ORIGINAL ARTICLE

Health-related quality of life in women aged 20-64 years with urinary incontinence

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Abstract

Introduction and hypothesis Urinary incontinence (UI) in women is a frequent and invisible clinical situation that affects several aspects in the lives of patients. The aim of this study is to assess the impact of urinary incontinence on different dimensions of quality of life.

Methods Cross-sectional observational study. The sample brings together 381 women living in the Metropolitan Region of Chile, who answered a survey between June 2020 and June 2021, with questions about the sociodemographic situation, obstetric history and the EQ5D-3L questionnaire Chilean version and urinary incontinence variables. For the analysis of association between variables were used a correlation coefficient and logistic regressions.

Results The mean age of the sample was 39.9 (SD: 12.6) years, with 68.5% of multiparous women and 42.5% had a history of vaginal delivery. Fifty percent of the respondents belong to a medium-high socioeconomic level according to the health insurance proxy. The analysis adjusted for age, health insurance and obstetrics variables showed that women with a frequency of moderate/severe urine loss had a 72% greater probability of suffering from moderate/severe pain/discomfort compared to women with nothing/little urine loss. In turn, the self-perception of affectation of urine loss was significantly associated with problems in the dimensions of mobility, anxiety/depression and health status.

Conclusions This research contributes with evidence that makes visible the affectation on physical and psychological dimensions in women with urinary incontinence, allowing decision-makers to prioritize resources and design health programs that include clinical management.

Keywords Quality of Life · EQ-5D · Urinary Incontinence · Woman · Pelvic Floor · Chile

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Abbreviations

ENCAVI	Spanish acronym for national quality of life survey
ENS	Spanish acronym for national health survey
EQ-VAS	Euro-Qol visual analogue scale
FONASA	Spanish acronym for National Health Fund, public health insurance in Chile
FUL	Frequency of Urine Loss
HRQOL	Health-related quality of life
ISAPRE	Spanish acronym for Private Health insurance in Chile
UI	Urinary Incontinence
SPAUL	Self-Perception Affectation of Urinary Loss
SPHS	Self-Perception of Health Status

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Introduction

Urinary incontinence (UI) or involuntary loss of urine is a frequent clinical situation in women that has a strong impact on the psychological and social area of health-related quality of life (HRQOL) [1, 2], whose approximate prevalence in Chile is 23% between 30-44 years and 32% between 45-64 years[1].

HRQOL has been defined as a result of health conditions that evaluate the impact on a person's quality of life, their status of health, health care and their ability to achieve/maintain a level of independence, together with their self-perception of their physical and psychological health and the relationship with their environment [3–5]. Determining HRQOL is useful for decision-making, identification and prioritization of problems, as well as in monitoring the impact of the disease and treatment. To this end, both disease-specific assessment instruments and generic questionnaires covering a wide range of dimensions have been created [3, 4]. Among the standardized generic questionnaires, the most used is the EuroQol-5D (EQ-5D), developed in the early 90s by the EuroQol Group [6, 7]. Studies indicate that this instrument provides valid measurements when calculating HRQOL in women with exertional, urgency or mixed UI [2, 8].

UI, despite affecting the quality of life, has a reduced consultation rate, estimating that 76% of the symptoms are detected as a clinical finding in women who consult for other causes [1, 9]. It is possible that women, especially those under 50, hide UI for fear of social rejection, the culture in which they are inserted, the relationship it has with aging, shame, anxiety, its impact on daily activities or that they simply learn to live with UI despite limitations [10]. On the other hand, since it is not incorporated among the usual preventive health care, there is a care gap in the Chilean health system in terms of the number of professionals trained in pelvic floor dysfunctions and access to UI consultations [11].

For this reason, and due to the few studies of HRQOL in women with UI in Chile of working age, the aim of this study is to assess the impact of urinary incontinence on different dimensions of quality of life, answering the question ¿what is the level of impact of urinary incontinence on the quality of life in women aged 20 to 64 years?

Method

Cross-sectional observational study. The selected sample was non-probabilistic from volunteer women, size of 346 women was estimated, calculated from a confidence level of 95% and a sampling error of 5%, according to a moderate to intense impact on HRQOL by UI of 65.9% [9] and considered as total population the number of women aged 20 to 64 years residing in the Metropolitan Region according to the last national population census (2017) [12].

