

## **Introduction:**

This study looks at how stress and bathroom habits during work affect urinary incontinence (UI) in nurses, especially during the COVID-19 pandemic.

- Many nurses delay using the bathroom due to their busy schedules, which can lead to problems like stress urinary incontinence (SUI) and urge urinary incontinence (UUI).
- Occupational stress (OS) is another factor explaining why nurses delay bathroom breaks.

This study is so important for nurses and other healthcare workers because of the prevalence of workers reporting having lower urinary tract symptoms (LUTS).

A. 60% of nurses report to have at least one symptom of LUTS.

B. Unhealthy bladder behaviors cause SUI and UUI. Such as: straining while voiding, delayed and premature voiding.

## **Purpose:**

The goal is to understand:

1. How nurses manage their bathroom breaks.
2. If certain bathroom habits are linked to stress and UI symptoms.
3. What workplace stressors impacted nurses' ability to use the bathroom.
4. What specific stressors did nurses face during COVID-19 that affected LUTS.

“This study investigated: 1) toileting behaviors of nurses; 2) association that different toileting behaviors have with OS and SUI and UUI symptoms; and 3) the stressors that nurses experienced during the COVID-19 pandemic that influenced their bathroom behaviors at work” (Allen & Ackerson, 2024, p. 39).

## **Methods:**

- This was a mixed methods study
  - Inclusion Criteria: 18 years and older, female-assigned at birth, able to read and speak English, and working in U.S. hospitals during COVID-19.
  - Nurses were recruited through social media (Facebook & Instagram) through online advertising over a 12-week span.
  - Participants completed a 70-item online survey about their bathroom habits, stress, and urinary symptoms.
    - o Tools used in the survey:
      - Michigan Incontinence Symptom Index (M-ISI): Checked for stress and urge urinary incontinence use the information on page 40: evaluated SUI and UUI...
      - Nurses Occupational Stressors Scale (NOSS): Measured workplace stress. Use the information on page 40: evaluated OS...
      - Toileting Behaviors-Women's Elimination Behaviors (TBWEB): Assessed toilet habits.

- After the online survey, if participants consented, one-on-one interviews were conducted on personal experiences about bathroom habits during work to obtain deeper insight into how COVID-19 and job stress affected their ability to use the restroom. Those who participated in one-on-one interviews were offered amazon gift cards.
- Participants were put into a drawing for a \$50 Amazon gift card, 10 were rewarded.

## Results:

- 602 questionnaires were returned, 334 were completed and analyzed.
- 82.3% of nurses reported symptoms of LUTS in the previous month.
  - Of the reported symptoms, 82% had SUI and 55.6% had UUI.
- OS did not show a correlation with either SUI or UUI.
- Premature voiding and straining to void were significantly associated with SUI.
- More than 56% of participants were practicing nurses for 3-6 years, and over 50% of participants reported of having a history of UTIs.
- 45% of participants worried about how clean public (work) restrooms are, with more than one third of participants preferring to empty their bladders at home.
- The most common unhealthy habit was delayed voiding, which was reported by over 43% of participants.
- Stress at work made nurses more likely to hold their urine too long or urinate early.
- Straining while urinating was linked to higher chances of developing UI.
- Nurses reported that during the pandemic they were unable to leave their patients to take bathroom breaks, shortages made bathroom breaks even harder to take. Using the bathroom “just because” was common practice.
- Some nurses admitted to using the restroom without finding patient coverage. Nurses don’t need to find patient coverage to run to the supply/med room so they felt validated doing this, but still felt guilty for taking this quick bathroom break.
- Many participants worked 12-hour shifts in medical-surgical units, ICUs, and EDs.
- All participants noted that adequate hydration and the use of bathrooms were affected when working during the pandemic.
- There are strong correlations between OS, bathroom behaviors, and variations.
- 42.5% of participants reported never being pregnant and 37.1% reported of at least having one pregnancy.
- The number one occupational stressor the was affecting the nurses was having to adapt to their work schedule around their families and lack of time to offer and encourage mental health care to patients. |

