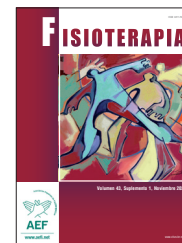




Fisioterapia

www.elsevier.es/ft



1st International Virtual Congress on Conservative Treatment of Pelvic Floor Dysfunction

July 2nd - 3rd, 2021

Invited talks

IT1. OPENING LECTURE. "CONSERVATIVE TREATMENT OF PELVIC FLOOR DYSFUNCTION AND THE "PELVIC" PROJECT ERASMUS+"

Tomasz Halski

Head of KA-2Project.

The presentation is about the Erasmus+ key action 2 project number 2018-1-PL01-KA203-051055. The title of this project is "Education of students within the medical and health sciences, resulting from the health needs of an aging society in Europe. Conservative treatment of pelvic floor muscle dysfunctions, manifested by urinary incontinence." It is a project supporting students of medical sciences and health sciences, especially students of physiotherapy, nursing and midwifery, and the medical community, resulting from the health needs of an aging society in Europe. The project was undertaken at 2018 by three partners universities: Universidad de Cádiz (Spain) under the leadership prof. Alejandro Galán-Mercant, Università degli Studi G.D'Annunzio Chieti Pescara (Italy) leader prof. Raul Saggini and Opole Medical School later (2020) after merging Opole University (Poland) under the leadership prof. Tomasz Halski.

The basis of our project was the following data: Pelvic floor dysfunction (PFD) including faecal and urinary incontinence, sexual dysfunction, pelvic organ prolapse or the presence of chronic pelvic pain affects 25% of adult women worldwide, significantly reducing their quality of life. We know that the aging of the population and the related predicted increase in the number of women reporting pelvic floor dysfunctions over the coming years lead to a need of better understanding of the problem, the rapid detection of risk factors causing PFD and the search for effective methods of conservative treatment.

The most common symptom of PFD is urinary incontinence (UI), which is difficult to estimate because of its intimate nature. It is estimated that 5-69% five to sixty nine % of women and 1-39% one to thirty nine % of men have at least one episode of incontinence or

loss of urine over a period of 12 months. The number of people with UI worldwide in 2018 was around 420 million - 300 three hundred million women and 120 one hundred and twenty million men.

Our project main goal was establish an educational guideline of physiotherapy of pelvic floor dysfunction, based on the principles of evidence based practice.

In our project we set 3 additional goals. The first aim of the project is to develop by an international team of experts a subject in the field of conservative treatment in dysfunctions of pelvic muscles based on the principles of Evidence Based Medicine, second, to develop the international textbook with the subject of PFD. In English, Spanish, Italian and Polish languages.

The introduction of a new subject will supplement the knowledge among students and future medical staff specially of physiotherapy in the field of manual therapy in pelvic floor dysfunctions, which will contribute to their increased attractiveness on the labor market. On the basis of an international project, partner universities will introduce to the compulsory curriculum the subject and syllabuses of "Conservative treatment of pelvic floor dysfunctions", which will contain a number of standards characterizing the programmed subject.

An additional advantage of the project is the involvement of physiotherapists, nurses, and midwives from three countries. It gives the chance to develop the right treatment and prophylaxis based on cooperation within the therapeutic team. At the same time, the curriculum which will be developed will be modified depending on the field of study, so that it will take into account the specifics of individual medical professions.

And the third goal of project and in my opinion an additional advantage of this project will be the unification of manual techniques in the preventive treatment of pelvic floor muscle dysfunctions manifested by the urinary incontinence and the unification of research methodology, so the future articles will enrich the literature on this issue. A textbook will touch upon a problem such as anatomical bases, diagnostics in pelvic floor dysfunctions, palpation assessment, bioelectric activity assessment and passive rigidity of pelvic floor muscles, conservative treatment, manual therapies, physical therapies, electrostimulation and magnetic field stimulation as well as issues related to behavioral therapy.