The inclusion criteria were women born in Chile, between 20 and 64 years residing in the Metropolitan Region of Santiago de Chile who reported chronic urine loss during the last year.

The exclusion criteria were pregnant women, women with genital prolapse, sporadic loss of urine (associated with genital infection, urinary tract infection or cough due to cold), neurological pathologies, use of diuretics, history of pelvic surgery, severe cognitive disability, reclusion in psychiatric institutions or penal detention centers.

Data collection

A self-reported survey was applied between June 2020 and June 2021, which contained sociodemographic questions, obstetrics history, consultation on the self-perception of current health status (SPHS), specific questions associated with UI on the frequency of urine loss (FUL) and self-perception of the affectation of urine loss (SPAUL). To assess the quality of life was applied the questionnaire EuroQol-5- dimension version 3-level (EQ-5D-3L) that due to the speed of its application and understanding by the respondent, and its use in national surveys in Chile it was selected as part of the data collection instrument.

A self-reported physical version was applied in users with UI who attended a midwife consultation in four Family Health Centres of the Metropolitan Region. As a result of the COVID-19 pandemic, the health authorities of our country after March 2020 took different preventive measures that caused prioritization in clinical care and re-scheduling of consultations and controls of the different health programs [13]. This made it difficult and delayed the application of the questionnaire at the face-to-face level in the target population, in this context it was decided to have an online version disseminated through social networks among women residents of the Metropolitan Region.

Quality of life variables

HRQOL was measured from the generic questionnaire EuroQol-5-dimension version 3-level (EQ-5D-3L) consisting of two parts: a descriptive one containing five dimensions of health (mobility, personal care, usual tasks, pain/discomfort and anxiety/depression) and three categories in each dimension: no problems, some problems, and unable to perform the activity or extreme problems. [7, 14] The levels of each dimension were regrouped into binary variables (1= some

and extreme problems, 0= no problems). And another part is a visual analogue scale (EQ-VAS) that measures the self-perception of the respondent about their overall status of health [6, 7, 14] represented in an image as a thermometer, where 0 is the worst status of health and 100 is the best status of health. On this scale, the person must mark the point on the thermometer that best represents the assessment of their status of health that day. [7, 14, 15] .This instrument is validated and adapted for the Chilean population [16, 17]. It takes approximately 2-3 minutes to be applied, and its validity has been proven both in the general population and in groups of people with specific pathologies [6, 15].

Additionally, the Self-Perception of Health Status (SPHS) is consulted, considering the individual and subjective conception of the intersection of the social determinants of the health of the person, and provides a unique and invaluable assessment of the general status of health of the latter according to their own beliefs. [18] Using a Likert scale, the status of health of the individual is classified into 5 categories: very good, good, regular, bad and very bad, in the same way that has been consulted in population surveys of quality of life in Chile [19, 20]. Regrouped for analysis into very good/good and regular/bad/very bad.

Urinary incontinence variables

The Frequency of Urine Loss (FUL) obtained based on the number of times a person has involuntary urine leakage during the day or week was considered to determine the degree of UI. The alternatives in the survey were: 1 time/week, 2-3 times/week, 1 time/day and several times a day. The categories of the FUL variable were regrouped to create binary variables (1= >1 time/day, 0 = < 1 time/day), choosing FUL > 1 time/day as the interest category.

In addition, Self-perceived Affectation of Urine Loss (SPAUL) was measured, based on a Likert scale on how much urine loss affects in life, considering as alternatives: nothing, little, moderate or severe. The categories of the SPAUL variable were regrouped to into binary variables (1= moderate/severe, 0= nothing/little) choosing SPAUL moderate and severe as the interest category.

Obstetrics variables

Parity is considered as having or not having birth classifying the sample between nulliparous and multiparous, and those with one or more births were considered the category of interest.

Regarding the type of delivery, the sample is classified between those who have had at least one vaginal delivery or by forceps delivery were considered the category of interest, and those who have had only caesarean sections, were the reference group.

In addition, are considered those who have had at least one newborn with a birth weight greater than 4 kilos and those who have not, with the former being the category of interest.

