OBJN Online Brazilian Journal of Nursing
ENGLISH
Federal Fluminense University
AURORA DE AFONSO COSTA NURSING SCHOOL
uff
Original Articles

# Prenatal care in the city of quixadá: a descriptive study

**Maria Eudênia Oliveira Barros[1]; Luisa Helena de Oliveira Lima[2]; Eucilene Kássya Barros de Oliveira[3]**

[1]Biodiesel Plant Quixadá
[2] Federal University of Piauí
[3]Federal University of Campina Grande

**ABSTRACT**
**Introduction:** Prenatal care is essential to promote the health/well-being of the mother and the conceptus**. Aim:** The objective was to assess the prenatal care offered in the Basic Health Units in the city of Quixadá. **Methods:** A descriptive study was carried out on 73 women participants. A form was used to collect data. **Results:** Prenatal consultations involve the basic procedures related to pregnancy only. There is a deficiency in respect of health education, as 82.2 percent of the participants said they had never participated in such activity. The main laboratory tests recommended by the Ministry of Health (MH) were ordered for the pregnant women. By analyzing the prenatal cards and forms, it was found that 100 percent were incomplete or outdated. **Conclusion:** The study showed that the prenatal care offered to pregnant women is below the standards set by the MH, which affects the quality of care.
**Keywords**: prenatal care, pregnant women, nursing.

## INTRODUCTION

Prenatal care is essential to prepare for motherhood. It involves a set of clinical and educational procedures that aims to promote the health/well-being of the mother and the conceptus[1]. The Ministry of Health recommends that all women during pregnancy must attend at least six prenatal visits in order to perform routine laboratory tests, which points to the effectiveness of prenatal care in reducing morbidity and mortality rates[2].

Pregnancy should be well monitored through prenatal care, regarding both technical competence and quality of emotional involvement between health professionals and pregnant women. It is important to note that the quality of prenatal care is essential in determining the risk factors involving both mother and child, as well as for customer satisfaction. Adequate prenatal care and its interaction with delivery assistance services is essential to obtain effective results in pregnancy, childbirth and puerperium[3].

Regarding the quality of prenatal care, the main problems indicated by the literature relate to professionals breaching rules and routines, not filling in forms properly and providing care that is inversely related to the needs[4]. Despite the available data indicating a considerable increase in the number of visits per woman in recent years, this increase has not resulted in a considerable impact on the maternal deaths reported[5].

In Ceará, for example, in 2010, the maternal mortality ratio was 76.1 deaths per 100,000 live births, according to data released by the State Department of Health. The main cause of death, accounting for 32.1 percent, was specific hypertensive disorder, which includes mainly eclampsia, preeclampsia and unspecified maternal hypertension. Hemorrhagic ante and postpartum syndromes accounted for 21.4 percent of deaths, followed by puerperal infections (10.7%) and abortion (7.1%)[6]. Overall, and perhaps surprisingly, about 98 percent of the pregnant women in Ceará have access to prenatal care, according to the State Department of Health. This disparity between the existence of satisfactory coverage and the high rate of maternal mortality worries us and justifies our research, which investigated the prenatal care monitored by nurses at the Basic Health Units (UBS) in the city of Quixadá/Ceará, Brazil. The study seeks to describe how

prenatal consultations are developed at the UBS of Quixadá/CE, comparing the service offered in the UBS with that recommended by the Ministry of Health.

## METHODS

This study used a cross-sectional, descriptive approach and covered all the 17 teams of the UBS in the city of Quixadá/CE. The participants that were monitored were 73 pregnant women in prenatal care at the UBS.

To calculate the sample size, we used the formula for cross-sectional studies with a finite population:[7] $n = Z_{\alpha}^2 * P * Q * N / Z_{\alpha}^2 * P * Q + (N-1) e^2$, where: n = sample size; $Z_{\alpha}$ = confidence coefficient; e = absolute sampling error; N = population size; Q = additional percentage (100-P); P = proportion of occurrence of the phenomenon under study.

The parameters considered for confidence coefficient were set at 95 percent (1.96), with a sampling error of 5 percent, and a population of 1033 live births in the city of Quixadá in 2006. The proportion of occurrence of prenatal visits was calculated by dividing the number of live births in 2006 by the total number of fertile women in the city of Quixadá in 2006 (P = 0.054). Thus, we selected 73 women who met the inclusion criterion, that is, they were in prenatal care being monitored by a nurse at the UBS. We excluded women at their first prenatal care visit, since they could not provide all the information needed for the data collection instrument.

