

DIFFERENCES IN LOWER URINARY TRACT SYMPTOMS AND HELP SEEKING BEHAVIOUR BETWEEN ASIAN AND WHITE MEN.**Hypothesis / aims of study**

The aim of the study was to establish whether there is any difference in lower urinary tract symptoms and related help seeking behaviour between the White and Asian ethnic groups in the UK.

Study design, materials and methods

This study was a secondary analysis of the MRC Incontinence Study, a cross-sectional, epidemiological survey of urinary symptoms based in Leicestershire, UK. A postal questionnaire was sent to adults aged over forty, selected at random from Health Authority registers. The questionnaire, which was designed and validated for this study, asked for details of demographics, general health, urinary symptoms and bother, and health service use.

Ethnicity was recorded using the OPCS classification. For our analysis, symptoms occurring on a weekly basis were considered clinically significant, and were only recorded as present if they exceeded this threshold. Symptoms were regarded as 'bothersome' if they were described as causing 'a lot' of bother, or a 'moderate' to 'severe' problem.

Prevalence rates were compared using the chi-square test. Logistic regression modelling was used to calculate odds ratios controlled for differences in age, socio-economic status and symptom severity where appropriate. Analysis was performed using SPSS for Windows v10.1.

Results

7810 questionnaires were received, with 7401 respondents describing themselves as White, and 409 as Asian. Asian men had a mean age of 52.2 years, compared to 58.6 for White men. 31.1% of Asian men reported at least one LUTS, compared to 24.8% of White men ($p=0.013$). The age-adjusted odds ratio for Asian men having at least one LUTS is 1.86 times that of White men. Table 1 shows the prevalence rates by individual symptom.

Table1: Prevalence rates of LUTS by ethnic group

Symptom	Percentage prevalence			Odds Ratios*		
	White	Asian	P value	OR	95% CI	
Storage	Frequency	5.3	12.2	0.000	3.03	2.15-4.29
	Urgency	8.8	14.2	0.001	2.63	1.90-3.64
	Nocturia	6.7	11.1	0.001	3.43	2.35-5.02
	Urge Incontinence	3.8	7.6	0.000	3.45	2.22-5.35
	Stress Incontinence	1.0	2.3	0.032	3.76	1.73-8.19
Voiding	Slow Stream	11.3	11.4	0.950	1.41	1.00-2.01
	Hesitancy	9.3	10.6	0.423	1.52	1.06-2.18
	Intermittency	10.1	12.0	0.249	1.64	1.17-2.30
	Straining	2.6	5.6	0.001	3.04	1.86-4.97
Post Micturition	Incomplete void	8.2	10.3	0.161	1.75	1.22-2.51
	Post micturition leak	11.4	13.8	0.179	1.48	1.08-2.04

*Asian compared to white. Adjusted for age and socio-economic status

Overall, there were no differences in the prevalence of voiding or post micturition symptoms, except straining, but storage symptoms were much more prevalent in Asian men. However, using logistic regression modelling to control for the difference in age, Asian men appear to have a greater risk for all LUTS, except a slow stream. Odds ratios for voiding and post-micturition symptoms showed an increased risk of between 1.4 and 1.7 times that of white

men. Straining was again the exception, with an odds ratio of 3.04 (95% CI 1.86-4.97). The increase in risk was much higher for storage symptoms, with odds ratios ranging between 2.6 and 3.7.

The overall proportion of men who found their symptoms bothersome was higher for Asian men (10.1% vs. 7.0%, $p=0.015$). However, when adjusted for the higher symptom levels in Asians, there was no difference in bother (OR 1.64, 95% CI 0.95-2.84). Although levels of felt need were also the same (OR 1.18, 95% CI 0.75-1.85), only 27.3% of Asian men who felt they needed help had sought help, compared to 53.1% of White men ($p=0.001$). Asian men were less likely to have consulted their GP about their symptoms (OR 0.55, 95% CI 0.37-0.83), but those that did were as likely to be referred to secondary care as White men (OR 0.56, 95% CI 0.25-1.27). Prostatectomy rates were the same in both groups (OR 0.76, 95% CI 0.43-1.71).

Interpretation of results

Despite their younger age, Asian men experienced significantly more urinary symptoms. When this age difference is controlled for, their increase in risk was almost 400% for some symptoms. There appears to be a clear separation between storage and voiding/post-voiding symptoms in terms of this risk increase, with rates of storage symptoms being much higher. It is unlikely that this can be accounted for by differences in reporting, as this may be expected to affect all responses equally. We feel, therefore, that this represents a true difference in symptoms experienced.

For a given level of symptoms, Asian men report the same levels of bother and felt need as White men. However, fewer of these men actually seek help. This suggests that social influences have a greater effect on decisions to seek help in Asian men. Those that do seek help receive similar treatment to White men.

Concluding message

Asian men appear to be at greater risk of experiencing lower urinary tract symptoms, particularly storage symptoms. Despite similar levels of felt need and bother, they are less likely to seek help for their symptoms. Our results suggest a significant unmet need in the Asian community.

We only report differences in symptoms experienced, and cannot make any comment on the pathophysiology which may underlie these differences.