Journal of Nursing
Revista de Enfermagem
UFPE On Line
ISSN: 1981-8963

ORIGINAL ARTICLE

URINARY INCONTINENCE: AN ANALYSIS IN THE PERSPECTIVE OF AGING POLICIES

INCONTINÊNCIA URINÁRIA: UMA ANÁLISE À LUZ DAS POLÍTICAS DE ENVELHECIMENTO

INCONTINENCIA URINARIA: UN ANÁLISIS A LA LUZ DE LAS POLÍTICAS DE ENVEJECIMIENTO

Nathália Alvarenga-Martins[1], Paulo Ferreira Pinto[2], Cristina Arreguy-Sena[3], Heloísa Campos Paschoalin[4], Denise Cristina Alves de Moura[5], Camila Vasconcelos Teixeira[6]

ABSTRACT

Objective: to analyze the incidence of Urinary Incontinence (UI) among people aged ≥65 years in the perspective of active aging policies. ***Method:*** survey-descriptive, quantitative-based study. Participants were recruited from home visits. The instrument of data collection was composed of the personal determinants of the aging process and International Consultation on Incontinence Questionnaire scale (ICIQ-SF). The data was treated by descriptive analysis and correlation tests. ***Results:*** the 110 subjects investigated, were mostly, women (62.7%), had a mean age of 73 and less than seven years of education(88.2%). Loss of urine was reported in 41 (37.8%) of the participants, and urinary incontinence (73.5%) was more frequent. ***Conclusion:*** high UI rates confirm the risk for fragility that compromises the active aging process, and it is necessary to re-scale local policies, programs and actions to address Urinary Incontinence. ***Descriptors*:** Urinary Incontinence; Aging; Nursing.

RESUMO

Objetivo: analisar a incidência de Incontinência Urinária (IU) entre pessoas com idade ≥65 anos à luz das políticas do envelhecimento ativo. ***Método*:** estudo *survey*-descritivo, de abordagem quantitativa. Os participantes foram recrutados a partir de visita domiciliar. O instrumento de coleta de dados foi composto pelos determinantes pessoais do processo de envelhecimento e escala *International Consultation on Incontinence Questionnaire* (ICIQ-SF). Os dados foram tratados por análise descritiva e testes de correlação. ***Resultados:*** os 110 sujeitos investigados eram em sua maioria mulheres (62,7%), tinham idade média 73 e menos de 7 anos de estudo (88,2%). A perda de urina foi relatada em 41 (37,8%) dos participantes e sendo mais recorrente a Incontinência Urinária de urgência (73,5%). ***Conclusão*:** os altos índices de IU confirmam o risco para fragilidade que compromete o processo de envelhecimento ativo sendo necessário redimensionamento de políticas, programas e ações locais para abordagem da Incontinência Urinária. ***Descritores*:** Incontinência Urinária; Envelhecimento; Enfermagem.

RESUMEN

Objetivo: analizar la incidencia de la Incontinencia Urinaria (IU) entre las personas ≥ de 65 años teniendo en cuenta las políticas de envejecimiento activo. ***Método:*** estudio *survey*-descriptivo, de enfoque cuantitativo. Los participantes fueron reclutados a partir de visita domiciliaria. El instrumento de recogida de datos fue compuesto de los determinantes personales del proceso de envejecimiento y escala *International Consultation on Incontinence Questionnaire* (ICIQ-SF). Los datos fueron tratados por análisis descriptivas y testes de correlación. ***Resultados:*** los 110 sujetos investigados eran, en su mayoría mujeres (62,7%), tenían edad promedio 73 y menos de siete años de estudio (88,2%). La pérdida de orina se reportó en 41 (37.8%) de los participantes, y de más frecuencia la Incontinencia Urinaria de urgencia (73,5%). ***Conclusión:*** los altos indices de IU confirman el riesgo de la fragilidad que compromete el proceso de envejecimiento activo, siendo necesario redimensionamiento de políticas, programas y acciones locales para el abordaje de la incontinencia urinaria. ***Descriptores*:** Incontinencia Urinaria; Envejecimento; Enfermería.

[1]Nurse, Master Professor, Faculty of Nursing, Federal University of Juiz de Fora/UFJF. Juiz de Fora (MG), Brazil. E-mail: nath.alvarenga.martins@gmail.com; [2]PhD, Professor of Physical Education, School of Physical Education, Federal University of Juiz de Fora, Juiz de Fora (MG), Brazil. E-mail: pauloferpinto@gmail.com; [3,4]Nurse, PhD, Professors, Faculty of Nursing, Federal University of Juiz de Fora/UFJF. Juiz de Fora (MG), Brazil. E-mails: cristina.arreguy@ufjf.edu.br; hcpaschoalin@gmail.com; [5]Nurse, Master Professor, Doctorate student, School of Nursing, Federal University of Juiz de Fora/UFJF. Juiz de Fora (MG), Brasil. E-mail: denisematipo@yahoo.com.br; [6]Nurse, School of Nursing, Federal University of Juiz de Fora/UFJF. Juiz de Fora (MG), Brazil. E-mail: camilavasconcelosteixeira@gmail.com

