ABSTRACT

Objectives: characterizing nursing professionals working in prenatal primary care and identifying the profile and qualification of nursing professionals who provide care for pregnant women, highlighting the importance of prenatal care conducted by qualified professionals. Method: a descriptive study of a quantitative approach, data collection through structured interviews directed to 156 professionals in the city of Ribeirão Preto-SP. For data analysis there were used the descriptive statistics. Results: there was a predominance of female professionals, married, with an average age of 45,1 years old, with children and over ten years of training. The income of the auxiliary is of 37,9% of the income of nurses and 49,7% of technicians. Most nurses have some sort of Postgraduation; of these, six have specialized in obstetrics. Conclusion: prenatal care is provided by mature and experienced professionals, who have had time to improve and had discreet professional qualification focused on obstetrics. Descriptors: Obstetric Nursing; Prenatal Care; Professional Competence.

RESUMO

Objetivos: caracterizar os profissionais de enfermagem que atuam no pré-natal da atenção básica e identificar o perfil e a qualificação dos profissionais de enfermagem que prestam assistência às gestantes, ressaltando a importância da assistência pré-natal conduzida por profissionais qualificados. Método: estudo descritivo com abordagem quantitativa, com coleta de dados por meio de entrevista estruturada dirigida a 156 profissionais do município de Ribeirão Preto-SP. Para análise dos dados foi utilizada estatística descritiva. Resultados: houve predominância de profissionais do sexo feminino, casadas, com média de idade de 45,1 anos, com filhos e mais de dez anos de formação. A renda dos auxiliares é de 37,9% da renda dos enfermeiros e a dos técnicos de 49,7%. A maior parte dos enfermeiros possui algum tipo de pós-graduação; destes, seis possuem especialização em obstetricia. Conclusão: o cuidado pré-natal é prestado por profissionais maduros e experientes que já tiveram tempo para se aprimorar e tiveram discreta qualificação profissional voltada à obstetricia. Descritores: Enfermagem Obstétrica; Cuidado Pré-Natal; Competência Profissional.
INTRODUCTION

Maternal mortality is an indicator of disparity and inequity between men and women and its extension reveals the place of women in society and their access to social services, health and nutrition, as well as economic opportunities.¹

The main causes of maternal deaths are known, and over 80% of them could be prevented or avoided by effective and available actions, even in the poorest countries of the world. This tragedy is even greater when we see that women die during normal reproductive process and that many of these deaths could be prevented through basic preventive measures such as early identification of complications, taking actions in emergency care situations beyond use of qualified staff in care for women during the process of pregnancy, labor, birth and postpartum.¹

Prenatal care is therefore an important factor in reducing maternal and perinatal morbidity and mortality, since many diseases of pregnancy and postpartum period can be treated and/or controlled. A prenatal care of quality will certainly contribute to avoid specific problems when giving birth, to the mother and to the newborn, in addition to those of the puerperal period.²

The qualified prenatal care occurs through the incorporation of warm procedures without unnecessary interventions, quality health services and easy access to the user, which includes actions at all levels of care focused from the mother to the newborn from the most basic to the most complex, with the availability of trained professionals.³

Monitoring and quality of care provided to pregnant women in prenatal low risk can be performed by nurses, as well as having legal support, presents theoretical and scientific basis adequate;³ however, for this to be possible during the process of training, nurses should be trained about the necessary skills to reach the necessary skills for prenatal quality.⁴

Professional qualification requires some fundamental questions, such as training, education and basic skills for the management of low-risk pregnancy, and childbirth, postpartum and conduct of possible complications.⁵

The International Conference of Midwives (ICM) prepared a document in 2002; revised in 2010; as a result of a study between 1995 and 2001, held in 17 countries across five regions (Asia/Pacific, Africa, the Americas and Europe), including key skills spoken to the “Basic Practice of Obstetrics”. This seeks to answer the questions that seek to identify what knowledge and skills should be part of a qualified professional profile.⁶

For this, six professional skills were listed, among them, the concern with obstetric care that provides high quality prenatal, including early detection capacity of possible complications, as well as to address them and forward them as needed.⁷

The development of key skills is the reference to be followed by professional training, both within the skill, as in the performed skills.⁷ Thus, this study aims to:

- Characterizing nursing professionals working in prenatal primary care;
- Identifying the profile and qualification of nursing professionals who provide care for pregnant women, highlighting the importance of prenatal care conducted by qualified professionals.