Socioeconomic variable

Due to the high socioeconomic segmentation in Chile, the Health Insurance was considered as an economic proxy, since the distribution of the income quintile correlates with the groups within the health security system [21, 22]. Chile's health system model is of a mixed type, where 77% of the population is affiliated to the public insurance called the National Health Fund (FONASA), 18% of the population is a beneficiary of private health insurance (ISAPRE) belonging to the highest income quintiles and the remaining 5% belongs to the Armed Forces system [23]. The sample was classified into five categories according to which health insurance it belongs, to in four FONASA groups according to income level: A low income and D high income and ISAPRE (reference group ISAPRE)

Statistical analysis

In the descriptive stage, a frequency distribution analysis was performed for the characterization of the population under study. For the variables age and EQ-VAS, the mean was estimated together with the standard deviation.

Differences in the distribution of the variables according to FUL and SPAUL were evaluated using the X^2 statistic for the dimensions of the EQ-5D-3L and t-test of mean difference for age and EQ-VAS score.

Logistic regression models were developed to assess the association of HRQOL variables (dimensions EQ-5D, EQ-VAS and SPHS) with UI variables (FUL and SPAUL), adjusted by a set of confounding variables. The confounding variables used in the models: age, medical insurance and obstetrics variables. The multicollinearity of the independent variables was examined using a correlation matrix and the variance inflation factor (VIF). The odds ratio (OR) were estimated with adjusted models, with their respective confidence interval (95% CI). The goodness of fit of the models was evaluated with the Hosmer-Lemeshow test. For a better interpretation of the ORs they were expressed in terms of probabilities calculated according to the formula OR/(1+OR) [24, 25]. For all analyses was used SPSS software version 27.0.

Ethical aspects

The research project was approved by the Research Ethics Committee of the Faculties of Health and Dentistry and Medicine of Diego Portales University. The study has the informed consent of the participants.

Results

435 surveys were applied, 30% of them in person at Family Health Centres of the Metropolitan Region, and 70% online given the conditions of the COVID-19 pandemic. Of the total, prior to the analysis, 15 cases were excluded for not belonging to the Metropolitan Region, 1 for being outside the age range, 5 for being pregnant, 3 for presenting degenerative pathologies and 30 surveys for being incomplete, leaving a total of 381 surveys (87.6%) that met the eligibility criteria to be included in the study.

The sample was composed mainly of women whose health insurance belongs to the FONASA public system, with an average age of 39 + 12.6 years. According to parity, 120 (31.5%) respondents declared they were nulliparous and 261 (68.5%) multiparous. Regarding the type of delivery, of the total multiparous 62% reported having had at least one vaginal delivery, 54.8% had at least one caesarean section and 15.7% had at least one forceps delivery. And 19.5% of the multiparas referred to have had a newborn with a birth weight greater than 4 kilos.

The results of the UI and HRQOL variables are shown according to the categories of the survey applied in Table 1.

Women with higher severity in FUL and SPAUL had a higher mean age and a concentration in the FONASA health insurance compared to those with lower severity. (Table 2)

In the total distribution of the sample, it stands out that in the EQ-5D 51.9% report having some degree of pain/discomfort and 63.5% some affectation in the anxiety/depression dimension.

The analysis showed a higher frequency of having problems in the moderate to severe pain/discomfort dimensions in those with FUL >1 time/day. In the case of women with moderate/severe SPAUL, they had a significantly higher frequency in the pain/discomfort and anxiety/depression dimensions than those with nothing/little SPAUL.

Unlike other dimensions, in mobility the highest concentration of women who present problems is among those with little/nothing SPAUL, where 19% within this category have mobilization problems compared to 9% among women with moderate/severe SPAUL.