INTRODUCTION

The demographic and epidemiological transition of the last decades has transformed the Brazilian reality in relation to life expectancy and the increase in the incidence and prevalence of chronic degenerative diseases in detriment of infectious diseases.[1] In this reality, the need to develop political and health actions aimed at prevention and control of the aggravations common to the aging process with a focus on optimizing health opportunities, social participation and safety, which is the triad of sustaining the policy of "active aging." [2]

There are manifestations of muscular deterioration, characteristic of aging, that trigger a reduction in the functional capacity of the elderly person, resulting in loss of muscle mass and strength.[3-4] As a result of this muscular weakening, there is a reduction of physical mobility and Urinary Incontinence (UI).[3,5] This is defined as a "complaint of any involuntary loss of urine."[6] It is estimated that 30% to 50% of the elderly present some type of incontinence, with a higher prevalence among women and increasing the risk of its occurrence in each year of aging.[7-8] urinary incontinence (UI) is an alarm signal for the occurrence of fragility and is a factor of reducing the autonomy of the elderly.[8]

The concept of fragility, in the context of the elderly, implies a greater risk of incapacities, institutionalization, hospitalization and death, and the health team will have to screen people aged ≥ 60 years for the indicators of risk of fragility, among which are the UI.[8-9]

Although it is not considered an aging morbidity, UI is more prevalent among the elderly and, although it has high frequency and functional repercussion, it is the most neglected complaint in the usual clinical examination of the health team.[5,7] Because of this, the Pan-American Health Organization (PAHO) focuses on urinary incontinence as a morbidity that should be promptly recognized in order to proceed, in a timely manner, to plan actions that reduce the risk of frailty in the elderly.[8]

There are a variety of nomenclatures to mention types of urinary incontinence. The *International Continence Society* (ICS), has adopted the concept of stress incontinence, urge incontinence, enuresis, nocturia, total urinary incontinence, and post-void urinary loss.[6] This investigation focused on three of them: effort, urgency and mixed, because they are the most prevalent among the elderly.[7,10]

The nurse is inserted into the UI approach both autonomously, and as part of the health team, developing research, prevention and rehabilitation actions aimed at reducing the risks of functional decline and possibilities for guarantees of active aging.[9,11]

In view of the above, this research had the objective of analyzing the incidence of Urinary Incontinence (UI) among people aged ≥65 years in the perspective of active aging policies, and is justified by: 1) demographic transition period to show a tendency in the increase of people aged 60 years old or more for which the incidence of UI tends to increase with the years of life; 2) by the evidence that aging is procedural and that health promotion and prevention approaches should be carried out in an integrated way with the life cycle and with the public policies discussed and 3) by the data present a situational diagnosis capable of instrumentalizing managers in formulating intervention plans that include the UI theme and that are consistent with local reality.

METHOD

Manuscript extracted from the Dissertation "Elderly people and urinary incontinence: trajectory of the proposal of a systematization model of specialized nursing care", presented in 2014 to the Stricto Sensu Postgraduate Program Master's Degree in Nursing, School of Nursing, Federal University of Juiz de Fora (UFJF), Minas Gerais, Brazil.

A survey-descriptive study was carried out and three investigative hypotheses and their respective null hypotheses were foreseen: H1- the incidence of UI is less than 30% among people with 65 years of age with low education and low income; H2- The most prevalent type of UTI is SUI and H3- The use of antihypertensive drugs is related to the occurrence of UI.

A survey carried out in a city in the interior of the State of Minas Gerais, whose rates of people aged ≥65 years are higher than the national average.[12] The scenario chosen was composed of the six micro areas that make up the priority coverage of the Primary Health Care Unit (PHCU) that integrate three distinct neighborhoods and whose model of assistance was the traditional one.

Full selection sample. Data was collected from October 2013 to January 2014. Participants were recruited from a home visit of the PHCU health team, and two meetings were required: the first one for presentation and return scheduling, and the second for the data collection itself and signing of the Informed Consent Term (ICT).

It should be mentioned that, as in Brazil, the classification of the elderly is determined from the age of 60 years, in this investigation it was decided to approach people aged ≥65 years, in order to capture the UI in the ongoing aging process.[13-5]

Eligibility criteria were: 1) people of both genders; 2) aged ≥65 years; 3) without educational level, racial or ethnic distinction; 4) users of the Unified Health System (UHS) in the coverage area where the data was collected; 5) who received evaluation through the mini mental health state exam (MMSE) ≥24 if they had more than four years of schooling or ≤17 if they had up to four years of schooling8 and 6) who agreed to participate as unpaid volunteers, expressing their acquiescence through the signing of the ICT and post-informed.

Exclusion criteria were considered by potential participants who: 1) did not meet the eligibility criteria; 2) were not found at home after three visits on different days and times; 3) were hospitalized, institutionalized or traveling during the period of data collection and 4) had a diagnosis of Alzheimer's in the intermediate to advanced stage, according to the classification of the Brazilian Society of Neurology.[8]

Of the 132 residents aged ≥65 years registered in the six micro areas surveyed, 22 did not make up the population due to: refusals (9); death (2); reduced hearing acuity (2); change of address (2); were not found (4) and obtained an altered MMSE score (3).