The instruments used for data collection were two forms previously used to develop indicators to assess prenatal care[8]. The first form had 47 questions, which sought to collect demographic data and information about the prenatal care provided. The second form had 97 questions, and these were answered in the second stage, which focused on observation of consultations and records made in the prenatal record form and the mother's card. In this case, we used non-participant systematic observation, guided by the record form itself.

Data were collected during the period from February to June 2008. To build the database, we used the program Excel for Windows. Double data entry was used to

minimize errors. Data were statistically analyzed using SPSS, version 17.0. They were organized in tables and analyzed on the basis of absolute frequencies and percentages, as well as measures of central tendency and dispersion. The project was approved by the Ethics Committee in Research of the Federal University of Ceará (protocol # 06/08).

## RESULTS

In the following tables, the frequency distributions related to the quality of prenatal care can be observed, according to the aspects investigated, which are believed to be decisive for high quality assistance.

**Table 1 -** Distribution of pregnant women according to data related to prenatal consultations. Quixadá/CE, 2008. n = 73.

| **Variables** | **f** | **%** |
|---|---|---|
| Seen at all medical appointments | 65 | 89,0 |
| Breast examination performed | 45 | 61,6 |
| Received anti-tetanus serum | 45 | 61,6 |
| Able to indicate double dose | 14 | 19,2 |
| Received instructions | 52 | 71,2 |
| Guidance on which service to seek in case of need | 26 | 35,6 |
| Oriented to take the card to the maternity clinic | 56 | 76,3 |
| Participated in educational activity | 13 | 17,8 |
| Prescription of ferrous sulfate | 54 | 74,0 |
| Prescription of folic acid | 44 | 60,3 |

Table 1 reveals that 71.2 percent of the participants said they received some counseling during prenatal care. A worrying aspect is the fact that only 17.8 percent of the participants took part in educational activities.

Besides the data depicted in Table 1, it is noteworthy that none of the participants (100 percent) knew about the law of companionship, that is, they were not informed that they could have a person of their choice to accompany them during labor. This shows a flaw in the instructions given to pregnant women, who should be informed about their rights as citizens and users of the Unified Health System.

Women should start prenatal care as soon as they suspect that they are pregnant, so as to have more time to develop the activities/procedures recommended and attend more medical appointments. The sample of this study showed a median of three months into pregnancy for the beginning of prenatal care. According to these data, pregnant women are starting prenatal care within the recommended period, but, as previously mentioned, the ideal is that they begin prenatal care as soon as possible. The MH recommends that women should attend at least six prenatal visits, and preferably one in the first trimester of pregnancy, two in the second, and three in the third[9]. The women participants had a median of four visits. This number is owing to the fact that they are still undergoing prenatal care, that is, they have not reached the end of pregnancy yet and thus still have visits to attend.

One of the questionnaire's items used in this study asked the participants to grade (1-10) the nursing care provided. According to the results, the median grade given to the nursing service was 10, which shows the pregnant women's satisfaction, despite some negative aspects identified in the data collected. It was observed that they (pregnant women) felt some difficulty in grading the care service because they tend to give attention only to the emotional aspect of it. There were frequent statements like: "She is very nice, treats people well, has a face ... I give grade ten." They did not value aspects such as waiting time, ordering and interpreting lab tests, health education/orientation, among others.

**Table 2 -** Distribution of pregnant women according to prenatal tests ordered. Quixadá/CE, 2008. n= 73.

| Variables | **F** | **%** |
|---|---|---|
| ABO-Rh | 69 | 94,5 |
| Anti-HIV | 56 | 76,7 |
| VDRL | 69 | 94,5 |
| Indirect coombs | 4 | 5,5 |
| Urinalysis | 67 | 91,8 |
| Pap smear | 3 | 4,1 |
| Fasting glycemia | 71 | 97,3 |
| Hb/Ht | 72 | 98,6 |
| Informed about results | 59 | 80,8 |

From Table 2 it can be seen that the main tests recommended by the MH were ordered for most women, except for the Pap smear and the indirect Coombs, which were ordered for 4.1 percent and 5.5 percent of the pregnant women, respectively. However, as we cannot be sure whether there were indications for ordering these tests or not, these data could not be discussed in more depth. Although most of the pregnant women had routine tests ordered, we still can see a deficit, since some tests such as VDRL, fasting glycemia, hemoglobin/hematocrit and urinalysis should be ordered for 100 percent of pregnant women, which did not occur.

By analyzing the prenatal forms and the mothers' cards of the participants, we came across poorly made records, which were limited to the questions in there. Thus, it made it difficult to verify the achievement of the conducts and procedures, considering the insufficient information available.