METHOD

This research is part of a larger project, organized by the World Health Organization/Pan American Health Organization (PAHO/WHO) on the << Profile of obstetric services in the Americas >>, linked to the WHO Collaborating Centre for development Research in Nursing at Ribeirão Preto, University of São Paulo College of Nursing (EERP - USP), project coordinating body at the national level.⁸

This is a descriptive study of a quantitative approach carried out in Ribeirão Preto, which is located in the northeastern state of São Paulo, 313 km from the state capital and is among the largest cities in the state of São Paulo and Brazil.

The city has an estimated population of 604,682 inhabitants, 322,344 women, of whom 179,603 is of childbearing age, ie between 15 and 49 years old.⁹

In the period from 2007 to 2012 the municipality issued a maternal mortality ratio that ranged from 0 to 52.5 per hundred thousand live births, while in 2008 there were 4 maternal deaths, two of them by unavoidable causes. The deaths of women between 10 and 49 are all investigated by the Maternal Mortality Committee, reactivated since 2002.⁹

Health facilities follow the protocol for assistance to prenatal and postpartum period, set up by the City Health Department - SMS, which defines the health team assignments involved with this assistance and directs the actions to be taken. Thus nurses perform the
first service for the diagnosis of pregnancy through rapid testing (pregnositcom®), meet all the protocols and perform the initial guidelines; after-schedule the first prenatal consultation with the medical unit.10

The primary care network of Ribeirão Preto consists of five health districts, which rely on the service five Basic Health Units of the District (BHU), 24 Basic Health Units, five Family Health Centers, eight Family Health Units, four-School Health Centers and a Community Social Medical Center, totaling 47 health units. It should remember that one of the basic units of the municipality does not offer primary care services.

The project was submitted to evaluation by the Health Department of the Municipality, which authorized the collection of data in their health units across the network after approval by the Ethics Committee of the Ribeirão Preto School of Nursing. The project was approved by that Research Ethics Committee, according to the regulatory rules of Resolution 466/2012 of the National Health Council, CAAE: 4204.0.000.153-09.

This study included obstetric nurse, nurses, technicians and nursing assistants who attend women during pregnancy, prenatal care, in all health units in the city and made themselves available to participate in the study after reading and signing the Free and Clear Consent Form. The sample consisted of 156 professionals.

The data were collected through a structured interview with the study subjects through adapted script Dotto and wedge work.4,1

Data were stored in a database in Excel®, with double entry. After validation of the data, they were transferred to another software, estata®, who assisted in the statistical analysis.

Data analysis was performed using descriptive statistics based on documentation that supports skilled attendance at birth such as: Practical Guide to Natural Childbirth Assistance (WHO), Birth, Abortion and Puerperium manual - Humane Assistance to women, the Ministry of Health, the core competencies published by the ICM/WHO/PAHO, and the Guidelines of the Integrated Management of Pregnancy and Childbirth (IMPAC/WHO).

**RESULTS**

There were interviewed 156 subjects after consent to participate in the study, 69 (44,2%) nurses, 9 (5,8%) nursing technicians and 78 (50%) nursing assistants.

Among the professionals interviewed the majority (96,2%) were female, most (74,3%) are 40 years old or over, married or in a stable relationship (62,2%), with two children (28,9%) and only four of the 33 single women had children.

Among the mid-level professionals, 21 (24,1%) reported being enrolled in/or have completed higher education. The level of education found concentrated in secondary school (38,5%) and higher education (51,3%).