**Table 4: Toileting behaviors**

	<b>Never/rarely n (%)</b>	<b>Sometimes n (%)</b>	<b>Often/always n (%)</b>
<b>Delay voiding</b>			
Delay emptying bladder when busy	47 (14.1)	137 (41)	146 (43.7)
Wait to empty bladder until feel you can't hold urine	65 (19.5)	151 (45.2)	117 (35)
Wait too long	79 (23.7)	136 (40.7)	119 (35.6)
<b>Straining to void (strain/tighten abdominal muscles)</b>			
Don't think about emptying bladder completely	94 (28.2)	125 (37.4)	112 (33.3)
Push down to begin urinating	84 (25.2)	143 (42.8)	107 (33)
Push down to keep urine flowing	67 (20.1)	154 (46.1)	111 (33.2)
Push down in order to empty bladder	86 (25.8)	138 (41.3)	109 (32.6)
Push down to empty faster	63 (18.9)	155 (46.4)	115 (34.4)
<b>Premature voiding</b>			
When at home, empty bladder even if you don't feel the need to urinate	103 (30.9)	114 (34.1)	117 (35)
When away from home, empty bladder even if you don't feel the need to urinate	114 (34.2)	131 (39.2)	86 (25.8)
When at someone else's home, empty bladder even when you don't feel the need to urinate	140 (41.9)	121 (36.2)	73 (21.9)
When in public places, empty bladder even when you don't feel the need to urinate	135 (40.5)	117 (35)	79 (23.7)
Empty bladder with little or no need to urinate "just in case"	86 (25.8)	152 (45.5)	95 (28.5)
<b>Place preference for voiding</b>			
Worry about how clean public toilets are	73 (21.9)	109 (32.6)	152 (45.5)
Avoid using public toilets	80 (24.0)	141 (42.2)	112 (33.5)
Empty bladder before leaving home	59 (17.7)	115 (34.4)	159 (47.6)
Hold urine until getting home	79 (23.7)	142 (42.5)	112 (33.5)

**Table 5: Association of OS and toileting behaviors with SUI and UUI**

	Association with SUI			Association with UUI		
	OR	SE	P value	OR	SE	P value
Occupational stress	.992	.023	.732	.999	.018	.964
Place preference for voiding	.976	.073	.742	.832	.056	.001
Premature voiding	1.222	.057	<.001	1.055	.044	.221
Delay voiding	.872	.113	.226	1.001	.087	.988
Straining voiding	1.232	.077	.007	1.173	.064	.013
Normal toileting behavior	.829	.153	.222	.954	.114	.677
Age	.980	.260	.937	1.347	.189	.115
Number of vaginal births	1.455	.263	.154	.834	.193	.348
Fluid intake	.802	.185	.233	.865	.149	.331
History of UTIs	2.335	.385	.027	2.635	.286	<.001
Years worked as an RN	1.228	.266	.441	1.114	.207	.601

Key: OR, odds ratio; SE, standard error

**Conclusion:**

- Nurses' work conditions and stress affect their bathroom habits, which can lead to UUI.
- Hospitals should create policies that ensure nurses can take regular bathroom breaks to protect their bladder health.
- Ensuring adequate staffing is a major way to improve conditions for all staff and patients involved.
- 600 surveys were submitted, surveys eliminated included items that included nonresponses and those that took 5 minutes or less to complete due to it being unfeasible.
- Participants were not asked about chronic health conditions that could lead to bladder infections that lead to SUI or UUI.
- Nurses with UTI within the previous month were not excluded.

Work cited: Allen, E., & Ackerson, K. (2024, May 1). *Stressors and bathroom behaviors associated with urinary incontinence in nurses working during the COVID-19 pandemic: A mixed-methods study*. Nursing management.

<https://pmc.ncbi.nlm.nih.gov/articles/PMC11060053/>