A questionnaire elaborated in accordance with the theoretical-conceptual framework established for the aging process was used. The specificity of the urinary incontinence approach was inserted from theoretical and epidemiological references that explained the risks and vulnerabilities to the occurrence of incontinence among the elderly. The *International Consultation on Incontinence Questionnaire* (ICIQ-SF) was used,[16] validated, in the Brazilian reality, to measure the incidence of urinary incontinence and its impact.

Data collection instrument composed of: personal determinants of the aging process and ICIQ-SF scale to measure the incidence of urinary incontinence and its impact on activities of daily living. A pilot study was conducted with ten elderly people living in a similar region who were excluded from the final version.

Consolidated data in a spreadsheet of the *Statistical Package for Social Sciences*, version 22, and treated by descriptive analysis and correlation tests.

In compliance with all ethical and legal research recommendations involving human beings, in accordance with Brazilian legislation, the project being approved by the Research Ethics Committee, Protocol 341.116.

RESULTS

110 people aged 65 years and over, 69 (62.7%) women; mean age of 73 years (variability 65 to 96 years and standard deviation 6.232); 54 (49.1%) were married and 56 (53.9%) lived without a partner.In relation to schooling, the average was 3.5 years of study, the median was 3.0, the fashion 0 (zero), with a variation from 0 (zero) to 16 years of study, with a standard deviation of 6, 76.Of the 110 participants, 72 (65.5%) were retired and were engaged in low-paid activities, such as domestic maids (30.9%); (19.9%) and general services (13.6%) or were restricted to activities in the home (13.6%).

♦ Risk situations for urinary incontinence

Among the male participants, 12 (10.9%) of them underwent prostate surgery (prostatectomy) and, 21 (19.1%) of them underwent some form of gynecological surgery, except the cesarean section.

Among the female participants, 30 (27.3%) of them were nulliparous, 36 (32.7%) had one to six children and 26 (23.5%) had seven to 20 children. Regarding the type of delivery, 59 (53.6%) had vaginal delivery and, of these, two required forceps.

Of the participants surveyed, 96 (87.3%) reported having a diagnosed disease.

Table 1. Distribution of the 110 participants according to the type of diagnosed disease they have. Juiz de Fora (MG), Brazil, 2016.

Typo of disease	n	%	Type of disease	n	%
Genitourinary			Metabolic		
Yes	1	.9	Yes	32	29.1
no	107	97.3	no	76	69.1
not applicable	2	1.8	not applicable	2	1.8
Total	110	100	Total	110	100
Respiratory			Neoplastic		
Yes	8	7.3	Yes	1	.9
no	100	90.9	no	107	97.3
not applicable	2	1.8	not applicable	2	1.8
Total	110	100	Total	110	100
Cardiovascular			Osteoarticular		
Yes	84	76.4	Yes	16	14.5
no	24	21.8	no	92	83.6
not applicable	2	1.8	not applicable	2	1.8
Total	110	100	Total	110	100
Psychosomatic			Parasitic Infection		
Yes	3	2.7	Yes	1	.9
no	105	95.5	no	107	97.3
did not answer	1	.9	not applicable	2	1.8
not applicable	1	.9			
Total	110	100	Total	110	100

In the last 30 days, from the interview date, 95 (86.4%) of the 110 interviewees used some medication. Table 2, shows the type of medications used by the 110 participants.

Table 2. Distribution of the 110 participants according to medications in use in the last 30 days of the interview date. Juiz de Fora (MG), Brazil, 2016.

Medication class	n*	%	Medication class	n*	%
Antihypertensive			Bronchodilator		
not applicable	8	7.3	not applicable	8	7.3
Yes	77	70.0	Yes	2	1.8
no	25	22.7	no	100	90.9
Total	110	100	Total	110	100
Diuretic			Oral hypoglycemic or insulin		
not applicable	8	7.3	not applicable	8	7.3
Yes	31	28.2	Yes	27	24.5
no	71	64.5	no	75	68.2
Total	110	100	Total	110	100
Vasodilator			Calcium		
not applicable	8	7.3	not applicable	8	7.3
Yes	2	1.8	Yes	5	4.5
no	100	90.9	no	97	88.2
Total	110	100	Total	110	100
Antibiotic			Anti-inflammatory		
not applicable	9	8.2	not applicable	8	7.3
Yes	3	2.7	Yes	12	10.9
no	98	89.1	no	90	81.8
Total	110	100	Total	110	100
Hormone			Antidepressant		
not applicable	8	7.3	not applicable	8	7.3
Yes	1	.9	Yes	12	10.9
no	101	91.8	no	90	81.8
Total	110	100	Total	110	100

Among the participants, 24 (21.8%) were active smokers and 14 (12.7%) consumed some type of alcoholic beverage, and, of these, six (5.5%) did daily.

Application of the ICIQ-SF scale

The incidence, type of urinary incontinence and their interference in daily life are shown in Table 3.

Table 3. Distribution of the incidence of urinary incontinence and impact on daily life among the 110 participants according to the ICIQ-SF scale. Juiz de Fora (MG), Brazil, 2016.

