



Online Brazilian Journal of Nursing

E-ISSN: 1676-4285

objn@enf.uff.br

Universidade Federal Fluminense  
Brasil

Félix Américo, Camila; Santos Monte, Alana; Ribeiro Tamboril, Ana Carolina; Alves da Silva Alcântara,  
Jacqueline; Ferreira Moura, Escolástica Rejane

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Online Brazilian Journal of Nursing, vol. 12, núm. 4, 2013, pp. 805-812

Universidade Federal Fluminense

Rio de Janeiro, Brasil

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## Attention to family planning and avoidable reproductive risk: a transversal study

Camila Félix Américo<sup>1</sup>, Alana Santos Monte<sup>2</sup>, Ana Carolina Ribeiro Tamboril<sup>1</sup>, Jacqueline Alves da Silva Alcântara<sup>1</sup>, Escolástica Rejane Ferreira Moura<sup>1</sup>

<sup>1</sup> Ceará Federal University

<sup>2</sup> Ceará State University

### ABSTRACT

**Aim:** To know the profile of women assisted in the family planning program and to verify the presence of reproductive risks. **Method:** This is an analytic, transversal study performed with 264 users of the family planning program of the public health system of the city of Fortaleza, Brazil, from March to June 2010. The data was collected through interviews and then submitted to a descriptive statistical analysis. **Results:** The predominant age group was between 20 and 28 years old (52.7%), with a single partner (84.1%), completed high school (59.5%) and income above three times the minimum wage (42.4%). The prevailing reproductive risk factor was teenage pregnancy (36%), followed by a pregnancy interval below two years (15.9%), multiparity, that is more than four deliveries, (6.4%) and pregnancy above the age of 35 years old (3%). **Discussion:** The findings demonstrate an elevated prevalence of reproductive risks in women assisted by the family planning program. **Conclusion:** Avoidable risk factors must be the focus of education in health programs, so couples can plan pregnancies without risks.

**Descriptors:** Risk Factors; Reproductive Health; Family Planning

## INTRODUCTION

The Brazilian Federal Growth Acceleration Program (PAC, in Portuguese), launched in 2007, tries to combine economic growth with social development and equity. Public health is one of the most fundamental areas of work of this federal program. In this venue, the Program "More Health: Right of All" has a holistic view, aiming to deepen and update the objectives of the Brazilian Unified Health System (SUS, in Portuguese) in a contemporary context, this means aggregating new challenges and dimensions so as to reach the goals of universality, equity and integrality. This latter program contemplates 73 measures and 165 goals, and among these measures in the area of promotion of health, there is the expansion of the actions in family planning<sup>(1)</sup>.

In this context, the relevance of caring in family planning is the responsibility of the teams of Family Health Study (FHS) as leaders in basic care at SUS, assisting men, women and/or couples in this area of care, developing spaces of discussion about the importance of conscious choices regarding maternity and paternity, including cultural and socioeconomic aspects and in reproductive health.

The offering of family planning services is seen in the area of promotion of reproductive health in order to minimize countless reproductive risks. However, in this article, the following risks were studied: occurrence of births in the extreme limits of the reproductive age spectrum (below 18 or above 35 years old), interdelivery interval below two years and multiparity (above four births), as they are risks that are preventable through guidance and counseling in the area of family planning.

The negative health outcomes that can come from the mentioned reproductive risk factors are discussed in the scientific literature<sup>(2,3,4)</sup>. Women that deliver after the age of 35 years

old have higher risks of complications during pregnancy and tend to give birth to premature or low weight babies. Prematurity is also more common in short gestational intervals (below two years apart) and in multiparity (above four births); the latter also contribute to higher chances of cerebrovascular hemorrhages<sup>(3,4,5)</sup>. Teenage mothers are exposed to a higher risk of morbidity and mortality. Besides the biological aspects, the higher impact involves the psychological and socioeconomic dimensions. Once pregnancy during adolescence interferes negatively in the lifestyle of these teenagers and their relatives, relationship conflicts are caused<sup>(6)</sup>. Scientific investigations have shown the relationship between a short interdelivery interval (less than six months) and many other aberrations, such as neural tube defects, congenic cardiac diseases, birth of babies with low weight and anemia<sup>(7)</sup>.

A research that had a large, nation-wide sample from 15 Brazilian capitals, in 2006, identified that 2,504 (14%) of women up to 19 years old had at least one son alive<sup>(8)</sup>. Other reproductive risks were not investigated by this large research. Another study performed in the Brazilian state of Ceará, with 279 users of the family planning service of 88 areas of FHS found 33 (13.9%) women with medical records of four or more deliveries, 151 (65.4%) with the age of the first delivery between 11 and 19 years old, 4 (1.8%) had children after the age of 35 years old and 55 (36.2%) had an interdelivery interval inferior to two years<sup>(9)</sup>. Therefore, the reproductive risks here discussed and subject to control by actions in family planning offered in basic care are present in the assisted clientele of the respective services.

