

## MEDICAL AND PSYCHOSOCIAL FACTORS DETERMINING BOTHER AND TREATMENT SEEKING BEHAVIOUR RELATED TO URINARY INCONTINENCE: RESULTS FROM THE HOSPITALIZED AND OUTPATIENTS' PROFILE AND EXPECTATIONS STUDY (HOPES)

### Hypothesis / aims of study

The socioeconomic burden of urinary incontinence, stress or urge, has been well established. Recent surveys showed that patients who are less bothered by their symptoms are often less likely to seek treatment to relieve those symptoms, but those who are more bothered by their symptoms and seek treatment are more likely to respond to therapy. Gender and age comparing studies however are lacking. In addition, despite the increasing number of studies examining predictors of treatment seeking, few of them have looked at the psychosocial determinants of both the bother and treatment seeking behaviour associated with incontinence.

In a hospital-based, random sample survey (HOPES), we investigated the prevalence and self-perceived severity of incontinence in a sample of inpatients, by gender and age. We also aimed to determine the level of bother from incontinence and identify psychosocial, well-being, lifestyle and demographic factors associated with it.

### Study design, materials and methods

The study was designed to represent a cross section of each of 13 departments of a general hospital, and to include equal numbers of subjects in each of 6 design cells, defined by age (18-40, 41-60, 61-80 years) and gender. Following signed informed consent, data were obtained during a 2-hour, in-person interview, conducted by a well-trained psychologist/interviewer. The research tools (questionnaires and scales) employed were selected from published instruments with documented metric properties, approved by a Scientific Advisory Committee. To ensure acquisition of the highest quality data, all staff were trained, certified, monitored and regularly retrained in all procedures and protocols. A minimum of 10% double data entry ensured accurate data computerization.

The validated version of the ICIQ-SF questionnaire was used for self-assessment of frequency and severity of incontinence, and effect of incontinence on quality of life (QoL). Bother from incontinence was assessed using the IPSS bother question ("Overall, how bothersome have the above symptoms been during the last month") and the AUASI bother question 2 ("If you were to spend the rest of your life with these symptoms as they are now, how would you feel about that"). A very broad range of psychosocial factors was measured using 33 instruments that could be categorized as: 1) personality characteristics 2) beliefs about self, 3) health beliefs, 4) social support, 5) life satisfaction, 6) affect, 7) lifestyle, and 8) demographics.

Results analysis included descriptive statistics, correlation coefficients and multiple linear regressions using SPSS version 13 statistical software package. P values less than 0.05 were considered statistically significant.

### Results

Overall 415 inpatients, 200 men and 215 women, completed the questionnaire. Sixty-five patients (15.7%) reported urine leakage at least once a week. Fifty women or 23.3% of the female inpatient sample and 15 men or 7.5% of the male inpatient sample reported urine leakage. Incontinence was reported by 5.9% of inpatients in the 18-40 age group, 13.9% in the 41-60 age group and 27.9% in the 61-80 group. Prevalence of incontinence was positively associated with female gender ( $r=0.56$ ,  $p=0.000$ ) and older ages ( $r=0.50$ ,  $p=0.000$ ). Amongst those reporting incontinence, frequency of urine leakage was not associated with gender or age. The majority (74.6%) reported small amounts of leaked urine, 9.5% medium and 15.9% large. Quantity of urine leakage was positively associated with female gender ( $r=0.74$ ,  $p=0.007$ ) but not with age.

On a scale of 0-10, the mean influence of incontinence on everyday life was  $4.59 \pm 3.8$ . No differences were noted for gender or age. On the IPSS bother question, 41.3% were significantly bothered by their incontinence, 14.3% moderately, 27% a little and 17.5% not at all. In the AUASI Bother question 2, however, the majority of patients (76%) answered they would feel terrible, unhappy or mostly dissatisfied. No association was found between severity of bother and age or gender in either question.

Interference with everyday life ( $\beta = 0.65$ ,  $p = 0.000$ ), impact on rest of life ( $\beta = 0.56$ ,  $p = 0.000$ ), frequency ( $\beta = 0.48$ ,  $p = 0.000$ ) and quantity ( $\beta = 0.35$ ,  $p=0.004$ ) of urine leakage were associated with bother from incontinence. Among all the psychosocial variables measured, high agreeableness ( $\beta = 0.480$ ), low extroversion ( $\beta = - 0.385$ ), low conscientiousness ( $\beta = - 0.324$ ) and increased perceived choice ( $\beta = 0.278$ ) were found to predict increased bother from urinary incontinence.

Despite the increased bother from incontinence, only 44.4% had sought treatment. Treatment seeking was not significantly associated with gender or age. Treatment seeking was associated with frequency of incontinence ( $r=0.39$ ,  $P=0.028$ ), the self-perceived effect of incontinence on QoL ( $r= 0.48$ ,  $P = 0.010$ ) but more significantly with the AUASI Global Bother Question 2 score ( $r= 0.56$ ,  $P = 0.000$ ). Despite these associations, frequency of incontinence was the only medical factor that had predictive value for treatment seeking ( $\text{Exp}(B) = 1.844$ ).

General subjective well-being scores were no different between those who sought and those who did not seek treatment (24.0 vs 24.9). The psychosocial factors that were found to predict treatment seeking for urinary incontinence were low levels of mastery ( $\text{Exp}(B) = 1.78$ ) and increased physical activity ( $\text{Exp}(B) = 1$ ).

### Interpretation of results

Prevalence of any type of incontinence in hospitalised patients appears to be similar to values recorded in community-dwelling population in earlier studies of either women or men, despite the use of different questionnaires. Previous studies have mostly focused on treatment seeking characteristics of female patients, however this study shows that

impact on everyday life and bother from incontinence as well as treatment seeking is independent of gender. Severity of incontinence was again a predictor of bother. Results however should be interpreted with caution due to the small size of the sample used for linear regression analysis.

#### Concluding message

A higher prevalence of urinary incontinence was recorded in women and in older age, with women also reporting greater urine loss than men, but the effect of incontinence on quality of life and bother from it did not appear to be gender or age specific.

Despite significant bother from incontinence, less than half the people experiencing incontinence seek treatment for it. Personality traits appear to predict bother from incontinence; however bother from incontinence cannot predict treatment seeking. Increased frequency of incontinence and psychosocial factors were found to determine treatment seeking.

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**HUMAN SUBJECTS:   This study was approved by the Aristotle University of Thessaloniki Ethics Committee and Papageorgiou Hospital of Thessaloniki Ethics Committee and followed the Declaration of Helsinki Informed consent was obtained from the patients.**