**Table 3 -** Distribution of women pregnant, according to procedures performed during prenatal care. Quixadá/CE. 2008. n=73.

| **Variables** | **F** | **%** |
|---|---|---|
| Observe the position of the curve to assess nutritional status | 2 | 2,7 |
| Determination of weight | 57 | 78,1 |
| Determination of height | 43 | 58,9 |
| Blood pressure (BP) | 72 | 98,6 |
| Edema research | 24 | 32,9 |
| Breast examination | 14 | 19,2 |
| Uterine height (UH) | 70 | 95,9 |
| Fetal heart rate (FHR) | 70 | 95,9 |
| Fetal situation/presentation | 23 | 31,5 |
| Subsequent consultations scheduled | 68 | 93,2 |
| Gestational age (GA) | 71 | 97,3 |
| Interpretation of laboratory tests | 18 | 24,7 |
| Referral for dental services | 7 | 9,6 |

It was observed that all units have the necessary material and equipment to perform the medical procedures (conclusion reached by observing the UBS). However, Table 3 shows that the prenatal procedures were not performed accordingly. Only 2.7 percent of the cards showed records related to nutritional assessment; the pregnant women's weight and height were recorded in 78.1 percent and 58.9 percent of the cases, respectively; information about edema research was found in only 32.9 percent of the cards; records relating to BP, UH, GA and FHR were present in most of the cases. There were records related to breast examination only in 19.2 percent of the cards analyzed, which disagrees with 61.6 percent of the participants who claimed that such examination had been performed, as previously mentioned. This data reveals that the record forms might have been neglected by the nurses.

Regarding interpretation of the laboratory tests, only 24.7 percent of the cards had such records, which represents a negative factor, considering the importance of such data to other professionals who will provide assistance to these pregnant women, such as at the time of baby delivery. Moreover, only 9.6 percent of the cards showed referrals for dental service.

**Table 4** Distribution of pregnant women according to their personal and obstetric history in the antenatal card. Quixadá/CE. 2008. n= 73.

| **Variables** | **F** | **%** |
|---|---|---|
| Hypertension | 63 | 86,3 |
| Diabetes | 62 | 84,9 |
| Surgeries | 4 | 5,5 |
| Transfusions | 6 | 8,2 |
| Results of last Pap (gynaecological) | 5 | 6,8 |
| Nº of pregnancies | 71 | 97,3 |
| Nº of deliveries | 46 | 63,0 |
| Nº of abortions | 47 | 64,4 |
| Nº of living children | 46 | 63,0 |
| Infants with low birth weight | 38 | 52,1 |
| Early or late neonatal deaths | 8 | 11,0 |
| Interval between last pregnancy and current one | 23 | 31,5 |
| Smoking habit | 43 | 58,9 |

Table 4 shows the frequency of records relating to the history of the pregnant women. It is relevant that, of the items in the table, there was only record of hypertension, diabetes and multiple births. The other background data on the card (fetal malformation and others) were not recorded on 100 percent of the cards. Regarding family history, it is important that records relate to both presence and absence of it.

## DISCUSSION

It is common knowledge that pregnant women should receive guidance during prenatal care by professionals who provide assistance. Because nurses are the professionals who work most closely with mothers during the prenatal period, they play a crucial role with regard to health education and issues related to pregnancy in general such as childbirth, breastfeeding and baby care, among others.

The fact that the majority (82.2 percent) of women claimed to have never participated in educational activities is negatively viewed, since the MH highly recommends, among the different kinds of educational activity, group discussions, role plays and other dynamics to facilitate communication and exchange of experiences among group members[9].

In everyday practice, hospitality and humanization can be perceived through attitudes and actions in the relationship established between professionals and users, for example, the friendliness of the environment, with the professionals presenting themselves, calling the mothers by their names, reporting on conducts and procedures, listening to and valuing what is said by the women, ensuring privacy, encouraging the presence of a companion, and others[5]. Subsequent visits during the prenatal period should be previously scheduled, that is, each pregnant woman should be informed of the exact date and time of her next appointment. In everyday life, one realizes that there are not scheduled appointment times, but only appointment dates. Given the above, the sample showed a median waiting time of two hours, which reduces the quality of prenatal care immensely as women come very early to the Unit and wait idly to be attended to. This time of idleness should be used for the development of educational activities, since they can be very valuable for both professionals and patients.

Table 4 shows that the registers concerning prenatal care are not updated properly, since there was a lack of information on all antenatal cards studied, that is, 100 percent of these cards were incomplete or outdated. This reveals the need for a change in the attitude of nurses who are responsible for assisting pregnant women with the aim of improving the service offered. They must understand that keeping all the information and

performed procedures updated is key to ensuring the quality of assistance. Study conducted in 2003 shows that nursing records are the only means of demonstrating the work performed, which reflects the efficiency and effectiveness of the care service offered to mothers[10].

