princípios e diretrizes. Brasília: Ministério da Saúde, 2004. [Acesso em 2010 nov 16]. Disponível em: http://conselho.saude.gov.b/politica\_mulher.pdf.
- 4 Brasil. Programa de humanização no pré-natal e nascimento. Brasília: Ministério da Saúde, 2004. [Acesso em 2010 out 27] Disponível em: http://dtr2001.saude.gov.br/editora/produtos/livros/genero/livros.htm.
- 5 Lima MG. Representações sociais das gestantes sobre a gravidez e a consulta de enfermagem no pré-natal. [dissertação]. Brasília: Universidade de Brasília; 2006.
- 6 Mccloskey J, Bulecheck GM. Classificação das Intervenções de Enfermagem (NIC). 4. ed. Porto Alegre: Artmed, 2008.
- 7 North American Nursing Association (org). Diagnósticos de enfermagem da NANDA International: definições e classificação (2009/2011). Porto Alegre: Artmed, 2009.
- 8 Neto ETS, Alves KCG, Zorz M, Lima RCD. Políticas de Saúde Materna no Brasil: os nexos com indicadores de saúde materno-infantil. Saúde Soc. 2008; 17(2):107-19.
- 9 Brasil. Portaria GM/MS n.466, de 14 de junho de 2000. Diário Oficial da União. 2000 jun 30 [acesso em 2011 mar 20]. Disponível em: http://www.anvisa.gov.br/legis/portarias/466\_98.htm.
- 10 Ramos JGL, Costa SM, Stuczynski VJ, Brietzke E. Morte materna em hospital terciário do Rio Grande do Sul - Brasil: um estudo de 20 anos. Rev. Bras. Ginecol. Obstet. 2003; 25(6):431-36.

- 11 Tase TH. Caracterização das mulheres atendidas em um hospital escola referência para gestação de alto risco. [dissertação]. São Paulo: Universidade de São Paulo; 2000.
- 12 John J, David A, Therese A, Sarah D, Andreas Laupacis, Ying Liu, Joel G. Proliferation of prenatal ultrasonography. CMAJ. 2010; 182(2): 143-151.
- 13 Gonçalves CV, Costa JSD, Duarte G, Marcolin AC, Velleca LCL, Garlet G, Bianchi MS, Sakai AF. Avaliação da frequência de realização do exame físico das mamas, dacolpocitologia cervical e da ultrassonografia obsté-

- tricadurante a assistência pré-natal: uma inversão de valores. Rev Assoc Med Bras 2009; 55(3): 290-5.
- 14 Rattner D. Humanização na atenção a nascimentos e partos: ponderações sobre políticas públicas. Interface comun saúde educ. 2009; 13:759-68.
- 15 Brasil. Portaria GM/MS n.569, de 01 de junho de 2000. Institui o Programa de Humanização no Pré-natal e Nascimento [Internet]. Diário Oficial da União. 2000 ago 18 [acesso em 2010 nov 16]. Disponível em: http://dtr2001.saude.gov.br/sas/PORTARIAS/PORT2000/GM/GM-569.htm.

Author's address / Endereço do autor / Dirección del autor

Elizeth Heldt
Escola de Enfermagem - UFRGS, Departamento
de Assistência e Orientação Profissional
Rua São Manoel, 963, sl. 218
90620-110, Porto Alegre, RS
E-mail: eliz.h@globo.com

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