Regarding EQ-VAS, both for women with FUL > 1 time/day and with moderate/severe SPAUL the score was lower, as well as a higher frequency of perception of the regular/

Table 1 Characteristics of the sample and study variables (*n*=381)

Characteristics	N	%
Age (Mean + SD)	39 + 12.6	
Health Insurance*		
FONASA A	71	18.6%
FONASA B	80	21.0%
FONASA C	38	10.0%
FONASA D	61	16.0%
ISAPRE	131	34.4%
Frequency of Urine Loss		
1 time/week	90	23.6%
2-3 time/week	115	30.2%
1 time/day	106	27.8%
Several times/day	70	18.4%
Self-Perception Affectation of Urinary Loss		
Nothing	66	17.3%
Little	182	47.8%
Moderate	94	24.7%
Much	39	10.2%
EQ-VAS score (Mean + DS)	71.5 + 28.2	
Self-Perception of Health State		
Very Good	121	31.8%
Good	150	39.4%
Regular	88	23.0%
Bad	13	3.4%
Very Bad	9	2.4%

*Health Insurance in Chile. FONASA in its four sections corresponds to the public system and ISAPRE to the private system is used as a socioeconomic proxy

bad and very bad status of health, representing a decreased quality of life.

Women aged 50 years or older represented 23% of the sample of our study, this age group had a mean age of 57.7 years and EQ-VAS of 69.9 points, presenting in 73% of them problems in the pain/discomfort dimension and in 66% in anxiety/depression. In addition, 66% and 44% of them reported having FUL >1 time/day and moderate/severe SPAUL, respectively.

On the other hand, the group of women under 50 years of age had a mean age of 34.4 years and EQ-VAS of 72 points, presenting in 45% of them problems in the pain/discomfort dimension and in 63% in anxiety/depression. Regarding the UI variables, 40% and 32% of them reported having FUL >1 time/day and moderate/severe SPAUL, respectively (data not shown in tables).

Goodness of fit suggested that all models were suitable. The X^2 values in the Hosmer-Lemeshow test indicated that the adjustment variables increased the robustness of the model by predicting the data well for FUL and SPAUL.

Table 2 Distribution of the sample in the sociodemographic, obstetrics and HRQOL variables according to categories of the FUL and SPAUL variables

VARIABLES	Total Sample (381)	Frequency of Urine Loss (FUL)			Self-Perception Affectation of Urinary Loss (SPAUL)		
		< 1 time/ day (n=205)	> 1 time /day (n=176)	p-value	Nothing / little (n=248)	Moderate / Severe (n=133)	p-value
SOCIODEMOGRAPHIC VARIABLES							
AGE (Mean + SD)	39 + 12.6	36.8+ 11.2	43.5+ 13.2	<0.001**	38.4+12.4	42.7+ 12.5	0.001**
Health Insurance				0.019*			0.004**
Fonasa A	71 (18.6%)	29 (14.0%)	42 (23.9%)		40 (16.1%)	31 (23.3%)	
Fonasa B	80 (21.0%)	41 (20.0%)	39 (22.1%)		51 (20.6%)	29 (21.8%)	
Fonasa C	38 (10.0%)	22 (11.0%)	16 (9.1%)		26 (10.5%)	12 (9.0%)	
Fonasa D	61 (16.0%)	29 (14.0%)	32 (18.2%)		31 (12.5%)	30 (22.6%)	
ISAPRE	131 (34.4%)	84 (41.0%)	47 (26.7%)		100 (40.3%)	31 (23.3%)	
OBSTETRICS VARIABLES							
Parity				<0.001**			<0.001**
Nulliparous	120 (31.5%)	83 (40.5%)	37 (21.0%)		95(38.3%)	25(18.8%)	
Multiparous	261 (68.5%)	122 (59.5%)	139 (79.0%)		153 (61.7%)	108(81.2%)	
Newborn weighing more than 4 kilos				0,052			0.101
No	330 (86.6%)	184 (89.8%)	146 (83.0%)		220 (88.7%)	110 (82.7%)	
Yes	51 (13.4%)	21 (10.2%)	30 (17.0%)		28 (11.3%)	23 (17.3%)	
History of vaginal delivery				<0.001**			0.002**
No	219 (57.5%)	136 (66.3%)	83 (47.2%)		157 (63.3%)	62 (46.6%)	
Yes	162 (42.5%)	69 (33.7%)	93 (52.8%)		91 (36.7%)	71 (53.4%)	
History of forceps delivery				0.310			0.104
No	340 (89.5%)	186 (90.7%)	154 (87.5%)		226 (91.1%)	114 (85.7%)	
Yes	41 (10.5%)	19 (9.3%)	22 (12.5%)		22 (8.9%)	19 (14.3%)	
History of cesarean section				0.035*			0.073
No	238 (62,5%)	138 (67.3%)	100 (56.8%)		163 (65.7%)	75 (56.4%)	
Yes	143 (37.5%)	67 (32.7%)	76 (43.2%)		85 (34.3%)	58 (43.6%)	
HRQOL VARIABLES							
Mobility				0.522			0.011*
I have no problems in walking about.	322 (84.5%)	191 (93.1%)	131 (74.4%)		201 (81.0%)	121 (91.0%)	
I have some problems in walking about	58 (15.2%)	13 (6.3%)	45 (25.6%)		47 (19.0%)	11 (8.3%)	
I am confined to bed	1 (0.3%)	1 (0.5%)	0 (0.0%)		0 (0.0%)	1 (0.7%)	
Self-care				0.558			0.656
I have no problems with self-care.	374 (98.2%)	202 (98.5%)	172 (97.7%		244 (98.4%)	130 (97.8%)	
I have some problems washing or dressing myself	6 (1.6%)	3 (1.5%)	3 (1.7%)		4 (1.6%)	2 (1.5%)	
I am unable to wash or dress myself	1 (0.3%)	0 (0.0%)	1 (0.6%)		0 (0.0%)	1 (0.7%)	
Usual Activities				0.965			0.090