The end of the project is planned at September 2021 and as a final result will be a textbook in English, Spanish, Italian and Polish languages.

IT2. BIOELECTRICAL ACTIVITY OF PELVIC FLOOR MUSCLES IN HEALTHY WOMEN AND WOMEN WITH URINARY INCONTINENCE

Martyna Kasper-Jędrzejewska, Lucyna Ptaszkowska, Grzegorz Jędrzejewski, Urszula Halska, Tomasz Halski

Institute of Health Sciences, Opole University, Poland.

Previous literature highlights the validity of using surface electromyography (sEMG) measurements when assessing pelvic floor muscle bioelectrical activity with regard to therapeutic progress. This assessment method is considered as an objective, noninvasive and safety tool. The sEMG method is widely used in everyday physiotherapeutic practice as a tool for providing feedback from muscles and it can be applied in assessing and teaching women with pelvic floor dysfunction how to contract and relax the PFM. Urinary incontinence is worldwide a big issue. About every fourth woman is affected and suffers from the related social burden, like social isolation, impact on work performance, negative feelings, interference of sexual life, and abandonments of sport. Measuring sEMG activity in the PFM may be a useful diagnostic tool to confirm the absence of stress urinary incontinence (SUI). Some Authors observed statistically significantly lower sEMG in all activities in the pelvic floor muscles of women with SUI after menopause and the comparison of these values with healthy women. Differences in the sEMG activities of the PFM between the SUI group and the healthy group represent important information in the context of SUI diagnostics. On the other hand, three studies demonstrated that incontinent women have higher PFM activity than continent women during impact activities. This finding challenges the clinical assumption that SUI is associated with reduced PFM activity and suggests that although women with SUI may have reduced muscle mass and maximal ability, the activity of their PFMs is greater during postural perturbation. These findings support the view that SUI is caused by more than morphological changes in PFM, and suggest that it may be due to altered muscle activation patterns or to denervation of the PFM. The abnormalities in muscle activation patterns found in women with SUI may be due to unilateral injury that can happen during vaginal birth and affect PFM morphometry and function. Existing literature shows that sEMG activities in the PFM differ markedly. It is possible that these differences relate to the tests being carried out with different equipment, with different electrodes (shape, size), or with the patient lying in different positions (and also differed in terms of age and condition). However, sEMG can be used in measurement of changes in PFM resting tone, but still requires further investigation.

Keywords: Pelvic floor muscles. Diagnostics. Surface electromyography. Urinary incontinence.

REFERENCES

1. Uechi N, Fernandes ACNL, Bø K, Freitas LM de, Ossa AMP de la, Bueno SM, et al. Do women have an accurate perception of their pelvic floor muscle contraction? A cross-sectional study. *Neurourology and Urodynamics*. 2020;39(1):361-6.
2. Ballmer C, Eichelberger P, Leitner M, Moser H, Luginbuehl H, Kuhn A, et al. Electromyography of pelvic floor muscles with true differential versus faux differential electrode configuration. *Int Urogynecol J* [Internet]. 2020 Feb 17 [cited 2020 May 20]; Available from: <https://doi.org/10.1007/s00192-020-04225-4>
3. Oleksy Ł, Wojciechowska M, Mika A, Antos E, Bylina D, Kielnar R, et al. Normative values for Glazer Protocol in the evaluation of pelvic floor muscle bioelectrical activity. *Medicine (Baltimore)*. 2020;99(5):e19060.