About income in the institution there was found an average of R$ 1.423,78 for nursing assistants; R$ 1.868,22 for technicians, and among nurses found the average income was R$ 3.756,92. Thus, we find that the assistants have a fee of 37,9% of the income of nurses and technicians of 49,7%.

The average family income was of R$ 3.256,76 for nursing assistants; R$ 2.388,89 for nursing technicians and R$ 6.866,15 for nurses. It was observed that 32,7% of professionals have family income between R$ 3.000,00 and R$ 5.000,00 and 37,2% family income over R$ 5.000,00.

For continuing training variables, we found that the highest percentage of professionals (37,8%) have between 21 and 30 years of education. When checked by professional category, it appears that 46,1% of nursing assistants have up to 10 formative years (average of 13,6 years); the technical team has 30 years of education (average of 17,1 years), and most nurses operating in prenatal care has over 20 years of professional training (average of 23,5 years). The presence of an experienced nursing staff, working in the area for a long time has been verified.

When asked about their training, we found 51,3% (40) nursing assistants who did the vocational technical course, but also act as nursing assistants. There are four nursing assistants who hold the degree course in nursing, but even after its formation continue in the same role.

It was found that 59% of professionals have learned to act in prenatal care in the network of primary health care, i.e, reported having learned in practice in the unit in which they work, trained by other professionals already working there.

Regarding the professional category who taught classes about prenatal care during training, most were distributed among nurses (38,5%) and obstetric nurses (40,4%), what shows that many professionals have already been learning more qualified for this area of professional knowledge.
To ascertain participation in professional development realizes that most professionals (54.5%) have not participated in recent years, update courses for pre-natal care.

Among the refresher courses offered by the SME, professionals cited the participation in the following topics: breastfeeding, sexually transmitted diseases, family planning, cervical screening and prenatal care protocol.

Participation in scientific events in the health of women in recent years took place in a very discreet way, with only 30 professionals reported having attended any event at this level.

To ascertain the involvement of nurses in stricto sensu courses, we found that 63 (91.3%) professionals attended any of these. Only six nurses did not attend any graduate. Of those who attended specializations, got most of the subjects with two specializations or more (62%), and the most modalities have been processed through the public health and public health professionals with 23, followed by the family health, with 13 professionals.

We found that of the 63 nurses who attended graduate, thirteen attended the strict sense graduate, and eleven professionals at the master's level, with eight who attended the public health, covering health care wife and three general nursing; and two professionals at the doctoral level, in the public health area and the other in general nursing.

The municipality of Ribeirao Preto/SP seeks to meet the demand of prenatal care from the perspective of Integral Assistance Program to Women's Health, so the SMS uses a management protocol for health professionals working in this area and directs the pipes to be taken.

In this scenario, the nurse acts following a call flow diagram. The beginning is with the woman call search late complaints or menstrual irregularities, nausea and/or vomiting, pain and/or increase of the volume of the breasts or increased abdominal size. At this time, it can be answered immediately by the nurse or need to schedule a nursing consultation to remedy his needs. The nurse is the host, historical reap the menstrual cycle, the last menstrual period if there is sexual activity and use of contraception; if verified missed period greater than a week in sexually active women, the procedure is pregnancy test. Thus, prenatal care provided by nurses is systematized, standardized, limited to the first visit.

The performance of mid-level nursing professionals is through the pre- and post-prenatal consultation. The patient comes to the unit, the auxiliary or practical nurse checks the blood pressure, weight, height, complaints, availability of test results to be checked by the doctor, and forwards it to the medical consultation. After the service, the pregnant returns for clarification to be performed by the same professional nursing, about the use of medicines prescribed by the doctor ordered tests, following consultation schedule and demand for unity if any complications.