Characteristic	Categories		n	%
Type of urinary incontinence *	IU ** effort		7	
	Urgency UI		33	
	Mixed UI		6	
Frequency that loses urine	1x / week or less		19	46,3
	2 or 3 times a week		8	19,5
	Once a day		5	12,2
	Several times a day		9	22
	Total		41	100
Estimated amount of urine loss	Little		29	70,7
	Moderate		10	24,4
	Big		2	5
		Total	41	100
Interference in daily life	Level of Interference	0	15	36,6
		1I---3	1	2,,4
		3I----6	9	22
		6I----9	12	29,3
		10	4	9,7
		Total	41	100
Occasion when you lose urine *	Before you get to the bathroom		33	73,5
	Cough or sneeze		7	15,5
	Sleeping		4	8,8
	Physical activity		-	
	I finished urinating and I'm getting dressed		1	2,2
	Total		45	100

* There may be more than one option not totaling 100%; ** IU- Urinary incontinence.

From the measurement of the incidence of urinary incontinence, it was possible to discern associations with some risk factors (morbidities, medications, procedures / treatments) (Table 4).

Table 4. Distribution of the association between intervening variables and the occurrence of urinary incontinence in the 110 participants. Juiz de Fora (MG), Brazil, 2016.

	IU		S/ IU		
Variables	n	%	n	%	*p*
HAS					
Gift	34	82.9	50	72.5	0.32
Absent	7	17.1	17	24.6	
DM					
Gift	13	31.7	19	27.5	0.51
Absent	28	68.3	48	69.6	
Gynecological Surgery					
Gift	4	9.8	17	24.6	0.44
Absent	24	58.5	25	36.2	
Diuretic					
Uses	13	31.7	18	26.1	0.66
Do not use	26	63.4	45	65.2	
Smoke					
Uses	8	19.5	16	23.2	0.42
Do not use	33	80.5	53	76.8	
Respiratory disease					
Gift	5	12.2	3	4.3	0.17*
Absent	36	87.8	64	92.8	
Prostate Surgery					
Gift	2	4.9	10	14.5	0.05*
Absent	18	43.9	38	55.1	
Type of birth					
Vaginal	23	88.5	36	92.3	0.60*
Non-vaginal	3	11.5	3	7.7	
Hypoglycemic					
Insulin	10	24.4	17	24.6	0.74*
Uses	29	70.7	46	66.7	
Do not use					
Drink	6	14.6	8	11.6	0.84*
Uses	35	85.3	61	88.4	

* Calculation compromised due to the fact that there are less than five elements in the contingency table.

DISCUSSION

The process of feminization of old age can be confirmed among the population surveyed. On average, women live seven years longer than men and this longevity can be explained by factors such as: the highest mortality rates among men; the occurrence of a significant fall in maternal deaths; female hormone protection (estrogen); less female exposure to risk behavior in traffic and work; the lower rates of alcohol and tobacco consumption were among women and because of the women's adherence behavior to health care.[17]

Among the Brazilian illiterates, 39.9% are aged ≥60 years[18]. So the studied group presents a slightly lower mean than the national one, which can be explained by the research scenario located in the southeastern region of the country, historically characterized by larger indexes of literacy when compared to the others,[18] corroborating low level of education since 88.2% of the participants were illiterate or had incomplete elementary education. This fact shows the low insertion of participants in literacy programs for adults and/or the low effectiveness of these programs.[19]

When conducting a political and economic analysis, it can be considered that an illiterate population with low levels of schooling, such as the one addressed in this research, coincides with the one that is exposed to other social problems such as low income, hunger, unemployment / underemployment, alienation and difficulty of access to health.[20]

The socio-demographic data allowed us to confirm that, in the population under investigation, the triad "health, safety and social participation", which underlies an active aging policy, was not satisfactorily met, compromising an aging favorable to the preservation of functional capacity.

♦ Risk situations for urinary incontinence:

Urogenital history, as a relevant component in the evaluation of the risks for urinary incontinence, in both genders, made it possible to identify peculiarities according to gender.[5]

In the case of the prostate gland, the gland is completely crossed by the urethral canal, which accounts for the fact that it is considered a marker for urinary dysfunction in men.[21] In addition to being located in the vicinity of neurological structures responsible for continence, for example, the pudendal nerve.[21]

During prostatectomy surgeries, the chances of occurrence of lesions at the sphincteric level and / or in nerve endings, justify the possibility of the appearance of UI.[21-2] This fact may be temporary or definitive, considering that some people, in the post-operative period, can resume their continence in a few days, some, in weeks or months, and there are a number of them where this does not occur.[21]

In the case of women, gynecological surgeries can alter the internal arrangement of the pelvic organs, compromising the physiology of continence.[21,23] The uterus, by supporting structures such as the bladder and urethra, when removed (hysterectomy), can interfere in the configuration of these organs to the point of compromising urinary physiology by altering the pelvic floor support function.[21,23]

On the other hand, correction surgery of the perineum, whose objective is to reinforce the support structures of the organs and reallocate them in order to correct prolapses of the pelvic organs, can act as a protection factor for UI. However, in the long term, there is a possibility of recurrence of anatomical dysfunction and recurrence of UI.[23]

Poorly assisted normal delivery is considered a triggering factor for UI due to the risk of micro-injuries in the muscles and nerves of the pelvis.[24] This alteration is capable of compromising the structures responsible for the support of the pelvic floor, since the process of reconstituting these tissues can occur with formation of fibrosis, whose neotissue is incapable to meet the demands of contraction and of force.

