Self-reported urinary incontinence in the postpartum period: clinical characteristics*

INCONTINÊNCIA URINÁRIA AUTORREFERIDA NO PÓS-PARTO: CARACTERÍSTICAS CLÍNICAS

INCONTINENCIA URINARIA AUTORREFERIDA EN EL POSPARTO: CARACTERÍSTICAS CLÍNICAS

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ABSTRACT

The objective of this cross-sectional study was to characterize the manifestations of self-reported urinary incontinence in the postpartum period. We interviewed 288 women who were clients of a teaching health center in São Paulo, between the months of January and August of 2009. The data showed that among the 71 incontinent women (24.6%), 44 (62%) reported stress urinary incontinence, 65 (91.5%) were aware of urine leakage, 33 women (46.5%) experienced urine loss more than once a week, and 24 (33.8%) reported persistent urinary incontinence at the time of interview. The severity classified as moderate urinary incontinence was identified in 53 women (74.7%). The findings highlight the importance of studies on urinary incontinence in the postpartum period, as well as approaching this issue in education and health care interventions with women in the reproductive stage.

DESCRIPTORS

Urinary incontinence
Postpartum period
Women's health
Obstetrical nursing

RESUMO

Este estudo transversal teve como objetivo caracterizar as manifestações de incontinência urinária autorreferida no pós-parto. Foram entrevistadas 288 mulheres atendidas em um Centro de Saúde Escola do município de São Paulo, entre janeiro e agosto de 2009. Os dados indicaram que, dentre as 71 mulheres incontinentes (24,6%), 44 destas (62%) referiram incontinência urinária aos esforços, 65 (91,5%) sentiam a urina escoar, 33 mulheres (46,5%) apresentavam perdas por mais de uma vez na semana e 24 (33,8%) acusaram perda urinária persistente no momento da entrevista. A gravidade, classificada como incontinência urinária moderada, foi constatada em 53 mulheres (74,7%). Os achados realçam a importância de investigações sobre incontinência urinária no período pós-parto, assim como sua abordagem no ensino e na assistência à mulher no período reprodutivo.

DESCRITORES

Incontinência urinária
Período pós-parto
Saúde da mulher
Enfermagem obstétrica

RESUMEN

Este estudio transversal tuvo como objetivo caracterizar las manifestaciones de incontinencia urinaria autorreferida en el posparto. Fueron entrevistadas 288 mujeres atendidas en un Centro de Salud Escuela del municipio de São Paulo, entre enero y agosto de 2009. Los datos demostraron que de las 71 mujeres con incontinencia (24,6%). 44 de ellas (62%) refirieron incontinencia ante los esfuerzos, 65 (91,5%) sentían el escurrimiento de la orina, 33 mujeres (46,5%) presentaban pérdidas más de una vez a la semana, y 24 (33,8%) refirieron perdida urinaria persistente en el momento de la entrevista. La gravedad, clasificada como incontinencia urinaria moderada, se constató en 53 mujeres (74,7%). Los hallazgos realzan la importancia de investigaciones sobre incontinencia urinaria en el período de posparto, así como su abordaje en la enseñanza y atención a la mujer en el período reproductivo.

DESCRIPTORES

Incontinencia urinaria
Periodo posparto
Salud de la mujer
Enfermería obstétrica

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INTRODUCTION

Female Urinary Incontinence (UI) is considered a hygiene and social issue. In 2005, the International Continence Society (ICS) updated the terminologies and definitions of the lower urinary tract, considering UI as any involuntary urine loss. The ICS also classified UI as follows: *stress UI* - urine loss while engaging in some form of physical effort, such as jumping, coughing, sneezing; *urge UI* - urine loss preceded by an urge to urinate; and *mixed UI* - urine loss in both the referred situations[1].

Studies have demonstrated that stress UI affects around half the incontinent women, followed by mixed UI and urge UI[2-3]. Research states that pregnancy and childbirth increase the frequency of UI[4]. Although UI have negative effects on women's everyday lives, affecting their quality of life, most incontinent women consider it to be something normal and do not seek medical help[4-6].

