PARALLEL SESSION 4 – FRIDAY 21ST 2019, 15h30 – 17h00
Momentary Assessment in Overactive Bladder Syndrome (OAB) – the UROMATE

- D. Vrijens: Affective symptoms and the overactive bladder: A systematic review
- G. van Koeveringe: ESM, a solution to unmet clinical needs, using a real life symptom evaluation in OAB
- A. Herrewegh: The development of a patient-reported outcome measurement (UROMATE) for real-time symptom assessment in a population with functional urologic complaints: A focus group study
- A. Baban: Addressing women with Urinary Incontinence: The development of an ICT-based integrated treatment

Theme
Experience Sampling Method (ESM) to unravel symptom formation in OAB

Takeaways
1. Overactive bladder symptom (OAB) complaints are associated with anxiety, depressive symptoms, erectile dysfunction, decreased sexual satisfaction and slightly lower levels of overall health.
2. Focus Group Study: OAB complaints are frequently influenced by social, contextual and environmental factors and mental state.
3. The hypothetical bladder–gut–brain axis (BGBA) is a useful framework under which the interaction between untreated underlying psychological and psychiatric disorders of functional urological disorders can be studied, suggesting that the functional disorder represents a sensitized response to earlier threats such as childhood adversity or previous traumatic events, resulting in perceived emotional and bodily distress — the symptoms of OAB as functional disorder.
4. A urological ESM tool, the “Uromate”, has been developed by following the FDA PROM development guidelines, is capable of measuring the whole picture including somatic complaints, potential contextual triggers and psychological aspects.

Chair: Carsten Leue, Psychiatrist, Maastricht University Medical Center+, NL

Co-chair: Gommert van Koeveringe, Professor Urologist, Maastricht University Medical Center+, NL
Functional urological disorders: a sensitized defence response in the bladder–gut–brain axis

Aim
not applicable

Methods
not applicable

Results
Functional urological and gastrointestinal disorders are interrelated and characterized by a chronic course and considerable treatment resistance. Urological disorders associated with a sizeable functional effect include overactive bladder (OAB), interstitial cystitis/bladder pain syndrome (IC/BPS), and chronic prostatitis/chronic pelvic pain syndrome (CP/CPPS). Poor treatment outcomes might be attributable to untreated underlying psychological and psychiatric disorders, as the co occurrence of functional urological and gastrointestinal disorders with mood and anxiety disorders is common. The hypothetical bladder–gut–brain axis (BGBA) is a useful framework under which this interaction can be studied, suggesting that functional disorders represent a sensitized response to earlier threats such as childhood adversity or previous traumatic events, resulting in perceived emotional and bodily distress — the symptoms of functional disorders. Psychological and physical stress pathways might contribute to such alarm falsification, and neuroticism could be a risk factor for the co occurrence of functional disorders and affective conditions. Additionally, physical threat — either from external sources or internal sources such as infection — might contribute to alarm falsification by influencing body–brain crosstalk on homeostasis and, therefore, affecting mood, cognition, and behaviour.

Conclusion
Multidisciplinary research on symptom formation and integrated care is required to further elucidate and remediate functional urological and gastrointestinal polymorphic phenotypes.

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Affective symptoms and the overactive bladder — A systematic review

Aim
Systematically review the literature on the association of affective conditions with OAB.

Methods
Systematic review according to the PRISMA guidelines. This review is registered in the PROSPERO register (CRD4201400664).

Results
Forty-three articles were included, describing more than 80,000 subjects. Depression and OAB were positively associated in 26 studies, anxiety and OAB in 6 studies. Longitudinal studies reported: a) OAB subjects who developed depression/anxiety or b) depressed/anxious subjects developing OAB, or c) both. The quality of evidence in studies reporting an association between the co-occurrence of OAB and depression was rated level 3 in accordance with the GRADE framework. Evidence reporting on the co-occurrence of anxiety and OAB was rated GRADE level 2. Longitudinal associations between new onset of OAB in depressive subjects was GRADE level 2. Evidence reporting association of OAB with anxiety in longitudinal studies was of GRADE level 1.

