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## SELF-REPORTED URINARY INCONTINENCE IN WORKING WOMEN

### Aims of Study

This study was undertaken to better understand UI and its impact on working women over 18 years of age. The specific aims of the study were to: 1) compare prevalence of UI in women employed full-time in either a urban academic center (AW) or a rural manufacturing setting (MW); 2) compare urine loss symptoms; 3) determine strategies used to control urine leakage; and 4) determine help-seeking of incontinent women.

### Methods

A cross-sectional survey design was used. Institutional Review Board approval was obtained prior to distribution of the questionnaires. During summer 1997, an 8-page questionnaire was distributed in an academic center. Women were instructed to return completed questionnaires unsigned, in a pre-addressed envelope. The questionnaire was distributed during summer 1998 in the manufacturing setting by the on-site occupational health nurse. Women completed questionnaires anonymously, sealed them in plain manila envelopes and placed them in a designated box.

The questionnaire was based on previous work by the authors and content validity was obtained by review of continence experts. Multiple choice and open ended items were included. Items elicited information on demographic and health characteristics, symptoms and duration of urine loss, strategies to manage urine loss, effects of UI on work activities, level of knowledge about incontinence and treatment options, importance of getting help for UI and help-seeking behaviors.

The International Continence Society's UI definition was used. Women were classified incontinent if they responded affirmatively to one of the following questions: have you lost urine when you were not able to get to the toilet in time? have you ever lost urine when you are asleep? have you ever lost urine when you laugh, cough, or sneeze? have you ever lost urine without meaning to at any time not mentioned above?, and if they leaked urine at least monthly.

### Results

The response rate for AW was 56% (1113/2000) and 53% (269/600) for MW. The average age for both groups was 40 years. More African American were represented in AW than MW, 16% versus 4% ( $\chi^2=25.53$ ,  $p=0.00$ ). AW were more likely to report excellent health, 50% and 18% ( $\chi^2=36.369$ ,  $p=0.00$ ). UI women were older than continent women: AW:45 years versus 39 years,  $t= 8.28$ ,  $p=0.001$  MW: 45 years versus 38 years,  $t= -5.35$ ,  $p=0.001$  Prevalence was higher in the MW, 29% versus 21%, ( $\chi^2=9.06$ ,  $p=0.003$ ). Incontinent women had higher body mass index (BMI) then continent women, see Table 1.

**Table 1**

	INCONTINENT		CONTINENT	
	Academic	Manufacturing	Academic	Manufacturing
<b>MEAN BODY MASS INDEX</b>				
All women	26.9	29.4*	24.5	25.6**
≤ 50 years	26.2	29.6*	24.3	25.4**
> 50 years	28.2	29.1	26.1	27.4

\* comparison within settings,  $p < 0.05$ \*\* comparison across settings,  $p < 0.05$ 

Symptoms reported by AW and MW differed slightly, see Table 2.

**Table 2**

Behavior	Academic N (%)	Manufacturing N(%)	Behavior	Academic N (%)	Manufacturing N(%)
<b>STRESS LIKE:</b>			<b>URGE LIKE:</b>		
Sneezing	187 (83.5)	70(92)	When in Shower or Tub	84(41)	36(51)
Coughing	177(79)	71(95)*	Key in Door	76(38)	36(49)
Laughing	145(67)	56(75)	Running water	76(38)	34(47)
Walking	75(37)	30(42)	Sleeping	48(25)	13(19)
Lifting	72(36)	41(57)*	Sexual Activity	48(25)	15(22)
Standing up	49(25)	21(31)	When hands are in water	47(24)	28(40)*
Bending	45(23)	27(39)*			
Climbing Stairs	41(20)	16(23)			

\*  $p < 0.05$ 

Few women used special pads for urine loss (MW. 3.5% and AW: 5.7%,  $p =$  not significant (NS). Differences in managing UI at work existed: more MW wore pads (47% versus 30%,  $p = 0.005$ ), used deodorant or dusting powder (35% versus 11%,  $p = 0.001$ ), and wore dark clothing (20% versus 4%,  $p = 0.001$ ). More AW used pelvic muscle exercises (45% versus 29%,  $p = 0.03$ ) Women in both settings worried about smelling like urine and having accidents that could be detected by others. MW reported that they couldn't avoid lifting or bending as these activities were part of their jobs. Few reported it to a physician or nurse, MW: 35% versus AW: 46%, NS, but a majority wanted more information, MW: 85% versus AW: 81%, NS. Most women thought getting UI treated was important: MW: 85% and AW. 78%, NS. Only 4 women overall read the AHCPR Guideline for UI in Adults.

### Conclusion

UI is a prevalent problem for working women. Minority women were underrepresented, thus research is clearly indicated to understand the nature of UI in these groups. Stress and urge like symptoms were reported, although stress like symptoms prevailed. Incontinent women were older than dry; BMI was strongly associated with UI, especially in pre-menopausal women. Modifiable factors were identified that could help women control UI, namely BMI, help-seeking behavior, and treatment information. Our findings confirm previous reports that women do not report UI to health care providers. They believed, however, getting treatment was important. Despite the widespread dissemination of the AHCPR guideline, few read it.