A study performed in São Paulo, in 1999, with 400 men and women, living in the city, showed the participants had poor knowledge regarding UI; made individual attempts to adjust their lifestyle to the urine losses; had negative attitudes towards making a decision to seek treatment for incontinence, and to not disclose about their incontinence to the physician or other healthcare professional. The authors reported that the attempts to minimize UI effects could compromise one's social and leisure activities, thus, affecting their quality of life[7].

The causes for incontinence include bladder abnormalities, neurologic diseases, and alterations of the pelvic muscle strength. This common sign can be transitory or permanent and involves from large volumes of urine to minimal dripping[8]. In general, in epidemiological investigations, the type of incontinence is defined by urinary symptoms reports[2] and, according to the Brazilian Urology Society, urinary incontinence anamnesis should include aspects related to the onset of symptoms, as well as their frequency and severity, and their impact on quality of life [9].

Female UI prevalence rates can vary according to the characteristics of the population and the methodology used in each study. The present study addressed UI in the postpartum period, as there is scarce national literature regarding this morbidity in this phase of the pregnancy-puerperium cycle. In literature, studies state that urinary incontinence affect up to 74% of the formerly continent pregnant women[10-12]. Considering a population of age between 17 and 45 years, studies show UI prevalence in the postpartum between 20% and 27.5%[10,12-15].

The frequency of urine loss, the women's age, high weight, pregnancy, parity, type of childbirth, the use of vacuum extraction and forceps, as well as the situation of the perineum, and the newborn's high birthweight are considered triggering factors for UI in the postpartum [13,16-17]. Studies performed in Denmark and Spain[4,10] found a high association rate between UI in the postpartum and the type of childbirth and with the occurrence of UI during pregnancy. Similarly, a United States study[11] performed with 80 pregnant women with UI found that 44% of the participants continued incontinent after childbirth.

Despite the high incidence of UI during pregnancy, most cases are transitory and disappear within the postpartum period. On the other hand, when UI appears in this involution phase, its symptoms can cause biopsychosocial alterations in the patient, thus, it becomes an important aspect that should be considered in health care, as well as in teaching and research.

This study is part of a broader research, and was developed to add knowledge to the UI field of study and to improve obstetrical nursing care regarding the prevention and treatment of this morbidity in the postpartum period. The objective of this study was to characterize the manifestations of involuntary urine loss during the postpartum period among women treated at a healthcare service.

Studies performed in Denmark and Spain(4,10) found a high association rate between UI in the postpartum and the type of childbirth and with the occurrence of UI during pregnancy.

METHOD

This exploratory study was performed using a cross-sectional data collection, conducted between January and August of 2009. The population consisted of women in the postpartum period (from 30 days to six months), undergoing treatment at the pediatrics outpatient clinic at Centro de Saúde Escola Samuel Barsley Pessoa (CSEB), a teaching health center located on the west side of São Paulo, Brazil, and connected to the Faculty of Medicine at University of São Paulo. Since 1977, the CSEB has contributed with the development of primary health care practice in Brazil, mainly through activities of training and education and research at the service. This location was chosen because it offers the chance to be in touch with women who were within six months of the postpartum period. The decision for conducting the interview between 30 days and six months postpartum was based on the fact that literature studies have been performed considering periods within this time interval[10-11].

It should be highlighted that we did not find any national studies regarding the prevalence of this morbidity in the postpartum period, hence our motivation to outline the sample size based on the results of the Denmark study[9], which involved 376 multiparae and primiparae after six months postpartum, which identified a 23.4% prevalence of urinary incontinence. This finding was used to estimate the sample size, admitting a 5% error with 95% confidence level and considering a Student-t distribution.

The sample consisted of 288 women who attended the CSEB for treatment/appointment with the pediatrician, and met the following inclusion criteria: be between 30 days and six months of the postpartum period; 18 years of age or older, because minors could have attended the health center without their guardians to authorize their participation in the study; have no cognitive difficulty that could affect their understanding; and agree to participate in the study.

The data were obtained through interviews and by completing a form created based on literature and on the experience of the authors, which was structured with open and complementary open questions, including the participant's identification, gynecologic and obstetrical data, as well as information about the occurrence, characterization, and the time (before and/or during pregnancy; and/or after childbirth) of urine loss. It was also verified if the reported incontinence was transitory, or if the interviewee still presented the symptom at the time of the interview.

