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DETERMINATION OF THE TYPE OF FEMALE URINARY INCONTINENCE IN 2 NATIONAL REPRESENTATIVE POPULATION BASED SURVEYS

Hypothesis / aims of study

There are several types of urinary incontinence (UI): stress (SUI), urge (UUI), mixed (MUI) and other types (OUI). Determination of the UI type is an important issue in epidemiological studies. The ICIQ-UI SF (International Consultation on Incontinence Questionnaire – Urinary Incontinence Short Form) is a standardized validated questionnaire, which contains a question about the circumstances of urine leakage which can be used to determine the type of UI. Our aim is to compare the prevalence of different types of UI in 2 representative samples of the French female population, defining the type of UI according to the last question of the ICIQ.

Study design, materials and methods

Data come from two cross-sectional representative studies conducted in France in 2010, FECOND and BaroSanté, with two-stage (household and individual) random sampling and interviews conducted by phone. The objective of FECOND was to analyze practices related to sexual and reproductive health in France. The ICIQ-UI SF was proposed to all participants. BaroSanté is a survey of the INPES (National Institute for Prevention and Health Education) which is conducted since the early 1990s every 5 years. In 2010 the ICIQ-UI SF was proposed to women 40 and older. Overall 5030 women from FECOND (age 18-49) and 3432 women from BaroSanté (age 40-85) answered to the first question of the ICIQ-UI SF, and those who reported leakage of urine (668 in FECOND and 794 in BaroSanté) completed the last question about the circumstances of urine leakage.

First the prevalence of UI is described for each sample for women from 18 to 85 years by 5-years interval using information collected in each study. We defined the types of UI based on ICIQ questions using the definitions found in 3 articles [1-3]. We compared the distributions of the different UI types between the two studies in the decade 40-50 years, the common age interval for FECOND and BaroSanté, using the two-sided Fisher exact test, and p-values <0.05 were considered statistically significant.

Results

The graphical representation of the prevalence of the types of UI shows an increase in the prevalence of UI with age with some peak frequencies: for SUI at 35-44, 50-54 and 65-69 years, for UUI at 55-59 years and for MUI at 30-34 and 60-64 years (Figure 1).

Fig. 1. Distribution of UI types in FECOND and BaroSanté
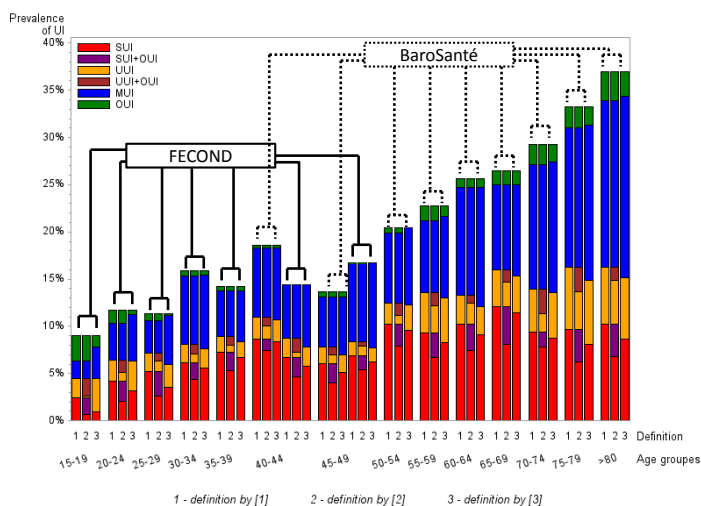
We observed congruent distributions between the 2 studies for UUI, whatever the definition used. For SUI and MUI we observed more fluctuations in the prevalence (Table 1).

Table 1. Distribution of UI types in women of FECOND and BaroSanté in 40-49 years decade.

Age group UI type		40-44 years BaroSanté (N=439)	FECOND (N=776)	p	45-49 years BaroSanté (N=427)	FECOND (N=782)	p
Definition by [1]							
SUI	N (%)	38 (8.7)	52 (6.7)	0.21	26 (6.0)	54 (6.9)	0.63
UUI	N (%)	10 (2.3)	16 (2.0)	0.84	8 (1.8)	11 (1.5)	0.63
MUI	N (%)	32 (7.3)	44 (5.7)	0.27	23 (5.4)	65 (8.3)	0.06
OUI	N (%)	1 (0.3)	0 (0.0)	0.36	2 (0.5)	0 (0.0)	0.12
Definition by [2]							
SUI only	N (%)	33 (7.5)	36 (4.7)	0.04	17 (4.0)	43 (5.4)	0.27
SUI+OUI	N (%)	5 (1.2)	15 (2.0)	0.36	9 (2.0)	12 (1.5)	0.49
UUI only	N (%)	6 (1.4)	4 (0.6)	0.18	4 (0.9)	7 (0.9)	1.00
UUI+OUI	N (%)	4 (1.0)	11 (1.5)	0.59	4 (0.9)	4 (0.5)	0.46
MUI	N (%)	32 (7.3)	44 (5.7)	0.27	23 (5.4)	65 (8.3)	0.06
OUI	N (%)	1 (0.3)	0 (0.0)	0.36	2 (0.5)	0 (0.0)	0.13
Definition by [3]							
SUI	N (%)	37 (8.4)	44 (5.7)	0.07	22 (5.2)	49 (6.2)	0.52
UUI	N (%)	10 (2.3)	16 (2.0)	0.84	8 (1.8)	12 (1.5)	0.64
MUI	N (%)	33 (7.6)	51 (6.6)	0.56	26 (6.2)	70 (9.0)	0.10
OUI	N (%)	1 (0.3)	0 (0.0)	0.36	2 (0.5)	0 (0.0)	0.12

Interpretation of the results

Data come from two representative studies conducted the same year in the French population, recruitment methods and questionnaires were fairly similar. The major limitation is the lack of medical examination to validate the women's declarations, but previous studies have shown that questionnaires reveal the presence of UI with good accuracy and reliability.

Each definition of UI type has its advantages and disadvantages, for example one is very detailed [2] but it adds fluctuations; others [1, 3] are more stable but general, and this can lead to a loss of information.

We observed similar prevalence of UUI in the two samples, whereas for SUI and MUI we showed differences between FECOND and BaroSanté but reaching significance only for SUI in the age group 40-44 years with the more precise definition [2] and close to significance level for the same comparison using another definition [3], and for MUI we observed differences near the threshold of significance between the 2 studies for the age group 45-49 with all definitions.

Concluding message

Our results suggest that it is possible to determine the UI type from questions about the circumstances of urine leakage. The congruence observed in our data supports the hypothesis of the stability of the ICIQ. We need now to choose the definition that best fits our long-term objective to model the UI from the available epidemiological studies.

References
1. 1. Espuña-Pons M, Dilla T, Castro D, et al.// Analysis of the value of the ICIQ-UI SF questionnaire and stress test in the differential diagnosis of the type of urinary incontinence. // Neurourol Urodyn. 2007;26(6):836-41
2. 2. Khullar V, Sexton CC, Thompson CL, et al. // The relationship between BMI and urinary incontinence subgroups: Results from EpiLUTS. // Neurourol Urodyn. 2013 Jun 18. doi: 10.1002/nau.22428. Epub ahead of print //PMID:2378090
3. 3. Rotar M, Trsinar B, Kisner K, et al. // Correlations between the ICIQ-UI short form and urodynamic diagnosis. // Neurourol Urodyn. 2009;28(6):501-5. doi: 10.1002/nau.20689