**DISCUSSION**

This study surveyed 156 professionals, of which 44.2% are nurses, 5.8% technical and 50% nursing assistants. Realize the prevalence of mid-level professionals, a factor that was also relevant in the study conducted in 2008 in the city of Araraquara-SP, who expounded upon the skilled care at childbirth. Still in the study on maternity in Piracicaba-SP, on the role of nursing staff in caring for women during labor, birth and postpartum; found that 79% of the sample consisted of mid-level professionals, while only 21% were nurses. Still in São Paulo, in the city of Porto Ferreira, in a study on the professional qualification an insufficient number of nurses was found acting on site.

In Latin America the average level of professional account for about 83.8% of the workforce, ranging from 52.7% to 87.8%, while in Brazil the estimated percentage of nurses is 16.2% thus demonstrating a higher proportion of technicians and nursing assistants who work in health care.

The professional categories that cater to women during the prenatal showed female predominance, with 96.2% of respondents, finding only six male professionals working in prenatal care. This characteristic was similar to that found in a study on the nursing team's actions in pregnancy and childbirth and key competences for skilled attendance at birth in São Carlos-SP, where 97.3% of the sample was female.

We found studies in the municipalities of Rio Branco - AC and Ferreira - SP showed that more than 85% of nursing professionals who work in prenatal care are female. In the municipalities of São José do Rio Preto, Sorocaba and Piracicaba, state of Sao Paulo, it was observed that 100% of nursing professionals who work in pregnancy and childbirth are female.

Although in recent years the training courses in nursing have increased in Brazil, it is still strong female presence in this area of
knowledge. The feminization of Brazilian nursing, a fact that makes us reflect about the own training process is evident; in which nurses and nurses are the result of a dynamic and complex construction process of defining the relations between the sexes and "be" nursing. 

Such predominance leaves rooted homogeneous discourse about sex, also demonstrating that for male social image such profession does not denote value. It is clear the presence of a deliberate selectivity based on sex in the field of Brazilian nursing, evidenced in teaching and conditioned by students; field that permeates the very selectivity of teachers and even textbooks, which is explicitly the choice of patients and most appropriate techniques to gender skills.

In this way, the man stands out for his physical strength and his wife for other attributes such as dedication and patience. 

Of all individuals find more mature professionals, with 74,3% aged over 40 years old, with an average age of 45,1 years old. Sorocaba found in 86,5% of subjects studied over the age of 30 years old, as well as in São José do Rio Preto, in which 66,7% were over 30 years old. 

In the study conducted in Rio Branco/AC the average age of the professionals interviewed was 41.8 years old, and most were over the age of 40, revealed professionals with long experience in the treatment of women in pregnancy and childbirth and reached the personal maturity. 

Thus, it found a profile of mature professionals in both the professional point of view as in age, similar to the characteristic shown in this study. More mature professionals have more practical experience; they had more time to improve, they are safer and accumulate much information to offer to pregnant women. However, they require constant updating and run the risk of becoming resistant in the search for recycling, as it already closer to retirement.

We found that 62,2% of nursing professionals who work in prenatal care in the municipality of Ribeirão Preto are married or living in common-law marriage. This observation was the same percentage of married nurses in the municipalities of São Carlos and Sorocaba.

The nursing staff of many local lives, mostly in marital status and already had children. In Ribeirão Preto-SP, 72,4% of respondents had children, of which 28,9% had two children. In the municipalities of São Carlos and São Jose do Rio Preto, all in the state of São Paulo, most professionals have children with percentage 64,8% and 57,2% respectively.

When we checked the level of education we noticed that 24,1% of the subjects of this study are mid-level professionals already been inserted or completed a degree course. There is a clear demand for professional development by mid-level professionals with a view to improving wages.

Regarding the income in the public health institution, we find that in Ribeirão Preto-SP, the remuneration of nursing assistants makes a total of 37,9% of the income of the remuneration of nurses and technicians 49,7% of this income. Other studies have well diversified behavior checked. In Rio Branco-AC, technicians and nursing assistants who work in prenatal care have a remuneration of 33,7% of the income of nurses, and those who work in childbirth care the percentage is 32,83% of the rent nurses, values lower than that studies the Southeast show.