It should be added that a pretest was performed to verify the clarity of the questions on the instrument and to evaluate if they achieved the proposed objective. After the pretest, the instrument suffered no alterations. A pilot study was also performed with 50 women, which, after the statistical analysis, confirmed the previously established sample size[18].

The women were interviewed at the CSEB ambulatory, in a private room, while they waited for their nursing and/or pediatrician appointment. The researcher introduced herself to the women and explained the objectives and purpose of the study. Upon the women's agreement to participate, the Free and Informed Consent Form was presented.

The obtained data were stored on a databank, through double entry, using Epi-Info software version 2000. Next, the data were exported to an *Excel* spreadsheet. The differences between the categorical variables corresponding to the two groups – with and without reported incontinence-, was performed using the Chi-Square test, and Monte Carlo Simulation was used for the data with expected frequencies was below five.

The symptoms of involuntary urine loss, reported by the participants, were classified according to the aforementioned definitions of the International Continence Society[1]. It should be added that the severity of the episodes was classified according to the Sandvik index[19]. The calculation is obtained by multiplying the frequency of the urine losses (1 = less than once a month; 2 = once or twice a month; 3 = one or several times a week; 4 = every day and/or night) by the amount of urine loss each time (1 = drops; 2 = small amount; 3 = large amount). According to the resulting index (1 to 12), incontinence is classified into mild (1 to 2), moderate (3 to 6), severe (8 to 9) or very severe (12).

In compliance with the determinations of the National Health Council Resolution 196/96, the study was approved by the Research Ethics Committee at University of São Paulo School of Nursing (CEP-EEUSP) under the number 761/2008. The board of directors at CSEB authorized the study and the authors complied with their requisition to forward women with self-reported incontinence to treatment.

RESULTS

Table 1 lists the sociodemographic data of the sample.

Table 1 – Sociodemographic characteristics of the women, with and without urinary incontinence - São Paulo, 2009

Variables	with UI n (%)	without UI n (%)	Total n (%)	p-value
Age (years)				
< 20	15 (21.1)	34 (15.7)	49 (17.0)	
21-26	20 (28.2)	84 (38.7)	104 (36.2)	0.5782‡
27-32	20 (28.2)	57 (26.3)	77 (26.7)	
33-38	12 (16.9)	31 (14.3)	43 (14.9)	
39-45	4 (5.6)	11 (5.0)	15 (5.2)	
Color				
White	37 (52.2)	88 (40.6)	125 (43.4)	**0.0043**†
Black	16 (22.2)	58 (26.7)	74 (25.7)	
Brown	14 (19.7)	70 (32.2)	84 (29.2)	
Yellow	4 (5.6)	1 (0.5)	5 (1.7)	
Education				
Illiterate	-	1 (0.5)	1 (0.3)	
Incomplete primary education	7 (9.9)	51 (23.5)	58 (20.1)	
Complete primary education	9 (12.7)	27 (12.4)	36 (12.5)	
Incomplete secondary education	13 (18.3)	29 (13.4)	42 (14.6)	0.2379‡
Complete secondary education	31 (43.6)	85 (39.2)	116 (40.3)	
Incomplete higher education	6 (8.5)	10 (4.6)	16 (5.6)	
Complete higher education	5 (7.0)	14 (6.4)	19 (6.6)	
Occupation				
Employed	30 (42.3)	111 (51.2)	141 (49.0)	0.1929†
Unemployed	41 (57.7)	106 (48.8)	147 (51.0)	
Physical activity				
Active	9 (12.7)	23 (10.6)	32 (11.1)	0.6288†
Sedentary	62 (87.3)	194 (89.4)	256 (88.9)	
Total	71(100)	217(100)	288(100)	

† Chi-square test; ‡ Chi-square test by Monte Carlo simulation.
Source: Lopes DBM, Praça NS[5]

Table 1 shows that, among the 288 participants, 43.4% were self-declared white, and 49% were employed, being engaged in activities pertinent to the domestic environment and care, for instance: housekeeper, janitor, artisan, nanny, and hairstylist. Only 11.1% referred practicing some physical activity at least three times a week, such as walking and/or attending workout classes at a gym, among other exercises. Among the sociodemographic

characteristics, only skin color showed a statistically significant difference between the continent and incontinent women groups. It was also observed that 71 (24.6%) participants reported experiencing involuntary urine loss during the postpartum period.