4. Ptaszkowski K, Malkiewicz B, Zdrojowy R, Paprocka-Borowicz M, Ptaszkowska L. The Prognostic Value of the Surface Electromyographic Assessment of Pelvic Floor Muscles in Women with Stress Urinary Incontinence. *J Clin Med*. 2020;9(6).
5. Leitner M, Moser H, Eichelberger P, Kuhn A, Radlinger L. Pelvic floor muscle activity during fast voluntary contractions in continent and incontinent women. *Neurourol Urodyn*. 2019;38(2): 625-31.
6. Brækken IH, Stuge B, Tveter AT, Bø K. Reliability, validity and responsiveness of pelvic floor muscle surface electromyography and manometry. *Int Urogynecol J*. 2021 Jun 17.
7. Kasper-Jędrzejewska M, Jędrzejewski G, Ptaszkowska L, Ptaszkowski K, Schleip R, Halski T. The Rolf Method of Structural Integration and Pelvic Floor Muscle Facilitation: Preliminary Results of a Randomized, Interventional Study. *J Clin Med*. 2020;9(12).

IT5. FUNCTIONAL DIAGNOSTICS OF PELVIC FLOOR MUSCLES

Lucyna Ptaszkowska¹, Małgorzata Pasternok¹, Martyna Kasper-Jędrzejewska¹, Kuba Ptaszkowski², Tomasz Halski¹

¹*Institute of Health Sciences, Opole University, Poland.*

²*Department of Clinical Biomechanics and Physiotherapy in Motor System Disorders, Faculty of Health Science, Wrocław Medical University, Poland.*

Functional diagnostics of pelvic floor muscles it should cover a wide range of methods that completely assess all structures that affect the pelvic floor.

Surface electromyography is a common, safe and non-invasive method to assess the condition of the pelvic floor muscles. With its help, we are able to assess not only the level of activity of the pelvic floor muscles themselves, but also other relationships that affect the overall functioning, including synergistic muscles responsible for the balance of muscles in the lower body region. The starting positions used for therapy should be checked in terms of their impact on the level of pelvic floor muscle tone. It is also worth paying attention to the diagnostic reference values emphasizing the role of sEMG in the diagnosis of pelvic floor dysfunction.

Another method used to evaluate the pelvic floor muscles is ultrasound. It is not a new method, however, more and more popular among physiotherapists. As a non-invasive and safe method, it is used to assess the activation of the abdominal wall muscles, most often the transverse abdominal muscle. Depending on the probe used and the access of applying the transducer, the therapist is able to determine the condition/topography of the pelvic organs (most often it concerns pelvic organ prolapse diagnostics - POP) or use it as a biofeedback to teach PFM contraction.

Another method is the elastography which is a new ultrasound-based imaging technique for visualizing soft tissue viscoelastic properties. It can produce an image based on tissue stiffness. We need to distinguish 2 types of elastography: strain elastography and shear wave elastography.

Keywords: Pelvic floor muscles. Diagnostics. Surface electromyography. Ultrasounds. Elastography.

REFERENCES

1. Ptaszkowski K, Zdrojowy R, Słupska L, Bartnicki J, Dembowski J, Halski T, et al. Assessment of bioelectrical activity of pelvic floor muscles depending on the orientation of the pelvis in menopausal women with symptoms of stress urinary incontinence: continued observational study. *Eur J Phys Rehab Med*. 2017;53(4): 564-74.
2. Ptaszkowski K, Malkiewicz B, Zdrojowy R, Paprocka-Borowicz M, Ptaszkowska L. The Prognostic Value of the Surface Electromyographic Assessment of Pelvic Floor Muscles in Women with Stress Urinary Incontinence. *J Clin Med*. 2020;9:1967.

3. Ptaszkowski K, Malkiewicz B, Zdrojowy R, Ptaszkowska L, Paprocka-Borowicz M. Assessment of the Short-Term Effects after High-Inductive Electromagnetic Stimulation of Pelvic Floor Muscles: A Randomized, Sham-Controlled Study. *J Clin Med*. 2020;9:874.
4. Ptaszkowski K, Zdrojowy R, Ptaszkowska L, Bartnicki J, Taradaj J, Paprocka-Borowicz M. Electromyographic evaluation of synergist muscles of the pelvic floor muscle depending on the pelvis setting in menopausal women: A prospective observational study. *Gait & Posture*. 2019;71:170-6.
5. Barr RG. *Elastography. A practical approach*, Thieme 2017.
6. Halski T, Ptaszkowski K, Słupska L, Dymarek R, Paprocka-Borowicz M. Relationship between lower limb position and pelvic floor muscle surface electromyography activity in menopausal women: a prospective observational study. *Clinical Interventions in Aging*. 2017;12:75-83.