Incontinence, among women, may also be associated with vaginal delivery when techniques such as forceps and episiotomy are used. Both can cause injury to the muscle fibers of the levator muscle of the anus and sphincter, muscle of the urethra, altering the physiology of urination.[24]

Some diseases represent predisposing factors for urinary incontinence in both genders.[25] The Brazilian demographic transition, associated with economic investments in health and technology, has changed the profile of the types of diseases that affect the population aged 65 years or over.1 Parasitic and infectious diseases give space to the chronic diseases, associated, especially to the lifestyle (occupation, stress) and behaviors (eating, practicing or not of physical activity and habits of consuming cigarettes and alcoholic beverages).[1]

In the investigated population, the highest indices were among the non-transmitable

chronic diseases: cardiovascular, 84 (76.4%), metabolic, 32 (29.1%) and osteoarticular diseases, 16 (14.5%) . (Table 1).

DM, as a metabolic disease, can cause changes in the urinary system both in the inicial phase, and long term, and in different ways. In the initial phase, excessive glucose concentration in the urine acts as a bladder irritant and can trigger detrusor muscle hyperactivity, resulting in frequent desires to urinate.[26]

In the long term (five to ten years), when not adequately treated, diabetes mellitus may generate hypertrophy of the detrusor muscle as a function of its chronic hyperactivity. This fact results in a reduction in the bladder compliance and contraction capacity that justifies the occurrence of overflow incontinence and the appearance of recurrent urinary infection due to the significant volume of residual urine.[26]

During the data collection process, the interviewer had the opportunity to check the medications in use by the participants and to identify an approximation between diseases / medications / treatment / aging process. The triangulation of different sources of information evidenced the tendency of the participants to adhere to the treatment of arterial hypertension (76.4%), reaffirmed by the use of antihypertensive drugs (70%) and the treatment of diabetes (29.1%), confirmed by the use (24.5%), which was corroborated by the evidence of an increase in the number of drugs and diseases that intensified over the years (Tables 2 and 3).[8]

It should be mentioned that the participants adhered to the strategies used by the professionals of the health unit to which they are linked, although this unit does not have a FHS, as mentioned in the characterization of the research scenario. It is worth noting that adherence to the treatment of hypertension and diabetes represent a protective factor for UI.[23,26]

The incidence of urinary incontinence, when measured by this questionnaire appeared as diseases of the genitourinary tract, and was mentioned by only one interviewee (0.9%). The explanation for the low (in) direct recognition of the occurrence of urinary incontinence can be attributed to the fact that it is not identified as a disease in the conception of the participants.[9,27]

Among the determinants for urinary incontinence are also risk behaviors, such as smoking and alcoholism.[9]

Nicotine is considered a vesicle-irritant agent, capable of causing detrusor muscle hyperactivity. In addition, the cigarette predisposes to the occurrence of chronic cough, which increases intra-abdominal pressure and favors the appearance of UI. Similar to nicotine, alcohol is a vesicriting agent capable of conferring risk to the continence process.[7, 9]

♦ Application of the ICIQ-SF scale

From the point of view of the aging process, although it is physiological, it is directly related to the lower functional capacity of the lower urinary tract and the bladder, favoring the emergence of UI[5,7] and justifying higher UI rates in elderly people when compared to other age groups and other transient situations, such as gestation and the puerperium.[24]

Although the UI has an incidence variability described in the literature, this variation can be explained by the profile of the participants.[8] In this investigation, because we did not include people who were bedridden and / or hospitalized, a lower incidence was estimated when compared to the national reality , due to the lower vulnerability of this group to the event of urinary incontinence.

Incidence data from the UTI found are in agreement with the Pan American Health Organization (PAHO), that is, from 30 to 60% among the population aged ≥60 years, varying according to the degree of fragility of the elderly person.[8]

There are estimates that consider the incidence of UI of 30% of the elderly living in the community, 40% of those in a hospital environment and 50% of those living in long-term care facilities.[9] This is equivalent to saying that, in the literature, the incidence of Urinary incontinence among elderly people was lower than that identified in this investigation. This fact can be explained by the interaction obtained before the UI approach was carried out, to promote its reporting without fear or shame, and to have underreporting recognized due to the constraint of having it.[10,27]

The increase in the incidence of UI as a result of global population aging is estimated for the next 13 years, according to a Norwegian longitudinal survey. Although Brazil does not have equivalent surveys, it is possible to infer that the same will occur when national census data are analyzed concomitantly with scientific evidence on the subject in different sample profiles[10,18,28].

Urinary incontinence of stress (UTI) is considered when there is a complaint of urine loss associated with physical exertion, coughing, sneezing, laughter or sudden change

of position. The plausible explanation for its occurrence is based on the increase of the abdominal pressure and due to the increase of the intravesical pressure, which, in turn, exceeds the urethral and sphincter pressure, favoring the loss of urine.