Table 2 (continued)

VARIABLES	Total Sample (381)	Frequency of Urine Loss (FUL)			Self-Perception Affectation of Urinary Loss (SPAUL)		
		< 1 time/ day (*n*=205)	> 1 time /day (*n*=176)	p-value	Nothing / little (*n*=248)	Moderate / Severe (*n*= 133)	p-value
I have no problems with performing my usual activities.	338 (88.7%)	182 (88.8%)	156 (88.6%)		225 (90.7%	113 (85.0%)	
I have some problems with performing my usual activities	42 (11.0%)	23 (11.2%)	19 (10.8%)		23 (9.3%)	19 (14.3%)	
I am unable to perform my usual activities	1 (0.3%)	0 (0.0%)	1 (0.6%)		0 (0.0%)	1 (0.7%)	
Pain / Discomfort				<0.001**			0.006**
I have no pain or discomfort	183 (48%)	125 (61.0%)	58 (33.0%)		132 (53.2%)	51 (38.3%)	
I have moderate pain or discomfort	180 (47.2%)	75 (36.6%)	105 (59.7%)		105 (42.3%)	75 (56.4%)	
I have extreme pain or discomfort	18 (4.7%)	5 (2.4%)	13 (7.4%)		11 (4.5%)	7 (5.3%)	
Anguish / Depression				0.185			0.019*
I am not anguished or depressed	139 (36.5%)	81 (39.5%)	58 (33.0%)		101 (40.7%)	38 (28.6%)	
I am moderately anguished or depressed	197 (51.7%)	98 (47.8%)	99 (56.2%)		118 (47.6%)	79 (59.4%)	
I am extremely anguished or depressed	45 (11.8%)	26 (12.7%)	19 (10.8%)		29 (11.7%)	16 (12.0%)	
SPHS				0.037*			<0.001**
Very good / good	271 (71.2%)	153 (74.6%)	118 (67.0%)		196 (79.0%)	75 (56.4%)	
Regular/ bad/ very bad	110 (28.8%)	52 (25.4%)	58 (33.0%)		52 (21.0%)	58 (43.6%)	
EQ-VAS (Mean + SD)	71.5 + 28.2	74.3 + 20.2	67.5+21.1	0.001**	74.9 + 19.6	64.4 + 21.6	<0.001**

FUL: Frequency of Urine Loss. SPAUL: Self-Perception Affectation of Urinary Loss. SPHS: Self-Perception of Health Status

Pearson chi-squared p-value for variables Health insurance, EQ5D and SPHS; p-value T-Test for mean differences in age and EQ-VAS

*significance <0.05

**significance <0.01

In the final logistic regression models, it is shown that the values of the variance inflation factor of the covariates age, health insurance and obstetrics variables fluctuated between 1.009 and 1.416 indicating the absence of multicollinearity. The Cox-Snell pseudo R^2 for the significance variables HRQOL for in adjusted FUL models were pain/discomfort (0.127), and in adjusted SPAUL model were Mobility (0.023), pain/discomfort (0.094), anxiety/depression (0.018) and SPHS (0.07).