Based on the data revealed, the main question arose: are the women who are using the family planning services in basic care in the city of Fortaleza exposed to avoidable reproductive

Américo CF, Monte AS, Tamboril ACR, Alcântara JAS, Moura ERF. Attention to family planning and avoidable reproductive risk: a transversal study. *Online braz j nurs* [Internet]. 2013 Dec [cited year month day]; 12 (4): 805-12. Available from: <http://www.objnursing.uff.br/index.php/nursing/article/view/4241>. <http://dx.doi.org/10.5935/1676-4285.20134241>

risks? To respond to such an issue, this study aimed to analyze the demographic and socioeconomic profile of women assisted in family planning services by the FHS teams, and to check the presence of avoidable reproductive risks in this same group.

It is seen that the relevance of this research, which will determine the profile of women assisted in family planning services, once this data is elaborated, will be very useful to achieve an improvement in health services, and to support the demand, as it is intended to describe the consistent and the non-consistent practices in order to avoid such reproductive risks.

## METHOD

This is an analytic and transversal study, with a qualitative approach, performed in seven Family Health Centers (FHC) of the city of Fortaleza, Brazil, between March and June 2010.

The population was composed of 841,481 Women in Childbearing Age (WCA) of the mentioned municipality. The parameter for childbearing age used was between 10 to 49 years old, as adopted by the Brazilian Ministry of Health<sup>(10)</sup>. The “n” of the sample was considered through the formula to calculate infinite populations, in a level of trust of 95%, sample error of 5%, P proportion of 22.1%, reaching the number of n=264. The value of P was established based on the Brazilian National Research of Demography and Health (PNDS, in Portuguese)<sup>(8)</sup>.

The municipality of Fortaleza is administratively divided into six Regional Executive Offices (SER, in Portuguese). In each SER, a FHC was chosen, so that the chances of users of any basic care unit participating in the study was the same. In one of the SER, two health centers were chosen, because the first one presented an insufficient demand by women.

Women supported by a private family planning service were excluded from this research.

The data was collected through individual interviews with women and registered by the researcher in the guiding form, together with the interview. The form had questions about demographic and socioeconomic aspects (age, marital status, education and family income); and about reproductive risks: mother’s age near the extremes of reproductive age range, interdelivery interval shorter than two years and multiparity (above four deliveries).

The data was processed by the software Statistical Package for Social Sciences (SPSS), version 13.0, and presented in tables and charts, with data of descriptive statistics.

This project was submitted to the Committee of Ethics in Research of Ceará Federal University, with an approval to be conducted, as described in the protocol 04/10. The demands of Resolution 466/2012, by the Brazilian National Health Council, were fulfilled. This resolution has the guidelines for researches involving human beings. The women who participated in this research, after being informed about the objectives of this study, signed a Free and Clear Consent Agreement.

## RESULTS

### *Characterization of participating women*

The age of women varied from 15 to 46 years old, with an average of  $27.17 \pm 6.3$  years old, thus concluding that the users of family planning services in basic care in the city of Fortaleza are in the beginning of their reproductive phase (teenagers in the beginning of their reproductive phase), and women starting the final stage of their reproductive life (after 35 years old).

**Table 1.** Distribution of the number of women using the family planning service at SUS, according to demographic and socioeconomic conditions. Fortaleza, Brazil, 2010

Variables (n=264)	Number	%
<b>Age (complete years) (27.17± 6.3)</b>		
From 15 to 19	31	11.8
From 20 to 28	139	52.7
From 29 to 35	62	23.5
From 36 to 46	32	12
<b>Marital Status</b>		
Fixed partner	222	84.1
Eventual partner	42	15.9
<b>Education</b>		
No education	1	0.4
Middle School	99	37.4
High School	159	59.5
College	7	2.7
<b>Family monthly income (in minimum wages *) (2.4 ±0.85)</b>		
No income	3	1.1
Below 1	40	15.2
1	95	36
More than 1; less than 3	112	42.4
More than 3	14	5.3

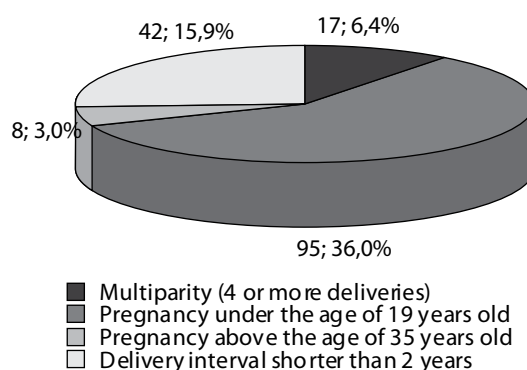
Source: Designed by the authors, 2013

\*Minimum wage - R\$ 510.00

The marital status with a fixed partner was mentioned by 222 (84.1%) of women. High school level was the predominant level of education among 159 (59.5%) of women. They lived with a monthly income average of 2.4 minimum wages (SD = ±0.85).