In an intact and continent system, in any of the stress situations mentioned above, urethral resistance should be able to withstand the pressure received to the extent that urine leakage is successfully avoided.[21]

Urgent urinary incontinence (UI) is the second most prevalent type (22.8%), the first being UT,I (50.1%).[7-8] In the case of UUI, urine leakage is monitored and / or preceded by urgency. If the origin of this disorder is motor, uncontrolled detrusor contractions result from obstruction / resistance, aging or the occurrence of pelvic or urethral inflammatory processes. It should be added that sometimes due to difficulty in walking, the chances of falling are intensified by the person's attempt to reach the toilet quickly, before partial / total loss of the urine occurs.[8,25,29] When the person with UUI is in an environment which presents limitation of immediate access to toilets, their social interaction may be compromised.[29-30]

Mixed Urinary Incontinence (MUI) is the combination of urgency and stress incontinence, and the pathophysiology is equally mixed.[6]

The identification of determining factors for the occurrence of urine loss is relevant to the definition of the therapeutic approach and to assist in its coping. One example is to distinguish whether the cause was of neurological origin (such as those arising from colon and rectum surgeries, hysterectomy, prolapse surgery, abdomino-perineal amputation in which there is damage to the pelvic nerve, hypogastric plexus, and pudendal nerve), and / or if there were changes in the anatomic disposition of the bladder-urethra, to the point of compromising the mechanism of continence.[21]

Although ICS classified stress incontinence as the most frequent, and it could affect up to 50.1% of the cases, other studies that used the ICIQ-SF scale corroborated the fact that the presence of urgency incontinence surpasses that of effort, as identified in this investigation.[10,29-30]

A study of the prevalence of urinary incontinence among elderly people, with characteristics that approximate the population of this investigation, found, as a cause of urinary loss, the fact that the person cannot reach the bathroom in time, evidence that allows to name it as an emergency.[10]

Although the inference about the type of incontinence in progress, from the participants' report was made, it is worth mentioning that, in order to obtain a reliable diagnosis of the type of incontinence, it is necessary to prove the association between the complaint of the investigated person, confirmatory clinical examination and urodynamic examination, a fact that was not the scope of this investigation.

Despite being considered a silent morbidity, with low spontaneous demand for treatment, UI is an impact factor on daily activities and this fact was not corroborated by data from this investigation.[27, 30] Research indicates that the UUI is the most impacting on daily activities when compared to other types, since when feeling the voiding desire, it is necessary to immediately interrupt the activities they were performing, a fact that limits the insertion of the person with UI into daily and work activities.[30]

Although DM is mentioned in the literature as a risk factor for the establishment of UI, whether in the initial phase or when chronic, it did not present statistical significance (p value = 0.510) when associated with UI indices (Table 4). Although this correlation also does not appear in other similar studies, it is believed that the strong adherence to the treatment of DM among participants was a bias due to the non-manifestation of urinary disorders due to this morbidity.[5,10,26]

Among the respondents, there was no association between type of delivery (p value = 0.600), prostate surgery (p value = 0.057) and risk behaviors, such as cigarette smoking (p value = 0420) and alcoholic beverage (p value = 0.840) (Table 4).

CONCLUSION

By characterizing the participants regarding the socio-demographic profile and the aging process, it was possible to identify that the 110 people aged ≥65 years were, mostly, women (62.7%), had a mean age of 73 (variability 65 to 96 years and had less than 7 years of education (88.2%).

Urine loss was reported in 41 (37.8%) of the participants, and the UUI (73.5%), was more frequent, and there was no correlation with the level of statistical significance (p value 0.66) between the use of antihypertensive) and the prevalence of UI. In view of the above, it was possible to accept the hypotheses of nullity: it considered the incidence of urinary incontinence equal to or greater than 30%; Which denied that the greatest prevalence of urinary incontinence was that of exertion and that there was no

influence of the use of antihypertensive medication on the onset of incontinence.

The high UI rates allowed confirm the risk to fragility to which the investigated population is exposed, compromising an active aging process with maintenance of functional capacity, social participation and access to health.

The relevance of incontinence, as a component of geriatric syndromes, in the context investigated, allowed us to suggest: 1) its inclusion or resizing among the contents addressed in the academic training of generalist nurses; 2) Resize local policies, programs and actions of an emergency nature when prioritizing an active aging process.

REFERENCES

1. Campolina AG, Adami F, Santos JLF, Lebrão ML. A transição de saúde e as mudanças na expectativa de vida saudável da população idosa: possíveis impactos da prevenção de doenças crônicas. Cad Saúde Pública [Internet]. 2013 June [cited 2016 May 22];29(6):1217-29. Available from: http://www.scielo.br/pdf/csp/v29n6/a18v29n6.pdf

2. World Health Organization. Envelhecimento ativo: uma política de saúde [Internet]. Brasília: OPAS; 2005 [cited 2016 May 22]. Available from: http://bvsms.saude.gov.br/bvs/publicacoes/envelhecimento_ativo.pdf

3. Diz JBM, Queiroz BZD, Tavares LB, Pereira LSM. Prevalência de sarcopenia em idosos: resultados de estudos transversais amplos em diferentes países. Rev bras geriatr gerontol [Internet]. 2015 July/Sept [cited 2016 May 22];18(3):665-78. Available from: http://www.scielo.br/pdf/rbgg/v18n3/1809-9823-rbgg-18-03-00665.pdf