In the adjusted OR values, it stands out that women with FUL > 1 time/day were 2.53 times more likely to have pain/discomfort compared to those with FUL <1 time a day and that women with moderate/severe SPAUL have 2.73 times a worse perception of their status of health compared to those with a little/nothing SPAUL

In the adjusted OR values, the odds for woman with FUL > 1 time/day group were 2.53 times greater to having some or severe pain/discomfort to those with FUL <1 time a day.
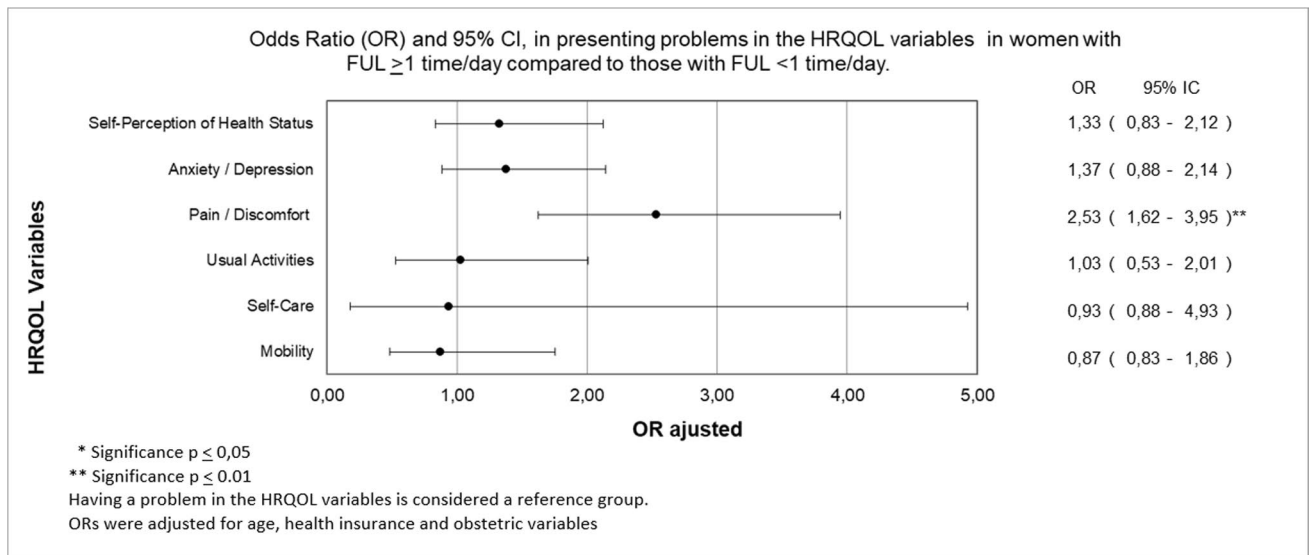
Graphic 1 Note: This data is mandatory. Please provide.
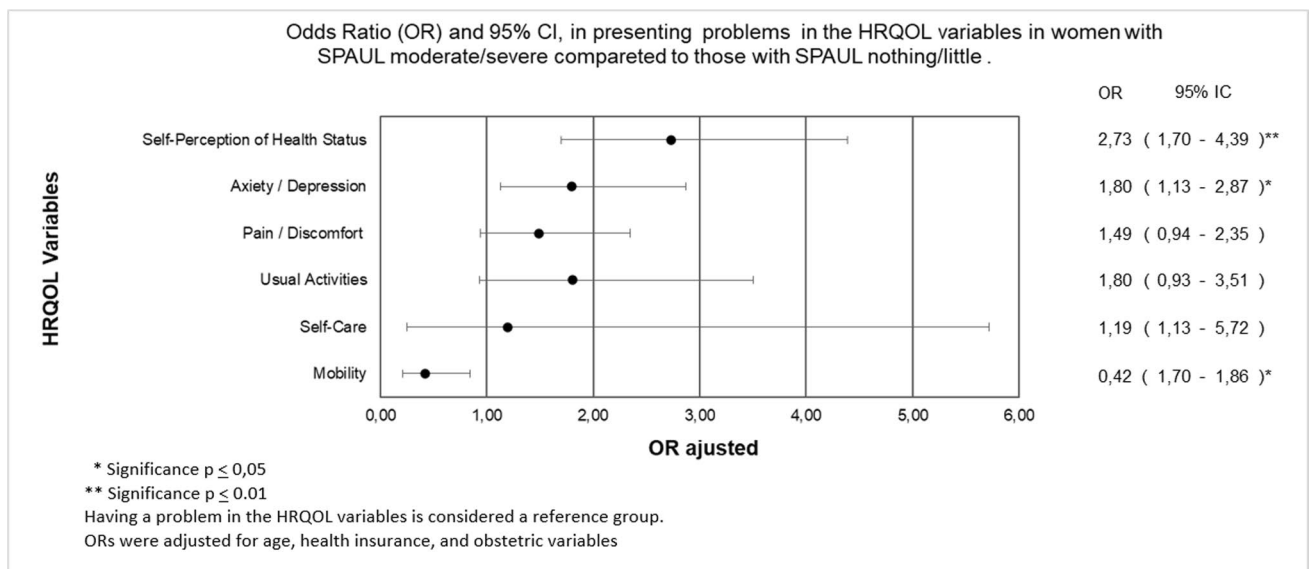
Graphic 2 Note: This data is mandatory. Please provide.