Chart 1 presents the avoidable reproductive risks that women in this study were exposed to. The amount of women that delivered during adolescence was 95 (36%) and those who were in advanced age to deliver totaled only eight (4%) of the sample. The frequency of women with records of four or more deliveries, which defines multiparity as a reproductive risk, corresponded to 17 (6%) subjects. A higher number, 42 (16%) was found for the amount of women with a delivery interval shorter than two years.

**Chart 1.** Distribution of the number of women, according to avoidable reproductive risks. Brazilian Unified Health System in Fortaleza, Brazil, Mar-Jun 2010



Source: Designed by the authors, 2013

## DISCUSSION

The profile of women researched was characterized by being mainly young, between 20 and 28 years old, which corresponded to 139 (52.7%).

The number of women whose age represented reproductive risk was 63 (23.8%), being 32 (12%) women above 35 years old and 21 (11.8%) adolescents. These women need a differentiated attention in family planning, due to their particular needs during adolescence and climacteric. Without an effective family planning care during these stages, pregnancy can occur at an age that represents reproductive risk.

For the women above 35 years old, the use of birth control methods (BCM) of elevated efficiency, such as hormonal treatment (oral and injectable), or intrauterine device (IUD) is recommended, both followed by a prescription from a health professional (physician or nurse). The combined hormonal treatment must be used under supervision after the age of 35 years old, as they contribute to the increase of blood pressure levels that may lead to worse side effects during this stage of life. If the woman is above 35 years old and is also a smoker

(above 15 cigarettes a day), she should not use combined hormonal birth control methods (oral or injectable), as they increase the risks of cardiovascular diseases, especially myocardial infarction, when compared to the non-smokers. Other studies also show an increase of myocardial infarction proportional to the number of cigarettes smoked per day<sup>(11)</sup>.

As a whole, adolescents can use any BCM as their age does not generate a clinical reason to have a side effect with the BCM, except for progestogen injections in women below 18 years old, once it is pointed out as being responsible for a higher level of osteoporosis during climacteric<sup>(11,12)</sup>. Social aspects and sexual behavior should also be considered when deciding the use of BCM during adolescence, such as a higher exposure and risk of Sexually Transmitted Diseases (STD), for example. Then, teenagers can choose any method, but in some cases there are methods that are more appropriate and that do not require daily, routine action. It was also seen that teenagers, married or not, are less tolerant of the secondary effects, and then they have high rates of discontinuity of the use of BCM<sup>(12)</sup>.

The choice of BCM during adolescence can also be influenced by the standards of sexual relationships of this age group, which are random, as well as by the necessity to hide sexual activity and the use of birth control pills. Teenagers experience physical, psychological and social transformations. Hence, health services, especially nursing, can provide a holistic health care by offering activities in education in health and counseling in the areas of sexual and reproductive health, rights and responsibilities of the adolescents. They can include their family in this educational process, aiming to assist these adolescents during their decision making processes individually and collectively<sup>(13)</sup>.

The monogamist status, which is presumed to be a part of stable relationships, is dominant

in Brazil and in this study. The investigation of the marital status is important inside the context of family planning, because topics of discussion with a shared decision, such as planning of the offspring, provoked abortions, and other aspects are more common in stable relationships, thus deserving a professional approach during consultations of family planning<sup>(9)</sup>.

In terms of education, the largest part of the female population in Brazil has between 9 to 11 years of schooling (36.9%)<sup>(8)</sup>, a result similar to what was found in this study. Education amplifies the capacity of learning and the adoption of healthy behavior. Hence, it is important that FHS teams that assist family planning identify teenagers and women with a deficit in education and then help them to go back to school<sup>(14)</sup>.

The family incomes found suggests that this is a group of a precarious socioeconomic condition, a common situation in the majority of the users of SUS and that they need to take this into consideration when making the decision about the number of children.

