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RELIABILITY OF REPORTING ON SYMPTOMS AND FEATURES OF OVERACTIVE BLADDER IN A COMMUNITY SAMPLE

Aims of study

The National Overactive BLadder Evaluation (NOBLE) Program encompasses a series of studies designed to provide information on the prevalence and impact of overactive bladder (OAB) symptoms in the USA. OAB is a symptomatic diagnosis used to describe the symptoms of urgency, frequency, with or without urge incontinence. The condition is thought to be highly prevalent and heterogeneous. Estimates of prevalence and individual and societal burden are dependent, in part, on the reliability and validity of self-reported information. As part of the NOBLE Program, we evaluated the test-retest reliability of reporting on OAB and related urinary tract symptoms, coping strategies, and health-related quality of life in a community-based sample.

Methods

A sample of 231 adults completed an interview twice with an average of 2 weeks between interviews. Fifteen screening questions (i.e., yes/no format) were used to test the reliability of reporting OAB symptoms of frequency, nocturia, urgency and urge incontinence. The reliability of reporting symptoms of stress incontinence were also assessed. Affirmative responses to screening questions were followed by more detailed questions about related symptoms, coping strategies and psychological and physical impact of symptoms in the 4 weeks before the interview. Reliability of binary variables was estimated using the kappa statistic (0–1); non-parametric variables were estimated using Spearman's correlation.

Results

The reliability of reporting the number of daytime and night-time micturitions was high, as was reporting symptoms related to nocturia (see Table). Although the reliability of answering 'yes' to any question about urgency was fairly good (kappa 0.58), one question was superior to others (see Table). The reliability of reporting incontinence symptoms was high (kappas 0.7–0.88), as was reporting on the proportion of incontinence episodes that were due to either urge incontinence (r=0.69) or stress incontinence (r=0.71). Reporting on specific activities associated with incontinence (losing urine on the way to the bathroom, kappa 0.71; losing urine with coughing, sneezing, etc, kappa 0.72) was more reliable than answering 'yes'

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to at least one question about incontinence (kappa 0.62). Overall, the reliability of reporting on coping behaviors was good to moderate (kappa 0.47–0.64), with relatively high reliability (kappas ≥0.60) observed for selected coping questions, including concerns about drinking more fluid, limiting travel, bathroom-seeking behavior in a new place, and drinking less fluid at night. Subjects were highly reliable (r=0.81) in reporting their levels of distress associated with the need to use coping behaviors, the use of specific terms to characterize distress, use of protective pads (r=0.82), and interference with activities (kappa >0.60) including ability to travel, attending social events and exercising. Average number of servings of fluid was also reliably reported (r=0.65). The reliability of reporting the duration of time with specific symptoms varied considerably from poor (incontinence) to very good (nocturia). Reliability was poor for compound questions (e.g. Compared to six months ago, are you now waking up the same number of nights, more nights or fewer nights?).

Table. Test-retest reliability of selected questions

Question	Reliability statistic (SE)	
❑ During the day in the past 4 weeks, how many times on average did you go to the bathroom to urinate? By daytime I mean the time period from when you wake up to when you go to sleep.	Spearman's	0.77 (0.01)
❑ On nights that you woke up because you had to urinate, how many times on average did you have to urinate? How many times per night?	Spearman's	0.83 (0.08)
❑ In the past 4 weeks, did you have such a strong urge to urinate that you had to stop what you were doing and rush to the bathroom because you might lose urine?	Kappa	0.62 (0.08)

Conclusions

In our survey, adults reliably reported their symptoms of overactve bladder, the distress associated with these symptoms and the use of coping strategies. With some exceptions, test-retest reliability of reporting symptoms over a 4-week period was high, given that real change in the occurrence of symptoms may have occurred in some individuals between interviews, thus diminishing the estimated reliability. This is especially likely to happen among individuals who do not have OAB but report incidental occurrence of symptoms. The screening questionnaire is currently undergoing further clinical validation and testing as part of the NOBLE Program.

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