In terms of probabilities, the probability of a woman having pain/discomfort having FUL > 1 time/day is 71.7%. And the odds for women with moderate/severe SPAUL group were 2.73 greater to having a worse perception of their status of health compared to those with a little/nothing SPAUL, that in terms of probability is 73%. (Graphics 1 and 2).

It is worth mentioning that in the mobility dimension it is observed that women with moderate/severe SPAUL are 1.14 times less likely to present mobility problems than those with little/nothing SPAUL. However, we suggest precaution with this interpretation because a small number of observations in the interest category

Discussion

In our sample a significant association was observed between being multiparous or having a history of vaginal delivery with a higher frequency of urine loss or the perception of the impact of this loss on their lives, as described in the literature about the risk factors for pelvic floor dysfunction [1, 26]. Thirty-two percent of the sample were nulliparous, so there are other risk factors for urine loss to different degrees.

Anatomical and physiological changes in the climacteric stage predispose women to pelvic floor dysfunction, for this reason, most studies on HRQOL associated with UI have been conducted in populations of women over 50 years of age [27]. This perspective fact that it is often overlooked the effect that UI has on the quality of life of younger women. Twenty-three percent of the sample of our study corresponded to women aged 50 years or older, being the representativeness of this group lower than expected, explained by the prioritization of attention around reproductive health during the pandemic and/or by not having familiarity with the use of social networks, however, it is possible to perceive that the older the greater the FUL and the worse SPAUL.

When comparing the results of the sample with the general female population belonging to the Metropolitan Region of Santiago de Chile of 20 to 64 years, from the results of the Quality of Life Survey (ENCAVI) carried out in 2016 [19] and the National Health Survey conducted between 2016 and 2017 (ENS) [20], no significant differences were observed in the mean age, however, 37% of the sample of women in ENCAVI and 48% of the women participating in ENS reported a self-perception of status of health as regular/bad/very bad, unlike our sample where only 29% perceive their status of health in these categories. Another difference is that the mean EQ-VAS score for ENS was 64.1 points, while for the sample it was 71.4 points. These differences could be explained by a better socioeconomic status observed in our sample and the non-probabilistic design of our study.

There is a significant association between FUL and the dimension pain/discomfort (p<0,001) and weak correlation between these variables. The OR in terms of probabilities shows that women with FUL >1 time/day are 72% more likely to suffer a moderate/severe degree of pain/discomfort, compared to women with FUL<1 time/day. It stands out that 67% of women with FUL > 1 time/day report having moderate/severe pain, percentage slightly higher than the population group of women aged 20 to 64 years in the Metropolitan Region, who reported in the ENS problems in that dimension in 62% [20].

