

PREVALENCE, AWARENESS, AND UNDERSTANDING OF PELVIC FLOOR DISORDERS IN ADOLESCENT AND YOUNG WOMEN

Hypothesis / aims of study:

Pelvic floor disorders (PFDs), including urinary incontinence (UI), fecal incontinence (FI), and pelvic organ prolapse (POP), affect a large proportion of the population, represent an enormous burden on health care cost, and impact the quality of life of women.¹⁻³ Prevention of these conditions requires an understanding of what young women know about these conditions before they actually occur. There is a paucity of data evaluating younger women's knowledge-base of PFDs and prevalence of pelvic floor symptoms. The primary aims of this study were to determine the prevalence, awareness, and understanding of female pelvic floor disorders among women age 19-30.

Study design, materials and methods:

A cross-sectional study via online questionnaire survey of female students age 19-30 enrolled at an urban-setting university was performed. Responses from "adolescent" women, ages 19-24 were compared to "young" women, ages 25-30. The questionnaire included basic demographic and health information, as well as validated measures assessing pelvic floor symptoms, including the Incontinence Severity Index-2 (ISI-2), the Incontinence Symptom Index-Pediatric (ISI-P), the Fecal Incontinence Severity Index (FISI), and one question from the Pelvic Organ Prolapse Inventory 6 (POPDI-6) part of the Pelvic Floor Distress Inventory Short Form-20. To quantify the presence or absence of a condition/symptom the answers from the ISI-2, ISI-P, POPDI-6 were reported dichotomously as yes/no. Other questions assessed knowledge regarding the existence of pelvic floor disorders, whether they have been discussed with family members or friends and speculation regarding their cause including a question regarding which of the following do you feel or think cause UI, FI or POP: having a baby, menopause, getting a Pap smear, having your tubes tied, breast feeding or I don't know. T-test was utilized for continuous variables and chi-square for categorical measures.

Results:

A total of 1144 questionnaires were partially completed with 1022 of those fully completed of 7125 email invites sent. The average age of all respondents was 23.5±3.1 years. The overall prevalence rate of (UI) was 10.3% with no difference in rates between adolescent girls (N=637) ages 19-24 and young women (N=385) ages 25-30 (10% vs 11.0%, p=0.61). There were no differences in rates of urgency UI, stress UI, enuresis, or POP symptoms between groups (Table). There was a higher rate of FI symptoms in the adolescent group (1.8% vs 0.2%, p=0.05). Young women were more likely to have heard about problems related to UI and FI compared to adolescents (85.7% vs 75.9%, p=.0004), as well as POP (67.2% vs 43.7%, p=<.0001). More young women had discussed issues related to UI with family or friends (35.2% vs 24.5%, p=.001) and POP (15.6% vs 10.2%, p=.03) than the adolescent group, respectively. Neither adolescent nor young women had discussed FI with family or friends (8.1% vs 7.7%, p=0.84). The young women group reported higher rates of exposure to the subject of UI, FI, and POP in school and similarly had higher rates of knowledge regarding UI (79.0% vs 60.0%, p=<.0001), FI (52.2% vs 41.1%, p=.006), Flatal Incontinence (38.5% vs 28.6%, p=.0007) and POP (56.9% vs 40.6%, p=<.0001) compared to adolescents. On questions assessing knowledge of UI, FI, and POP, adolescent women and young women answered "I don't know" 29%, 51%, and 48% respectively. Adolescent women and young women had similar interest in learning more about pelvic floor disorders (33.9% vs 31.4%, p=.45).

Interpretation of results:

Women ages 19-30 had an overall 10.3% rate of urinary incontinence. There was no difference in any type of UI between groups. Women ages 25-30 had more exposure to and knowledge of all pelvic floor disorders compared to adolescent females ages.

Concluding message:

This information may be used to help plan educational strategies in adolescents regarding factors associated with the development of PFDs. Primary prevention for the development of PFDs needs to be more fully addressed.

Clinico-Demographics and Pelvic Floor Symptoms

Characteristic	All Ages N=1022	Adolescent (Ages 19-24) N=637	Young Women (Ages 25-30) N=385	P-Value*
Age, mean +/-SD	23.5±3.1	21.5±1.7	27.0±1.7	<.0001
State, n (%)				<.0001
Alabama	780 (71.4)	522 (76.5)	258 (62.9)	
Other	312 (28.6)	160 (23.5)	152 (37.1)	
Race, n (%)				0.82
White	743 (68.9)	456 (67.7)	287 (70.9)	
Black/ African American	200 (18.5)	127 (18.8)	73 (18.0)	
Asian	76 (7.0)	49 (7.3)	27 (6.7)	
Hispanic/Latina	37 (3.4)	27 (4.0)	10 (2.5)	
Pregnancies, n (%)				<.0001
0	934 (87.2)	636 (95.1)	298 (74.1)	
1	94 (8.8)	26 (3.9)	68 (16.9)	
2	27 (2.5)	5 (0.8)	22 (5.5)	
3 or more	16 (1.5)	2 (0.3)	14 (3.5)	
Mode of Delivery, n (%)				<.0001
Vaginal	66 (71.0)	13 (68.4)	53 (71.6)	
C-Section	26 (28.0)	6 (31.6)	20 (27.0)	
Both	1 (1.0)	0	1 (1.4)	
Pelvic Floor Symptom Questions, n (%)				
Urinary Incontinence				0.61
No	979 (89.7)	614 (90.0)	365 (89.0)	
Yes	113 (10.3)	68 (10.0)	45 (11.0)	
Stress Urinary Incontinence				0.28
No	933 (87.8)	588 (88.7)	345 (86.5)	
Yes	129 (11.2)	75 (11.3)	54 (13.5)	
Stress Urinary Incontinence				1.00
Impact	55 (80.9)	34 (80.9)	21 (80.8)	
Non-Impact	13 (19.1)	8 (19.1)	5 (19.2)	
Urgency Urinary Incontinence				0.34
No	989 (90.6)	613 (89.9)	376 (91.7)	
Yes	103 (9.4)	69 (10.1)	34 (8.3)	
Enuresis				0.66
No	1070 (98.0)	667 (97.8)	403 (98.3)	
Yes	22 (2.0)	15 (2.2)	7 (1.7)	
Fecal Incontinence				0.05
No	1079 (98.8)	670 (98.2)	409 (99.8)	
Yes	13 (1.2)	12 (1.8)	1 (0.2)	
Prolapse				0.65
No	1089 (99.7)	681 (99.9)	408 (99.5)	
Yes	3 (0.3)	1 (0.1)	2 (0.5)	

* P value comparing age 19-24 to age 25-30 groups

‡IMPACT – Running (Track and Field), Soccer, Tennis, Softball, Volleyball, Football, Gymnastics, Basketball, Dance, Jumping (rope), Cheerleading, Ultimate Frisbee, Badminton, Aerobics, Kickboxing

References

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3. Sung V, Washington B, Raker C. Costs of ambulatory care related to female pelvic floor disorders in the United States. *Am J Obstet Gynecol* 2010; 202(5): 483.e1-483.e4.

Disclosures

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