In Latin America the mid-level professionals have to pay 69.5% of the income of nurses, that is, they receive only 30% less than the top-level professionals. This characteristic differs from that found in this study.

The family income of the nursing professionals who work in prenatal care in Ribeirão Preto, we found that 32,7% of patients have a family income of R$ 5,000.00. Regarding the average and variance of family income for the nurses found values were R$ 6,866,15 ranging from R$ 2,000,00 to R$ 15,500,00. This result was different to that found in Porto Ferreira-SP and São Carlos-SP, municipalities showed that average household income of nurses was R$ 4,333,33 in the first, ranging from R$ 2,000,00 to R$ 6,500,00; and R$ 4,003,35 in the second ranging from R$ 2,000,00 to R$ 10,000,00.

In this study the family income of mid-level professionals ranged from R$ 1,200,00 to R$ 7,000,00 for the auxiliary, averaging R$ 3,256,76 and R$ 1,200,00 to R$ 5,000,00 for nursing technicians, averaging R$ 2,388,89.

Confronting the values with the results of studies in Porto Ferreira and São Carlos-SP observe middle and lower variation from the first and middle and upper range in the second, with an average family income of R$ 3,258,63, ranging from R$ 800,00 R$ 18,000,00.

It notes that nursing professionals have contributed significantly to the family income. When checking the training time we concluded that nursing professionals who work in prenatal care in primary health care of Ribeirão Preto-SP are experienced. The time...
of completion of the course of higher degree ranged from one to forty-two, the average time of training of nurses was of 23.5 years old, 17.1 years technical and auxiliary 13.6 years. Among the respondents, the highest percentage, 37.8% have between 21 and 30 years of graduation. What characterizes the inclusion in the health area long enough to seek for qualification and professional development.

Thus, in this study, it was expected that the more mature professional professionally had already developed the skills and core competencies for the exercise of skilled obstetric care. While those who are beginning their career and with little experience in women's health, youth and professional maturity have better perspective on the demand for expansion of qualification for professional assistance.13

Also in relation to vocational training, we found that 40 (51.3%) nursing assistants attended vocational technical education in nursing, but still acting as nursing assistants.

In Ferreira found six qualified professionals who acted as assistants and after completion have changed their occupation to technical nursing in the institution where the study was conducted.13 In São Carlos, there were interviewed three nursing assistants who have degrees in nursing and four with incomplete higher education.15

These results demonstrate the difficulties that professionals are in institutions even after professional development do not always have on hand a Job and Career Plan.

When asked where they learned about prenatal care, the professionals Ribeirão Preto answered mostly (59%) that learning occurred in practice through the work in the primary care network in health. This finding did not differ much from that found in the study conducted in Piracicaba - SP, in which professionals reported having learned midwifery professional practice, vocational training and a mixture of the two, highlighting the issue of informal education and making us reflect on the importance the training and continuing education offered by institutions.12

Regarding the teachers during the training, the nurses reported having had classes with midwives, and in three cases with participation of doctors, as the assistants and technicians have learned next to no specialty nurses in the area mainly; fact that makes us reflect on the training profile which is being executed by some institutions this result is similar to that found in the sample studied in Porto Ferreira-SP.13

In Ribeirão Preto most professionals (54.5%) denying having participated in refresher courses aimed at prenatal care in recent years. Similar results were found in Rio Branco-AC, where nurses participated in refresher courses in prenatal care, but there was no participation of mid-level professionals.3

With regard to scientific events, only 30 (19.2%) professionals reported having participation in recent years, similar occurrence was visualized in studies conducted in São Carlos-SP, Rio Branco-AC, Piracicaba, Sorocaba and São José do Rio Preto-SP 15,3,4,12,17,16 yet in Piracicaba-SP, it was found that of the 15.9% who participated in any event, the professionals do not remember the agenda or subject, leading to the belief that event added little to the knowledge of these individuals.17

Professionals need of improvement in an environment outside the formal education through congresses, conferences and seminars; all because of constant technological obsolescence and knowledge.19 It changes emphasize at this point the importance of the institution’s intervention in encouraging the participation of its servers in the various scientific events, as well as to strengthen the practice of lifelong education in order that all employees have access to the promoted courses and training.

