

## ADAPTIVE BEHAVIORS ARE CORRELATED WITH SYMPTOM SEVERITY AND IMPROVE FOLLOWING TREATMENT

### Hypothesis / aims of study

Women with urinary incontinence (UI), fecal incontinence (FI), and pelvic organ prolapse (POP) are known to use adaptive behaviors to cope with their symptoms. The aims of this study were to describe these behaviors using a validated measure and to evaluate changes in adaptations after treatment for these pelvic floor disorders.

### Study design, materials and methods

Participants in this study were women with a primary complaint of UI, FI, or POP and enrolled in one of 6 Pelvic Floor Disorders Network (PFDN) trials: Adaptive Behaviors Among Women with Bowel Incontinence (ABBI), Anticholinergic vs. Botox Comparison (ABC), Ambulatory Treatments for Leakage Associated with Stress incontinence (ATLAS), Operations and Pelvic muscle Training In the Management of Apical support Loss (OPTIMAL), Outcomes following vaginal Prolapse repair and mid Urethral Sling (OPUS), and Refractory Urge urinary incontinence and Botulinum A toxin Injection (RUBI). Pretreatment symptoms were measured using the Incontinence Severity Index (ISI), and Fecal Incontinence Severity Index (FISI); health-related quality of life (HRQOL) was measured with the Pelvic Floor Distress Inventory (PFDI) and Pelvic Floor Impact Questionnaire (PFIQ). Prolapse was assessed by the POPQ examination. Adaptive behaviors were measured using the Pelvic Floor Disorders Adaptive Behavior Index (ABI) that includes 17 items and 2 domains, Avoidance and Hygiene. Three months after trial-specific interventions for UI, FI, or POP, symptoms and adaptive behaviors were reassessed. The relationships between HRQOL and ABI scores at baseline and between changes in both measures (from baseline to 3 months) were assessed using Pearson's correlation.

### Results

569 women (median age 59 yrs) were included. The three adaptive behaviors used most often before treatment are summarized (Table). At baseline, avoidance behaviors were significantly associated with FI symptom severity ( $r=0.47$ ), while hygiene behaviors were associated with UI ( $r=0.31$ ) and FI ( $r=0.54$ ) severity. The ABI avoidance and hygiene domains were correlated with the PFDI and PFIQ at baseline ( $r$  ranged from 0.32-0.79; all  $p<0.001$ ). Three months following treatment, an improvement in symptoms was associated with a decrease in both avoidance and hygiene behaviors for women with UI ( $r=0.38$  and 0.42, respectively; both  $p<0.003$ ), but not for women presenting with FI or POP.

### Interpretation of results

Women presenting for treatment of pelvic floor disorders engage in many adaptive behaviors as measured by the PFD Adaptive Behavior Index. These behaviors, including strategies to maintain hygiene and avoid situations that may worsen symptom severity, are used more among women with greater symptoms. While some adaptive behaviors among women with UI decrease as early as 3 months after treatment, it may be possible that it takes longer for those with FI and POP to give up their adaptations.

### Concluding message

Use of these adaptive behaviors is associated with symptom severity and reliance on these techniques diminishes as UI symptoms improve following treatment.

**Table** – Percent of women endorsing the three most common adaptive behaviors by PFD ABI domain, stratified by primary complaint

Domain	Adaptive Behavior	Percent of Participants who endorsed adaptive behavior by primary complaint			
		UI (N=96)	FI (N=67)	POP with SUI (N=58)	POP without SUI (N=304)
Hygiene	Bathroom mapping	53.1%	65.7%	62.1%	37.8%
	Carry survival kit	25.0%	59.7%	24.1%	13.2%

	Use sanitary napkins/pads	49.0%	55.2%	53.5%	29.7%
<b>Avoidance</b>	Urinate often	36.5%	36.4%	43.1%	26.4%
	Wear easy- to-remove clothes	24.2%	31.3%	31.0%	18.8%
	Avoid standing	13.5%	17.9%	29.3%	20.5%

SUI=stress urinary incontinence

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<b><i>Is this a clinical trial?</i></b>	<b>No</b>
<b><i>What were the subjects in the study?</i></b>	<b>HUMAN</b>
<b><i>Was this study approved by an ethics committee?</i></b>	<b>Yes</b>
<b><i>Specify Name of Ethics Committee</i></b>	<b>University of Michigan IRB</b>
<b><i>Was the Declaration of Helsinki followed?</i></b>	<b>Yes</b>
<b><i>Was informed consent obtained from the patients?</i></b>	<b>Yes</b>