

Urinary Incontinence, Depression and Post-traumatic Stress Disorder in Women Veterans. Bradley et al. *Am J Obstet Gynecol.* 2012 Jun; 206(6): 502.e1-502.e8.

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Description: Psychological distress, anxiety and depressive symptoms have been linked to urinary incontinence in both clinic-based studies and larger epidemiologic studies of middle-aged and older adults. Mental health disorders, including depression and PTSD as particularly prevalent in veteran populations however UI and the associated risk factors have not been well-studied in women veterans and previous studies between anxiety disorders and UI have not focused on PTSD.

Objective: The objective of this study was to measure the 12-month period prevalence of UI symptoms in reproductive-aged women veterans and to study associations between stress and urgency UI symptoms and psychological symptoms, especially those related to depression and PTSD.

Method:

- 1,004 women 52 years of age or younger whom were veterans registered for health care or other veteran services through the Iowa City or Des Moines VA Medical Center completed this study.
- The women completed a computer assisted telephone interview administered by a trained female interviewer
- The participants reported:
 - Urinary incontinence symptoms
 - Depression screen using CIDI-SF (Composite International Diagnostic Interview-Short Form for Major Depression)
 - PTSD screen using the self-report Posttraumatic Symptom Scale (PSS-I)
 - Sexual violence exposures were evaluated using at least 5 detailed questions developed from the National Violence Against Women Survey (NVAWS), the National Women's Study (NWS) and survey of rape in Iowa
 - Generic health-related QOL was assessed using the Short Form, 12-Item General Health Survey
 - History of head injury was assessed

Results:

- Depression and PTSD were common occurring in 31% (depression) and 25% (PTSD)
- Stress and/or urgency incontinence occurred "a few times a month" in 38.6%
- Women with UI were more likely to be married, more likely to be unemployed, heavier, more likely to report chronic medical problems, more parous, more often menopausal, more likely to have had a hysterectomy and a history of UTI.

- Women with urgency/mixed UI more often smoked, exercised less and more often reported a history of head injury
- A history of sexual assault and depression were each more common in women with either stress UI or urgency/mixed UI.
- PTSD is independently associated with urgency/mixed UI symptoms (after controlling for other variables)
- Both women with urgency/mixed UI and those with stress UI were more likely to report taking medication for anxiety or depression in the past 6 months than were women with no UI.

Discussion:

- Mental health symptoms and poorer mental health-related QOL are associated particularly with urgency/mixed UI, but not stress UI.
- PTSD was independently associated with urgency/mixed UI.
- Depression was more common in women with urgency/mixed UI and stress UI, but after controlling for other variables, depression was not independently associated with UI symptoms.
- Strengths: large sample size, use of validated diagnostic instruments
- Limitations: use of epidemiologic instruments are not equivalent to diagnoses obtained from full structured diagnostic interview or clinical evaluation; findings limited by cross-sectional study design and a lack of information about possible mental health and UI treatment effects on reported symptoms.
- High rates of past sexual violence are noted in the female veteran population and a history of sexual assault was independently associated with urgency/mixed and stress UI compared to women veterans without UI symptoms.
- Other researchers have theorized that psychological symptoms and urgency UI share a common biological pathway.
 - Duloxetine (a balanced serotonin and norepinephrine reuptake inhibitor, effectively treats major depression as well as stress UI and urgency UI)
 - Alterations in CRF (corticotropin-releasing factor) linked to depression and anxiety as well as stress, may also alter bladder function
 - One study (Seng, 2010) looked at Oxytocin dysregulation and PTSD contributing to “pelvic visceral dysregulation”
- Clinicians treating women with urgency UI should be aware of associations between mental health problems (especially PTSD)

Discussion questions:

- Do you evaluate/screen for mental health disorders in your patients?
- Do you evaluate/screen for sexual assault?
 - Several past clinic- and community-based studies also have reported an association between sexual abuse and lower urinary tract symptoms, particularly overactive bladder and urgency incontinence.
- Clinically (without any research data gathered), I observe, daily, a strong connection between any past abuse, sexual assault and mental health diagnoses with pelvic floor dysfunction.