4. Duarte MCS, Loureiro LSN, Fernandes MGM, Nóbrega MML, Costa KNFM. Functional disability in the elderly´s conceptual analysis. J Nurs UFPE on line [Internet]. 2012 Oct [cited 2016 May 22];6(10):2348-55. Available from: http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/viewFile/2718/pdf_1535

5. Virtuoso JF, Menezes EC, Mazo GZ. Fatores de risco para incontinência urinária em mulheres idosas praticantes de exercícios físicos. Rev bras ginecol obstet [Internet]. 2015 [cited 2016 May 22];37(2):82-6. Available from: http://www.scielo.br/pdf/rbgo/v37n2/0100-7203-rbgo-37-02-00082.pdf

6. Abrams P, Cardozo L, Fall M, Griffiths D, Rosier P, Ulmsten U, et al. The standardisation of terminology of lower urinary tract function: report from the standardisation sub-committee of the International Continence Society. Neurourol Urodyn [Internet]. 2002 [cited 2016 May 22];21(2):167-78. Available from: https://www.ics.org/publications/ici_3/v2.pdf/abram.pdf

7. Sacomoric C, Negri NB, Cardoso FL. Incontinência urinária em mulheres que buscam exame preventivo de câncer de colo uterino: fatores sociodemográficos e comportamentais. Cad saúde pública [Internet]. 2013 June [cited 2016 May 22];29(6):1251-9. Available from: http://www.scielo.br/pdf/csp/v29n6/a21v29n6.pdf

8. Moraes EN. Atenção à saúde do idoso: aspectos conceituais [Internet]. Brasília: OPAS; 2012 [cited 2016 May 22]. Available from: http://apsredes.org/site2012/wp-content/uploads/2012/05/Saude-do-Idoso-WEB1.pdf

9. Silva VA, D'Elboux MJ. Atuação do enfermeiro no manejo da incontinência urinária no idoso: uma revisão integrativa. Rev Esc Enferm USP [Internet]. 2012 [cited 2016 May 22];46(5):1221-6. Available from: http://www.revistas.usp.br/reeusp/article/view/48147/0

10. Langoni CS, Knorst MR, Lovatel GA, Leite VO, Resende TL. Incontinência urinária em idosas de Porto Alegre: sua prevalência e sua relação com a função muscular do assoalho pélvico. Fisioter Pesqui [Internet]. 2014 Jan/Mar [cited 2016 May 22];21(1):74-80. Available from: http://www.revistas.usp.br/fpusp/article/view/80146/84036

11. Santos MIPO, Griep RH. Capacidade funcional de idosos atendidos em um programa do SUS em Belém (PA). Cienc saúde coletiva [Internet]. 2013 Mar [cited 2016 May 22];18(3):753-61. Available from: http://www.scielo.br/pdf/csc/v18n3/21.pdf

12. Ministério do Planejamento, Orçamento e Gestão (BR), Instituto Brasileiro de Geografia e Estatística. Censo Demográfico 2010: Sinopse do Censo Demográfico 2010 Minas Gerais Brasil [Internet]. Rio de Janeiro: IBGE; 2010 [cited 2016 May 22]. Available from: http://www.censo2010.ibge.gov.br/sinopse/index.php?uf=31&dados=0.

13. Dias JA, Arreguy-Sena C, Pinto PF. Ser idoso e o processo do envelhecimento: Saúde percebida. Esc Anna Nery Rev Enferm [Internet]. 2011 Apr/June [cited 2016 May 22];15(2):372-9. Available from:

http://www.scielo.br/pdf/ean/v15n2/v15n2a21

14. Farias RG, Santos SMA. Influência dos determinantes do envelhecimento ativo entre idosos mais idosos. Texto contexto-enferm [Internet]. 2012 Jan/Mar [cited 2016 May 22];21(1):167-76 Available from: http://www.scielo.br/pdf/tce/v21n1/a19v21n1.pdf

15. Pereira MCA, Silva LDF, Moura TNB, Pereira LCA, Landim MBP. Contribuições da socialização e das políticas públicas para a promoção do envelhecimento saudável: uma revisão de literatura. Rev Bras Prom Saúde [Internet]. 2016 [cited 2016 May 22]; 29(1):273-80. Available from: http://periodicos.unifor.br/RBPS/article/view/4422/pdf

16. Tamanini JTN, Dambros M, D'Ancona CAL, Palma PCR, Rodrigues Netto Jr N. Validação para o português do "International Consultation on Incontinence Questionnaire - Short Form" (ICIQ-SF). Rev Saúde Pública [Internet]. 2004 June [cited 2016 May 22];38:438-44. Available from: http://www.scielo.br/pdf/rsp/v38n3/20662.pdf

17. Almeida AV, Mafra SCT, Silva EP, Kanso S. A feminização da velhice: em foco as características socieconômicas, pessoais e familiares das idosas e o risco social. Textos contextos (Porto Alegre) [Internet]. 2015 Jan/June [cited 2016 May 22];14(1):115-31. Available from: http://revistaseletronicas.pucrs.br/ojs/index.php/fass/article/view/19830/13313