SPAUL has a significant association (p<0.001) with respect to how the respondent perceives her status of health,

the reason for this may be that the relationship between perceived health and well-being varies with age, adjusting to the goals according to aging [28]. However, SPAUL and SPHS have a weak correlation. Forty-three percent of the sample reporting moderate/severe SPAUL coincides with regular/bad/very bad SPHS.

In terms of probabilities, women with moderate/severe SPAUL were 73% more likely to self-perceived regular/bad/very bad status of health, compared to women with little/nothing SPAUL. These results they are in the same direction to the study by Alvarado & Bonilla (2021) which shows the negative impact of UI on quality of life [9].

Impact of poor health could negatively influence well-being if it interferes with the achievement of personal goals such as social life and work performance [28]. A thirty-four percent of the total sample were affiliated to ISAPRE, which explains an overrepresentation of beneficiaries of the private health system and 16% affiliated to FONASA D, then it can be inferred that these respondents would have better access to the Internet due to their better socioeconomic level and maybe being active in the workforce.

The goodness of fit suggested that all the models used were adequate. After adjusting the logistic regression models, it is observed in terms of probabilities, that women with moderate/severe SPAUL were 64% more likely to have moderate or severe anxiety/depression, compared to women with little/nothing SPAUL. These results were similar to those of Caruso & Brescia (2017) regarding the impact of UI on quality of life [10]. Furthermore, these results contrast with ENCAVI where 28% of women in Metropolitan Region with aged 20-64 years reported having depressive symptoms in the last year [19] and ENS where 35% of women in this group reported having some degree of anxiety/depression [20], which suggests that there may be a deterioration in this dimension due to UI and unmeasured variables such as confinement due to COVID-19.

In the mobility dimension of EQ-5D, and counterintuitively, women with moderate/severe SPAUL were significantly 30% less likely to present moderate/severe mobility problems, compared to women with little/nothing SPAUL. A possible explanation can be found in the study of Bascur (2020), in which women acquire the need to hide the symptoms and use comfort elements as the symptomatology progresses, especially so as not to be ridiculed by those around them, especially those who live in a restrictive cultural environment [11].

In our study, the association of the variables of urinary incontinence with presenting problems in the dimension of habitual activities is not significant, unlike the study results presented in the systematic review by David & Wailoo (2013), where these authors argue that the impact of UI on HRQOL can be assessed indirectly through in the

dimensions habitual activities and anxiety/depression of EQ5D-3L [29].

The strengths of the study emanate from a large sample, which together with the statistical analysis carried out contributes to making visible the existence and importance of UI, as a prevalent clinical condition in women under 50 years of age. This highlights the need to adapt sexual health programs, considering among their preventive practices the evaluation of the functionality of the pelvic floor in every woman who attends gynaecological consultation.

As limitations of the study, it is worth mentioning the restricted access to a face-to-face application of the survey, due to the sanitary measures because of COVID-19, which could be a cause of bias in favour of a younger sample and of better socioeconomic status, facilitating the access of these participants to social networks, which must be considered when interpreting the results. Another limitation could be the direct effect of the COVID-19 pandemic on HRQOL, especially in dimensions related to mental health, which may have affected the results. Finally, and although it is true that more than 40% of the Chilean population resides in Metropolitan Region, it is not possible to extrapolate these results to the general population, since in the other regions of the country there are important cultural, social and economic differences that should be considered.

In conclusion, our results show that self-perception affectation of urinary incontinence, has a greater impact and severity on the quality of life of women with this clinical situation. Young women with urinary incontinence residing in the Metropolitan Region of Chile, had a high and significant probability of presenting moderate/severe problems in the dimensions of pain/discomfort and anxiety/depression of EQ-5D, and a worse self-perception of their status of health.

This research expects to contribute evidence that makes visible the importance of early investigation of urinary incontinence and allows decision-makers to prioritize resources and design health programs that include their early clinical management. It is suggested to carry out population prevalence studies and comparisons between age groups, including consulting on urinary incontinence in national quality of life surveys, as well as having studies on the economic impact of this pathology on the health system.

Authors' contribution J Aránguiz: Project development, Data Collection, Statistic analysis, Manuscript writing

    P Olivares: Statistic analysis, Manuscript writing, Thesis Director
    C Sandaña: Reviewer
    C Vidal: Statistical support.
    X Castells: Reviewer, Thesis Co-director

Declarations

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