

**85**

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**Title:** EFFECTS OF PHYSIOTHERAPY, USING THE ADAPTED DUTCH I-QOL IN WOMEN WITH URGE INCONTINENCE

### **Aims of study**

The symptoms of bladder overactivity consist of urgency, frequency, nocturia and/or urge incontinence. The underlying etiology is still only partially understood. In this study bladder overactivity is perceived as a dysfunction of the bladder in which a subject has no or decreased control over sudden contractions of the detrusor muscle, so that this leads to premature passage of urine [1]. To guarantee homogeneity of the study population a tool was found in the application of ambulatory urodynamics. The Detrusor Activity Index (DAI), based on ambulatory urodynamics, uses results of extramural ambulatory cystometry to quantify detrusor activity during several consecutive filling phases [2]. In this abstract, we report on changes in specific beliefs on the results of undergoing lower urinary tract exercises (LUTE) and functional electrostimulation (FES) in women with bladder overactivity, using an adapted version of the Incontinence-Quality of Life (I-QoL) questionnaire [3].

### **Methods**

In a single blind randomized clinical trial we studied the efficacy of three treatment modalities, i.e. LUTE, office and home based FES and office based FES+LUTE versus a no-treatment group. After the qualification period each patient of the treatment groups received 9 treatment sessions, once a week. LUTE consisted of patient information, bladder training, specific pelvic floor muscle exercises (PFME) and toilet behaviour. FES was applied vaginally through plug mounted electrodes. The maximum level of the current stimulation was 100 mA. The patient was instructed to use the maximal tolerable level during stimulation. Current characteristics were: frequency modulation of 0.1 sec trains of rectangular biphasic 200 :sec long pulses which varied stochastically between 4 and 10 Hz. A portable microprocessor controlled system, the ProUrge system (Innocept Medizintechnik Inc, Gladbeck, Germany) was used. In this study, self-professed patient beliefs were measured by a validated adapted Dutch version of the I-QoL. This was done three times identically, after the first ambulatory investigation, at the end of the study period (within 14 days), and 3 months after the end of the study period.

### **Results**

83 patients were randomized. About 8 patients turned out to have no urine incontinence, but suffered from bladder symptoms like urgency and frequency, so a valid answering of I-QoL items, using a 5 point-Likertscale, had to be reserved for 75 patients. Because one baseline questionnaire was missing by an administrative error, valid data were present for 74 patients, mean age 55.4 (sd. 13.9). After a factor analysis on the items, three factors appeared to have a interpretable substantial labelling of which a self-professed loss of control in urine incontinence in daily life activities (8 items) (Factor I) was the most important factor. Applying repeated measurements ANCOVA on the self-professed loss-of-control-scale scores shows that, controlled for their pre-treatment scores, within-patient differences between the mean of both post-treatment scores at the one hand and pre-treatment scores at the other turn out to be significantly different over therapy groups compared with

controls (Overall  $F=3.93$  by 3 and 56 df.,  $p=0.013$ ;  $N=61$ ). The FES and FES+LUTE therapy groups are showing a statistically significant progress in self-professed incontinence control in daily life activities compared to controls, while the LUTE therapy group reports no progress compared to controls (resp.  $p=0.019$ ,  $p=0.003$  and  $p=0.262$ ).

### **Conclusions**

Using the I-QoL questionnaire, FES and FES+LUTE improve self-professed incontinence control in daily life activities in women with urinary incontinence due to bladder overactivity.

### **References**

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