The qualification of Ribeirão Preto nurses, through the broad Graduate courses stricto sensu, occurred in 91.3% of cases, only six nurses made no graduate. All routed specialties I find only six nurses and two midwives attending specialization in prenatal care. High values were also found in other studies, which also showed the lack of obstetric nurses working in the area.11,13,15,16

Thus we see that the presence of obstetric nurses is not yet strong in primary health care. This finding makes us think about the importance of specialization in obstetrics in the management of pregnancies; improvement that facilitates the conduct of pregnancy by the nurses.

Regarding the number of attended specialized courses we found that most (62%) was in more than one specialization, opposite to that found in São José do Rio Preto-SP, where 56% of the nurses just attended a specialization course.16

Of those interviewed, only 11 attended the master's level stricto sensu and two at the PhD level, even if not all are linked to teaching and/or research.
All nurses are based on the service focused on the clinical protocol offered by the municipality, which enables early identification of pregnant women and test ordering and verification of obstetric profile in the first quarter, but does not work the systematization of nursing care. The protocol does not reflect the need for monitoring prenatal low risk from nurses continuously throughout pregnancy. This feature is similar to that cited by a study conducted in São Carlos-SP, where the same as displayed in this study, nurses do not meet all the recommendations of the core competencies to be developed according to the ICM, but adopt the assistance program integral to women's health proposed by the municipality.\textsuperscript{6,15}

In a study conducted in Goiânia/GO, in 2002, was exposed that nurses performed only the first prenatal visit and the others were held by doctors, factor related to resistance from doctors the possible autonomy of the prenatal care offered by nurses.\textsuperscript{20}

The performance of mid-level professionals in prenatal care was concentrated in the pre and post-consultation, where check weight, height, blood pressure, administer drugs, vaccines, conduct guidelines about prescribed medications, scheduling and referrals requested by the doctor. Similar data was reported in a survey conducted in the municipality of Rio Branco/AC.\textsuperscript{3}

Thus, when viewing the reality of prenatal care in Preto Ribeirão come across the model centered medical care, with the presence of few obstetric nurses and a team of technicians and assistants with little participation on updates and experience in practice, through contact with other professionals.

CONCLUSION

Prenatal care provided by primary care network that municipality with the participation of nurses, midwives, technicians and nursing assistants as it relates to nursing staff. The study population included 156 professionals, predominantly female, married or in a stable relationship, with an average age of 45.1 years old and most with children, with more than ten years of training. The income of the auxiliary is 37.9% of the income of nurses and technicians of 49.7% of this. Regarding family income, the highest percentage (32.7%) of professionals has an income above R$ 5,000.00.

Most professionals have learned to work in prenatal care in practice in the primary care network to health, had lectures and stage during vocational training, taught by obstetric nurses (40.4%) and nurses without this specialty (38.5%). Most did not participate in refresher courses in the health of women in recent years, either scientific events in the area.

It found that 91.3% of nurses have some form of post-graduation; these six have specialization in midwifery. Most attended more than a specialization course.

Nurses recognized their prenatal care as the first service offered to pregnant women, which takes place from the pregnancy test, as the team of technicians and nursing assistants work with simple procedures in pre- and antenatal post-consultation, checking weight, height, blood pressure and complaints from pregnant women.

Prenatal care provided by nursing professionals in Preto Ribeirão has given up mechanically, as in the medical model. There is a clear presence of nurses who attend refresher courses, but few specializing in obstetrics. Regarding the team of nursing assistants and technicians to participate in refresher courses not given expressively, evidencing the experience gained in practice, through contact with other professionals.

REFERENCES


Profile of nursing professionals that act...