

PROFILE OF BRAZILIAN PREGNANT WOMEN WITH URINARY INCONTINENCE AND LOWER URINARY TRACT SYMPTOMS ATTENDED AT BASIC HEALTH UNITS

Hypothesis / aims of study

This study aimed to identify the profile of pregnant women with urinary incontinence (UI) attended at the basic health units in the city of Fortaleza/CE/Brazil, and the association of UI with other lower urinary tract symptoms (LUTS).

Study design, materials and methods

Quantitative study, cross-sectional, descriptive and exploratory, held on 29 basic health units that performed prenatal care, on all six Executive Regional General Offices in Fortaleza/CE. The simple random sampling formula was used, which resulted on 96 pregnant women, thus, 6 more women were included, and the total was 102 pregnant women. The participants had between 20 and 39 years old, one fetus and gestational age (GA) of 32 to 41 weeks. To be included on the study, the participants had to be registered on the Family Health Center of the Brazilian Public Health System, and present any type or intensity of UI on the last three months. The pregnancy must have been considered of low gestational risk factor, with only one fetus. The women could be of any skin color, social, economic or cultural level. There were excluded from the study women with multiple fetus, hypertension, collagen disease, *Diabetes Mellitus*, neurological and/or respiratory disease, history of spine and/or pelvic surgery (except caesarian), in use of parasympathomimetic drug or sympatholitic, and having any kind of impairment to communicate. Information was obtained in the *Prenatal Chart* and/or by previous history. Eight research assistants interviewed the pregnant women. An interview containing socialdemographic and obstetrics information was used to collect data. All participants signed a consent form. Data was collected between July and September of 2009, after the ethical approval for the study was obtained from a research ethical committee (by the report #264/2009). Data was coded and transferred to the Statistical Package for Social Services (SPSS) 13.0 version for Windows Software. Analysis was carried out on such a way that socialdemographic and obstetrics variables were summarized in absolute and relative frequencies, and the descriptive analysis meant to characterized the population of the study. The results were considered statically significant if $p \leq 0.05$.

Results

Mean age was 28.57 years (sd= 5.28); the amount of single and married women were the same; 48% completed high school; the majority were housewives. There were 4.75 residents/bathroom/house. Mean family income was 1.18 minimum salary. Women's skin color was categorized into white – 37.3% (n=38) – and non-white – 62.7% (n=64) – due to the fact that 44% of Brazilian's population is considered mulatto, expressing a multiracial society. Mean number of pregnancies was 2.67; 1.4 of births and 0.33 of abortion – the greater part were primiparous, without co-morbidities, sedentary, got pregnant without planning, and the mean GA was 34,8 weeks. The multiparous had two times more vaginal delivery than cesarean section, and positive association for episiotomy (88.9%). There was 44.4% of newborns with birth weight above 3500g. Most women were on the beginning of 3rd trimester (70.588%, n=72). The most significant correlations were between vaginal delivery with episiotomy and number of episiotomies ($p=0,001$). Although all women had UI, other urinary symptoms were described: *increased urinary frequency* (97.1%), *nocturia* (96.1%), *stress UI* (86%), *urgency* (85.3%), *urgency UI* (78.4%), *recurrent urinary tract infections* (70.6%), *bladder pain* (69.6%), *voiding symptoms* (59.8%), *coital incontinence* (57.8%) e *nocturnal enuresis* (55.9%). The study identified that many pregnant women believed UI was a *normal* event during pregnancy and did not know how to prevent it. When pregnancy was not previously planned, there was significant correlation to three urinary symptoms: nocturnal enuresis ($p=0.013$), intercourse leakage ($p=0.021$) and bladder pain ($p=0.033$). Single mothers presented more urgency incontinence ($p=0.053$). When the familiar income was < 2 minimum salaries, the LUTS affected were *nocturnal enuresis* ($p=0.024$) and *coital incontinence* ($p=0.018$). There was no statistical association concerning physical exercise practice, episiotomy and/or LUTS.

Interpretation of results

Most women participating on the study seemed surprised by the questions of the interview. They did not considered themselves *sick* (because of the UI), and did not know about a way of preventing or minimizing the effects of urinary loss. Some women showed lack of interest, because they supposed that UI was a *normal* fact during pregnancy and it should disappear after delivery – as some friends and family members have suggested. It was reported that health disadvantages happen primarily on groups socially vulnerable and have cumulative effects [1]. If this is true, a correct mapping, selection of sources and the data basis could be a solution for the study's problem. The use of a health technology – *Prenatal Chart* - should guarantee an adequate antenatal care; however it lacks some precious information about UI, challenging integrality and equity care. The study revealed that most women were on the beginning of 3rd trimester (70.588%, n=72) and by this time, a great part of antenatal health professionals have not asked about the occurrence of UI during pregnancy (89.2%). They also have not explained what women should do if they experienced UI (94.1%). It has been proved an increase on the occurrence of LUTS and in bladder's pressure as pregnancy progresses; meanwhile there is a decrease on urethral sphincter and an overweight of the pelvic floor. The two LUTS more prevalent were *frequency* and *nocturia*. They were even more prevalent than SUI and UUI. This study confirms the results of other studies [2, 3]. These symptoms could be explained by the physiological modifications on bladder pressure and volume, and by the stress pregnancy produces over the pelvic floor (and vaginal birth), which could increase the sensation of urinary loss (greater during pregnancy than on nuliparous pre-menopause women).

Concluding message

UI is a *silent* disease, however it is not contemplated as a public health goal in Brazil. Most women were non-white – 62.7%, during the beginning of 3rd trimester and were primiparous. The multiparous had two times more vaginal delivery than cesarean section, and positive association for episiotomy (88.9%). There was 44.4% of newborns with birth weight above 3500g. The

increased urinary frequency (97.1%) and nocturia (96.1%) were the two LUTS most cited. The study revealed that single pregnant women, white skin colored and whose pregnancy was not planned, showed direct correlation with some LUTS. The antenatal health professionals did not conduct properly the UI during pregnancy, probably because there is no place on the *Prenatal Chart* and a more specific direction on the *Antenatal and Puerperium Manual* promoted by the Health Government Administration. This fact justifies the necessity of an adequate hearing and humanized care by health professionals involved on the antenatal and after birth period.

References

1. MAGALHÃES R. (2007) Monitoramento das desigualdades sociais em saúde: significados e potencialidades das fontes de informação. *Ciência & Saúde Coletiva*, 12 (3):667-673.
2. DOLAN LM et al. (2004) A study of quality of life in primigravidae with urinary incontinence, *International Urogynecology Journal Pelvic Floor Dysfunction*, 15 (3):160-164.
3. CARDOZO LD, CUTNER A. (1997) Lower urinary tract symptoms in pregnancy. *British Journal of Urology*, 80(1):14-23.

<i>Specify source of funding or grant</i>	Cearense's Foundation for Supporting Scientific and Technological Development (FUNCAP)
<i>Is this a clinical trial?</i>	No
<i>What were the subjects in the study?</i>	HUMAN
<i>Was this study approved by an ethics committee?</i>	Yes
<i>Specify Name of Ethics Committee</i>	Research Ethical Committee from the University of Fortaleza (Brazil). Report #264/2009
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	Yes