Conclusion
To our knowledge, this systematic review is the first to give a comprehensive qualitative overview on the association between OAB and affective symptoms. Many evaluated studies failed to note longitudinal changes and lacked evidence of causality. Still, results revealed an association between OAB and affective symptoms and there is evidence for new onset of OAB in depressive subjects, but further research is necessary to examine the strength of the effect and the direction by which OAB and affective conditions are interrelated.

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ESM, a solution to unmet clinical needs, using a real life symptom evaluation in OAB

Aim
To emphasize that the overactive bladder syndrome (OAB) as we know it, needs refinement in order to better select individualized treatment options and to increase treatment outcome.

Methods
We assessed the current commonly used OAB guidelines and assessment tools. The assessment tools were evaluated using the Cochrane handbook collaboration’s ‘Risk of bias’ tool and compared with the Experience Sampling Method (ESM), a momentary assessment tool.

Results
Only 7 of 12 common assessment methods measure all OAB symptoms. ESM has the potential to real-time measure a broader spectrum of symptoms in OAB patients, including affect, and context of daily life.

Conclusion
Today’s retrospective assessment methods are biased, indicating a need for momentary assessment in OAB. A multimodal assessment method, such as ESM, might be able to capture the multifactorial character and the pleiotropic presentation of OAB.

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The development of a patient-reported outcome measure for real-time symptom assessment in a population with functional urologic complaints—A focus group study

Aim
In the current diagnostic process for overactive bladder syndrome (OAB), biased retrospective questionnaires are often used. There is a need for a new assessment tool that embraces the heterogeneity of the OAB complex. A momentary assessment tool, the Experience Sampling Method (ESM) is promising, capturing random repetitive measurements during the day in the context of daily life and is capable to measure potential contextual triggers and psychological aspects. A focus group study was set up to evaluate which items should be implemented in a urological ESM.

Methods
Focus group interviews were arranged, to assess the suitability and comprehensibility of a newly developed urological patient-reported outcome measurement (PROM), “Uromate.” “Uromate” was created based on ESM literature. A multidisciplinary expert meeting was conducted to gain consensus on item relevance.

Results
The initial ESM questionnaire contained 58 items, but was eventually reduced to 39 items after focus group sessions and expert meeting. Thirty-seven items are repeated questions, including three gender-dependent items. Two items are one-time questions about the use of incontinence material. Additionally, a morning questionnaire was included. Depending on the symptom pattern, a minimum of 26 items and a maximum of 36 items will be repeatedly assessed with “Uromate.”

Conclusion
There is a need for a modern assessment tool for OAB which overcomes the limitations of today’s retrospective questionnaires. Therefore, a urological ESM tool, the “Uromate,” is being developed as a PROM, following the FDA PROM development guidelines, to measure real-time symptoms in the context of daily life.

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Addressing women with urinary incontinence: the development of an ICT integrated treatment

Aim
Pelvic floor muscle training (PFMT) is the recommended approach to address mild to moderate urinary incontinence (UI), although the adherence is variable. This makes elements of training delivery important in treatment effectiveness. Hence, the conversion of biofeedback approach into serious games played on a mobile phone is innovative and may prove effective in motivating women to adhere to their PFMT schedules.

Methods
A mixed approach was implemented to develop serious game scenarios and test the biofeedback and games in a pilot trial. The game functionalities were amended and further tested together with biofeedback system in a trial with 21 women with UI, recruited in 3 hospitals. We collected quantitative (number of sessions performed, rating of different game functionalities etc) and qualitative data (interviews focused on satisfaction with using the system and barriers to adherence; think aloud protocols focused on the momentum experience of women with using the system).

Results
Women performed on average 33 sessions, range [4; 70] with the game and biofeedback system. The evaluation of the games was overall favourable and motivated women to carry their scheduled sessions. The feedback received at the end of the training was perceived by women as being the most important game feature in improving future PFMT performance.

Conclusion
The results show that biofeedback incorporated in a serious game system is a promising approach to motivate women to adhere to PFMT. This study illustrates an innovative, evidence based and iterative approach to develop a system of game-based biofeedback.

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