The less present reproductive risk factors in the group studied were pregnancies in women above the age of 35 years old and multiparity (more than four deliveries). Teenage pregnancy was the predominant risk factor, followed by the pregnancy interval shorter than two years. However, these are all avoidable factors, which must be the focus of the education in health programs towards family planning, so that the couples plan the pregnancies in all age groups that do not represent reproductive risk and that may have up to four deliveries, with intervals above two years, avoiding maternal and fetal complications.

The percentage of adolescents (36%) and women above the age to conceive (4%) adds up to a total of 103 (40%) individuals. In order to minimize the occurrence of this risk factor, governmental measures take place at federal,

state and municipal levels, such as the offering of a service that permits the free choice of BCM and that increases the access to information, to the means and to the techniques of family planning. The impacts of these measures have had favorable impacts on the fertility rate during the last decade. In 30 years, the Brazilian national average decreased by up to 1.8 children<sup>(8)</sup>.

Research performed in the Brazilian state of Ceará with users of family planning services found that 151 (66.8%) of the interviewees gave birth during adolescence, this being the most frequent pregnancy risk factor, which matches the results of this study<sup>(9)</sup>.

In many cases, the unplanned pregnancy is interrupted by an abortion, normally done in precarious hygienic and technical conditions, with a chance of leading to serious complications, which can also provoke maternal death. In this scenario, it is necessary that the nurse, during the nursing consultations, reinforces the importance of family planning, giving advice about the method chosen, sexual and reproductive health, showing methods, sending to medical consultations (when needed) and scheduling the next consultation<sup>(15)</sup>.

On the other hand, as they are avoidable with activities of promotion of health and primary prevention, these risks and other intervening possible factors must be investigated, such as low family income (an experience seen by the researchers), which is linked to the difficulties in housing, diet, education and health. Restrictions of this type have a negative influence on the quality of life of all members of the family. Hence, the conscious decision about having or not having children must be assisted by health professionals, who must generate a dialogue in an environment of trust, providing to the woman or to the couple enough support so they can evaluate the difficulties and find realistic ways to deal with the limitations of family planning<sup>(9)</sup>.

Multiparous women (who have had four or more deliveries) that had vaginal delivery have a higher probability of developing the more advanced stages of cervical cancer and to present a reduction of muscular movement of the pelvic floor, contributing to female urinary infection<sup>(16,17)</sup>.

A delivery interval shorter than two years can generate complications during peri- and post-natal periods, such as prematurity, low weight at birth and neonatal mortality<sup>(4,7)</sup>. In this study, 42 (15.9%) women got pregnant before the last child was two years old. In this condition, it is important that the family planning service providers investigate the context in which this pregnancy occurred, or in other words, if this short delivery interval was a pressing desire to get pregnant, or if it happened due to the lack of using or the incorrect use of BCM, or even if it was because of the lack of information that such a condition represents a reproductive risk. A pregnancy interval shorter than two years influences not only biological risks; it can generate family and social problems because of the expansion of the family in a short time, and sometimes without the financial, spatial and emotional support.

The findings of this study demonstrate the high prevalence of reproductive risks in assisted women in the family planning service. Despite that, the low prevalence of these factors is an important sign of the quality of family planning services. Thus, the importance of elaboration of education in health must be reinforced among managers and professionals of health, in order to create an environment of consciousness among women so they can assume the coresponsibility in reproductive decisions. Aware of the existing reproductive risks, they can consciously plan when to start having children, when to stop having them, the interval between them and how many children they want to have; reducing the risks to their health and that of the babies.

## CONCLUSION

Women of this study presented low levels of education and income, which can make them vulnerable to the discussed reproductive risks. These restrictions must be faced by health professionals that work in the FHS teams, which assist family planning, through continuous counseling in this area, in order to generate a conscious family decision which considers present socioeconomic limitations.

The reproductive risks found in the study's sample presented elevated prevalence, with a higher amount of teenage pregnancy (36%), followed by a delivery interval shorter than two years (15.9%), multiparity (more than four deliveries) (6.4%) and by pregnancies in women above 35 years old (3%). These factors are avoidable, which should be the focus of health education in family planning, in order to give couples the option of pregnancy planning without risks.

This study was done within a municipal context of a single metropolis of Brazil so the findings cannot be generalized, but can be used for data comparison with studies performed in other municipalities and services. Although for the findings of this study, it has a significant relevance as it determines the necessity to incorporate, and/or have a higher implementation of, the information regarding the prevention of reproductive risks in the actions of family planning. These should be offered in individual consultations of nurses and physicians, as well as in educational activities. Furthermore, it is the responsibility of health community agents to spread this information when performing home visitations; an aspect that should be previously planned and discussed with the whole body of professionals.

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**Received:** 28/02/2013

**Revised:** 14/10/2013

**Approved:** 22/10/2013