

PATIENT PERCEPTIONS OF OVERACTIVE BLADDER AND THE EFFECT ON COMPLIANCE WITH DRUG THERAPY

Hypothesis / aims of study

82% of patients with overactive bladder (OAB) will abandon antimuscarinic therapy within six months. Poor compliance with antimuscarinic therapy is associated with poor symptom control, and increased complications of OAB such as falls and fractures, medication switches, inappropriate drug dose escalation and increased invasive investigations. Compliance with drug therapy is multifactorial and includes efficacy and tolerability of treatment and disease severity.

Beliefs about illness and understanding of disease are known to influence satisfaction with treatment and are predictive of future healthcare use. An individual's perception of illness provides a framework on which they make sense of their symptoms, assess the health risks and direct action and coping strategies. The 5 domains of illness perception are: identity, cause, time-line, consequences and cure/control. Identity is the label of the illness and the symptoms an individual attributes to the disease. The cause domain identifies personal ideas about the aetiology of disease. The time-line domain identifies how long an individual believes the illness will last. The consequences of illness are the expected effects and outcome of the illness. The cure/control domain identifies how an individual controls or recovers from illness, including self-directed coping strategies and treatment benefit. Perceptions of illness are formed from many sources including personal experience and information from friends, family and the media.

The influence of illness perception on compliance with drug therapy for OAB is poorly understood. The aim of the study was to investigate patients' perception of OAB and the influence on compliance with medication.

Study design, materials and methods

Patients over 18 years, who could understand spoken and written English referred from primary care with symptoms of OAB participating in a one year prospective follow-up study of conservative treatment for OAB. Patients were recruited from two tertiary urogynaecology referral centres. Participants were required to have symptoms of greater than 3 months duration. Patients with urinary tract infection and significant urogenital prolapse (\geq grade 2) were excluded from the study.

Patients taking part in the study were seen at baseline and at four further follow-up visits over a 12 month period. Patients were also asked to complete the validated brief illness perception questionnaire (B-IPQ). The B-IPQ is an 8-item questionnaire scored on a 0-10 numeric analogue scale. The questionnaire evaluates the 5 domains of illness perception and also has 3 items which evaluate patients' perceived understanding and emotional impact of the disease. The B-IPQ has been used to evaluate perception of chronic disease in patients with asthma, renal failure and diabetes. Data was analysed using SPSS version 15 using t-test calculations.

Results

236 women were recruited into the study. The mean age of participants was 54yrs (range 22-87). 75 patients completed all questionnaires at baseline only; data from these patients was not included in this analysis. 90 patients completed 12 month follow-up, 71 patients dropped out of the study early because of symptom resolution ($n=16$) or poor treatment benefit ($n=55$). Data from all of these patients was used in the analysis.

153 women were prescribed an antimuscarinic drug at baseline. 16 patients dropped out of the study early because of symptom resolution, of which 8 were using drug therapy at their last visit. 55 patients dropped out of the study early due to poor benefit from benefit from treatment, of which 40 patients had been using drug therapy at their last visit. At the end of the study 59 patients were using drug therapy.

The identity domain of the B-IPQ evaluates symptoms perceived to be due to disease. All patients reported a reduction in OAB symptoms over the study period; the mean reduction in identity score domain was 2 points (scale 0-10) from baseline to the end of the study ($P<0.05$). This was statistically significant after 3 months of follow-up (mean reduction in identity score of 1 point; $P<0.05$). Comparing compliant and non-compliant patients, those who remained on drug therapy at 12 months reported significantly lower symptom scores than patients who had ceased drug therapy.

The cure/control domain of the B-IPQ evaluates overall symptom control (i.e. disease control from self-developed coping strategies and medical intervention) and treatment control alone (i.e. control of disease due to medical intervention). Over 12 months follow-up all patients perceived greater treatment control scores than overall symptom control. At the end of the study patients who were compliant with drug therapy reported significantly higher treatment control scores than non-compliant patients. This was not seen at baseline-9 month follow-up.

Analysis of the emotions domain of the B-IPQ showed that all patients reported a reduction in emotional impact from OAB from baseline to the end of the study. Women who were compliant with drug therapy reported significantly greater emotional impact and concerns about OAB symptoms at baseline, than non-compliant patients. At subsequent follow-up there was no significant difference in emotion domain scores between compliant and non-compliant patients.

Analysis of the consequences domain of the B-IPQ showed that all patients perceived a reduction in symptoms and disease effects from baseline to the end of the study. Patients who were prescribed drug therapy at baseline reported significantly higher scores on the consequences domain than patients who were given behavioural advice only. At 3, 6, 9, and 12 months of follow-up there was no significant difference in consequence domain scores between compliant and non-compliant patients.

Patients' perception of the chronicity of OAB was high and did not change throughout the study. The mean timeline domain score at baseline and subsequent follow-up visits was 8 for all patients. There was no significant difference in perceived duration of OAB disease in compliant and non-compliant patients.

At baseline the mean score of the understanding domain for all patients was 4, representing an overall low understanding of disease. Patients who were compliant with drug therapy perceived significantly greater understanding of the disease than patients who were non-compliant. Results of the cause domain of the B-IPQ showed that most patients believe that their OAB symptoms were caused by childbirth and pregnancy, previous surgery, stress and anxiety and aging.

Interpretation of results

Patients have a poor understanding of OAB. Those patients who perceive a greater understanding of their disease are more likely to comply with drug therapy. Most patients believe that OAB follows a chronic course. Treatment of OAB is associated with reduction in the concerns, emotions and consequence domains of illness perception, an increase in perceived disease control and better compliance with drug therapy.

Concluding message

Perceived benefit from treatment is associated with better compliance with drug therapy, lower symptoms and a reduction in the emotional impact of OAB. Understanding OAB disease is associated with greater compliance with drug therapy. Explaining the rationale of drug therapy and the possible aetiologies of the condition may improve long term compliance in patients who are prescribed antimuscarinic medication.

<i>Specify source of funding or grant</i>	No external funding
<i>Is this a clinical trial?</i>	No
<i>What were the subjects in the study?</i>	HUMAN
<i>Was this study approved by an ethics committee?</i>	Yes
<i>Specify Name of Ethics Committee</i>	St Thomas Hospital resarch ethics committee
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	Yes