Comparing the service provided with that recommended by the MH, the conclusion is that there is still much room for improvement, especially regarding: the reception of pregnant women; the act of encouraging the presence of the partner in prenatal visits in order to prepare him to support the mother at the time of child delivery; monitoring health education sessions; performing a complete physical examination; and recording all information needed.

According to the data above, it seems that pregnant women do not have a clear idea of what ideal prenatal care would be, that is, what is recommended by the MH. They were satisfied with the quality of the care service despite reporting negative aspects of it, such as long waiting times, which showed a median of two hours, and lack of information on important topics such as childbirth, for example.

After analyzing the antenatal cards, it appeared that 100 percent of them were incomplete and lacking relevant information, which may cause damage to the mother and/or child and hinder the continuity of care, especially at the moment of child delivery. Moreover, there is a clear need for development/construction of an appropriate instrument for keeping all information related to each pregnant woman, since the prenatal record form is simply a copy of the mother's card, which does not offer enough space to keep all the relevant information. However, such a space issue does not justify the lack of registration, which could be done even on an ordinary sheet attached to the mother's card and/or to the prenatal record form.

## CONCLUSION

Regarding the development of consultations, we note that it involves only basic procedures related to pregnancy itself, not recognizing the importance of a holistic approach to maternal care, which goes against the WHO's (World Health Organization) recommendations stating that prenatal care must be comprehensive and must take into account the intellectual, emotional, social and cultural needs of women, children and relatives, rather than being merely a matter of biological care.

It is important to note that we had some difficulties in this study, for instance, difficulty accessing rural UBS. However, such difficulties did not prevent us from completing the study with quality.

Given the results presented, we suggest the application of the MH recommendations for nurses working in prenatal care and highlight the importance of considering pregnant women beyond their biological aspect and integrating a bio-psycho-socio-spiritual approach to prenatal care.

All this brings us to the following reflection: it is becoming increasingly necessary for nurses to face new challenges and reflect upon their own practice, aiming at a new model of care based both on techno-scientific and human competence, and thus ensuring improvement and effectiveness of the care service provided to the population.

**REFERENCES**


1. Nascimento ER, Rodrigues QP, Almeida MS. Indicadores de qualidade da assistência pré-natal em Salvador-Bahia. Acta Paul Enferm. 2007; 20(3):311-5.
2. Brasil, Ministério da Saúde. Secretaria de Políticas de Saúde. Departamento de Gestão de Políticas Estratégicas. Assistência pré-natal: manual técnico. 3ª ed. Brasília: Ministério da Saúde; 2000.
3. Brasil, Ministério da Saúde. Secretaria de Políticas de Saúde. Área Técnica de Saúde da Mulher. Parto, aborto e puerpério: assistência humanizada à mulher. Brasília: Ministério da Saúde, 2001.
4. Barbosa M, Fernandes R. Evaluation of prenatal care in low risk pregnancies- a descriptive exploratory study. Online Braz J Nurs [periodic in the Internet]. 2008 [cited 2011 Jul 3]; 7(3). Available from: http://www.objnursing.uff.br/index.php/nursing/article/view/1861.
5. Serruya SJ, Secatti JG, Lago TG. O programa de humanização do pré-natal e nascimento do Ministério da Saúde no Brasil: resultados iniciais. Cad Saúde Pública. 2004; 20(5):1281-9.
6. Ceará, Secretaria Estadual de Saúde. Secretaria de Planejamento e Gestão. Coordenadoria de Planejamento, Orçamento e Gestão. Gestão Pública por Resultados (GPR): Relatório de Desempenho Setorial (RDS 2011). Fortaleza: Secretaria Estadual de Saúde; 2012.
7. Luiz RR, Magnanini MMF. O tamanho da amostra em investigações epidemiológicas. In: Medronho A. Epidemiologia. São Paulo: Atheneu; 2006. p. 295-307.
8. Bergamasco RB, Gualda DMR, Okazaki ELJ. A construção de indicadores e elaboração de instrumentos de avaliação da assistência à gestante. In: Cianciarullo TI, Silva GTR, Cunha ICKO. Uma nova estratégia em foco: o programa de saúde da família - identificando as suas características no cenário do SUS. São Paulo: Ícone; 2005.
9. Brasil, Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Ações Programáticas Estratégicas. Pré-natal e Puerpério: atenção qualificada e humanizada. Brasília: Ministério da Saúde; 2005.
10. Vigo KO, Pace AE, Santos CB. Análise retrospectiva dos registros de enfermagem em uma unidade especializada. Rev Latino-Am Enfermagem. 2003; 11(2): 184-91.



**Received:16/02/2012**
**Approved:28/06/2012**