The next table (Table 2) lists the data regarding the characteristics of the involuntary urine loss among primiparae and non-primiparae.

Table 2 – Characteristics of the self-reported UI, according to parity - São Paulo, 2009

Variables / Categories	Primipara N (%)	Non-Primipara N (%)	Total N (%)	p-value
Occurrence				
Pregnancy and postpartum	16 (42.1)	20 (60.6)	36 (50.7)	0.1199†
Postpartum	22 (57.9)	13 (29.4)	35 (49.3)	
Frequency				
At least once a day	1 (2.6)	-	1 (1.4)	0.8023‡
More than once a day	9 (23.7)	8 (24.3)	17 (23.9)	
More than once a week	16 (42.1)	17 (51.5)	33 (46.5)	
More than once a month	4 (10.5)	4 (12.1)	8 (11.3)	
One single loss	8 (21.1)	4 (12.1)	12 (16.9)	
Frequency				
In drops	24 (63.2)	15 (45.5)	39 (54.9)	0.1628‡
Squirts	11 (28.9)	17 (51.5)	28 (39.4)	
Runs down the leg	3 (7.9)	1 (3.0)	4 (5.6)	
Characteristics of the loss				
Feels leaking	36 (94.7)	29 (87.9)	65 (91.5)	0.4060‡
Wet clothes	2 (5.3)	4 (12.1)	6 (8.5)	
Type of UI				
Stress	20 (52.7)	24 (72.7)	44 (62.0)	0.0962†
Urge	11 (28.9)	3 (9.1)	14 (19.7)	
Mixed	7 (18.4)	6 (18.2)	13 (18.3)	
Total	**38 (100)**	**33 (100)**	**71 (100)**	

† Chi-square test; ‡ Chi-square by Monte Carlo simulation

In Table 2 it is observed there was a higher frequency of primiparae with incontinence, mostly in the postpartum period (57.9%); for 63.2%, the urine loss was in the form of drops, 94.7% felt the urine run, and 28.9% reported urge UI, whereas 72.7% of non-primiparae reported stress UI, 51.5% stated their urine loss was in squirts; the same percentage reported experiencing urine loss more than once a week, and 60.6% also reported experiencing losses during pregnancy. Stress UI was the most frequent (62%), as well as losing urine in the form of drops (54.9%), and experiencing urine loss more than once a week (46.5%).

It should be highlighted that 29 women (40.8%) who experienced UI in the postpartum period were among the 93 (32.3%) subjected to episiotomy in the latter childbirth, and 24 women (33.8%) reported experiencing urine loss in the time of the interview. It was also found that most women experienced UI between one and three months into the postpartum period (44.7%), and 28.2% (20 out of 71) of the women reported they felt that the urine loss affected their daily life.

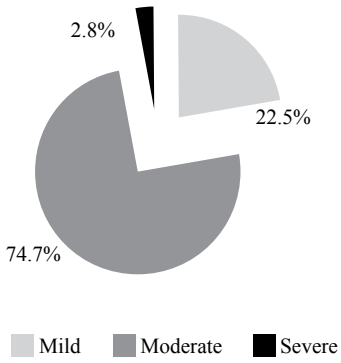

Figure 1 – Severity of involuntary urine loss in the postpartum - São Paulo, 2009

Figure 1 shows that moderate incontinence predominated.

DISCUSSION

This study is part of a broader research, and was conducted with the objective to characterize the manifestations of involuntary urine loss in the postpartum period. The results showed that the percentage of women who claimed experiencing urinary incontinence, during the postpartum period, was higher compared to the studies conducted in Denmark (23.4%)[10], Italy (20.3%)[13] and Turkey (19.5%)[20].

Despite the fact that no statistically significant differences were found, the present study showed a slight predominance of UI among the primiparae, which disagrees with other studies performed in Brazil[14-15,21] and in Europe[13], which found that UI was more common among multiparae women. A study performed in Norway[3], with 4,662 primiparae and 3,549 multiparae, found that parity is a strong risk factor for UI during pregnancy and that the UI prevalence is greater among women who have experienced childbirth. Similar data were found in other European studies[10,13], which pointed at parity as a determinant risk factor for UI in the postpartum period.