18. Ministério do Planejamento, Orçamento e Gestão (BR), Instituto Brasileiro de Geografia e Estatística. Síntese de Indicadores Sociais : uma análise das condições de vida da População Brasileira [Internet]. Rio de Janeiro: IBGE; 2013 [cited 2016 May 22]. Available from: http://biblioteca.ibge.gov.br/visualizacao/livros/liv66777.pdf

19. Soares MRP, Istoe RSC. Afabetização e inclusão de pessoas idosas: uma proposta interdisciplinar mediada pelas tecnologias da informação e da comunicação. Rev Cient Interdisciplinar [Internet]. 2015 July/Sept [cited 2016 May 22];2(3):165-75. Available from: http://revista.srvroot.com/linkscienceplace/index.php/linkscienceplace/article/view/123/62

20. Alves H, Escorel S. Processos de exclusão social e iniquidades em saúde: um estudo de caso a partir do Programa Bolsa Família, Brasil. Rev Panam Salud Publica [Internet]. 2013 Dec [cited 2016 May 2016];34(6):429–36. Available from: http://www.scielosp.org/pdf/rpsp/v34n6/v34n6a09.pdf

21. Padmanabhan P, Dmochowskl R. Urinary incontinence in women: a comprehensive review of the pathophysiology, diagnosis and treatment. Minerva ginecol. 2014 Oct;66(5):469-78. (IMPRESSO)

22. Kojima Y, Takahashi N, Haga N, Nomiya M, Yanagida T, Ishibashi K, et al. Urinary incontinence after robot-assisted radical prostatectomy: pathophysiology and intraoperative techniques to improve surgical outcome. Inter J Urol [Internet]. 2013 Nov [cited 2016 May 22];20(11):1052-63. Available from: http://onlinelibrary.wiley.com/doi/10.1111/iju.12214/full

23. Vasconcelos CTM, Vasconcelos Neto JA, Bezerra LRPS, Augusto KL, Karbage SAL, Frota IPR, et al. Disfunções do assoalho pélvico: perfil sóciodemográfico e clínico das usuárias de um ambulatório de uroginecologia. Gestão e Saúde [Internet]. 2012 [cited 2016 May 22];4(1):1484-98. Available from: http://gestaoesaude.unb.br/index.php/gestaoesaude/article/view/226/pdf_1

24. Lopes DBM, Praça NS. Incontinência urinária autorreferida no pós-parto: características clínicas. Rev Esc Enferm USP [Internet]. 2012 June [cited 2016 May 22];46(3):559-64. Available from: http://www.scielo.br/pdf/reeusp/v46n3/05.pdf

25. Silva VA, D'Elboux MJ. Fatores Associados à Incontinência Urinária em Idosos com critérios de Fragilidade. Texto contexto-enferm [Internet]. 2012 Apr/June [cited 2016 May 22];21(2):338-47. Available from: http://www.index-f.com/textocontexto/2012pdf/21-338.pdf

26. Marini G, Piculo F, Barbosa AMP, Damasceno DC, Matheus SMM, Rudge MVC. Importância do modelo animal para testar hipóteses sobre a fisiopatologia do binômio diabetes e incontinência urinária feminina. Sci Med [Internet]. 2011 Oct/Dec [cited 2016 May 22];21(4):191-95. Available from: http://revistaseletronicas.pucrs.br/ojs/index.php/scientiamedica/article/view/9230/7246

27. Menezes GMD, Pinto FJM, Silva FAA, Castro ME, Medeiros CRB. Queixa de Perda Uriária: Um problema silente pelas mulheres. Rev Gaúcha Enferm [Internet]. 2012 Mar [cited 2016 May 22];33(1):100-8. Available from: http://www.scielo.br/pdf/rgenf/v33n1/a14v33n1.pdf

28. Ebbesen MH, Hunskaar S, Rortveit G, Hannestad YS. Prevalence, incidence and remission of urinary incontinence in women: longitudinal data from the Norwegian HUNT study (EPINCONT). BMC Urology [Internet]. 2013 [cited 2016 May 22];13:27.Available from: http://bmcurol.biomedcentral.com/articles/10.1186/1471-2490-13-27

29. Fernandes S, Coutinho EC, Duarte CJ, Nelas PAB, Chaves CMCB, Amaral O. Qualidade de vida em mulheres com incontinência urinária. Referência [Internet]. 2015 Apr/June [cited 2016 May 22];4(5):93-9. Available from: http://www.scielo.mec.pt/pdf/ref/vserIVn5/serIVn5a11.pdf

30. Melo BES, Freitas BCR, Oliveira VRC, Menezes RL. Correlação entre sinais e sintomas de incontinência urinária e autoestima em idosas. Rev Bras Geriatr Gerontol [Internet]. 2012 [cited 2016 May 22];15:41-50. Available from: http://repositorio.unb.br/bitstream/10482/11672/1/ARTIGO_CorrelacaoEntreSinais.PDF

Submission: 2016/06/07
Accepted: 2017/02/08
Publishing: 2017/03/01

Corresponding Address

Nathália Alvarenga-Martins
Rua Espírito Santo, 1286
Bairro Centro
CEP: 36016200 – Juiz de Fora (MG), Brazil