In this study, it was verified that stress UI was the most frequent, followed by urge and mixed UI. Studies performed in the United Stated[11] and Europe[3-4,13], which used the same classification[19], showed similar data regarding the predominance of the type of UI. It was observed in these studies, that stress UI was the most common situation associated to the increased occurrence of UI in pregnancy and in the postpartum period.

It should also be highlighted that, in this study, most incontinent women reported experiencing moderate urine loss. This finding agrees with a study performed in Spain[4], which also showed that moderate incontinence prevailed. This study opposes the results of the United States study[11], which found that 64% of the women re-

ported mild incontinence, 24% moderate, and 4% severe. A study performed in France[12] found similar data: 19.3 % of the women reported mild incontinence, 7.3% moderate, and 3% severe.

Another interesting data was related to the situation of the perineum after childbirth. The National Children's and Women's Demographic and Health Survey, performed in Brazil, in 2006, with about 15,000 women, showed there is a high frequency rate for episiotomy (71.6%) in Brazil, particularly in the southeast (80.3%), middle-west (78.8%) and south (78.5%) regions, thus revealing the common use of this practice in the country[22]. Comparing this data with those of the present study, it is observed that 32.3% of the participants were subjected to episiotomy, of which 40.8% (29 out of 93) reported UI in the postpartum period.

The relationship between episiotomy and UI in the postpartum period, found in the present study, is supported by a study that showed that this procedure does not protect women in this specific period[23]. The same situation was found in another study, performed in Europe[4], in 2008, which found a significant association between episiotomy and UI.

The UI literature, considering the postpartum period, besides being scarce, presents contradictory findings, which suggests the need for more studies on this theme and considering this specific population.

This study, despite the lack of statistical significance, found a high percentage of incontinent women (primiparae and non-primiparae), which reported daily or weekly urine loss. These results agree with a study performed in Campinas, SP[6], in which 57.1% of the participants reported urine loss, and 28.6% considered it affected their activities of daily living.

The present study results showed that stress and moderate UI were the most common symptoms in the studied sample, and that urge UI, as well as single urine losses, or in drops were the most common among the primiparae. It should be emphasized that the present study findings do not show statistical significance, with the exception of skin color, which indicated the need for further studies about this morbidity in Brazil, considering the postpartum period, with the purpose to confirm, or not, these findings.

The results also showed that, in terms of the relationships between UI and the pregnancy-puerperium cycle, young women cannot be disregarded, and the primiparity condition must be valued, besides considering the fact that this morbidity can appear in the postpartum period, including when it did not occur during the pregnancy.

One limitation of the present study is the fact that broader statistical tests, such as logistic regression, were not performed. This analysis should be included in further studies on the theme, considering the postpartum period, as it will increase the array of results related to the risk factors pertinent to UI related to the pregnancy-puerperium period.

CONCLUSION

This study, performed with women in the postpartum period, permitted to conclude that the prevalence of UI in this period is 24.6% in a sample of 288 women; the highest rates of urine loss occur between the first and third month in the postpartum; stress and moderate incontinence predominated; and UI affects women's everyday life. Only skin color was associated with the morbidity in the postpartum period.

The findings reinforce the importance of nursing professionals to verify the occurrence of urine loss and identify its characteristics, the time of the symptoms onset, the severity, and the impact on the women's everyday life, in addition to identifying the factors associated to the UI and its occurrence in the postpartum period, with the purpose to obtain a comprehensive view of the natural and individual history of the morbidity, and promote interventions for the prevention and treatment of the symptoms to minimize the discomfort caused by involuntary urine loss in the postpartum period.

In view of the findings, there is a need for further studies regarding urinary incontinence in the postpartum period, considering the scarcity of national studies on this complication, particularly considering the population in the pregnancy-puerperium cycle.

The characterization of the manifestations and effects of UI in the everyday lives of women, as well as the identification of the risk factors of this morbidity will help to improve the care provided in the postpartum period. Furthermore, this morbidity should be evaluated in the form of clinical studies, whose results could contribute with the practice and teaching of obstetrics and obstetrical nursing in particular.

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