IT6. PELVIC FLOOR FASCIA DYSFUNCTIONS WITHIN THE TENSEGRITY MODEL

Andrzej Pilat

Escuela de Terapias Miofasciales Tupimek. Escuela Universitaria de Fisioterapia de la ONCE. Universidad Autónoma de Madrid.

The pelvic floor represents a complex three-dimensional neuro-myo-fascial unit which, acting in synergy with the pelvic girdle structures, evolved into a dynamic system that keep the pelvic organs in proper location with suitable movements. This system is functionally capable to carry out with the static (posture), mobilization (gait and run), urination and defecation, copulation and fertilization, gestational development and delivery. The bony and muscular pelvis are interconnected to the hip and gluteal structures and altogether provide support to the internal organs and core muscles⁴. The anatomical and functional integrity (proper positioning and function) between all of the system components is more due to the 'dynamics' of the fascial system, rather than just its passive structural support. The pelvic floor myofascial structures provide support to the pelvic viscera and act in synergy with other myofascial pelvic girdle components.

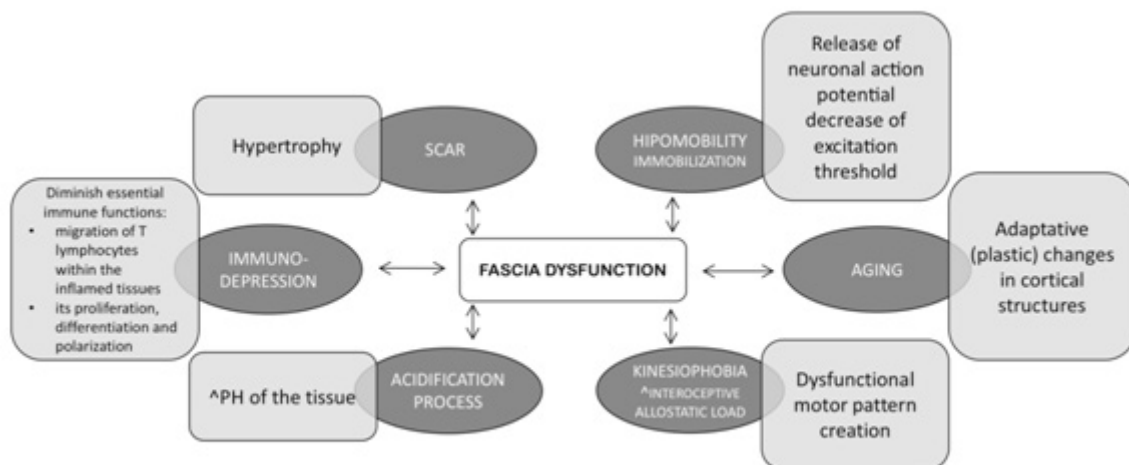
In the evolutionary process the verticalization of the spine has driven the need for morphological adjustments inside and between the pelvic floor structures. In the female body, the uterus and rectum changes to the most vertical position in relation to that of quadrupeds, when forced rectify the negative action of the forces

resulting from intra-abdominal pressure, added to the action of gravitational force⁷, which affected mainly the ligaments supports of rectal and intra-pelvic urogenital organs⁹.

"The fascial system is an uninterrupted continuum of fibers, submerged in the matrix that covers and penetrates the entire body, as a kind of three-dimensional continuity network, from the brain to the feet. The density, distribution and organoleptic characteristics of the system differ substantially throughout the organism but its continuity is fundamental: this allows the fascia to act as a synergistic whole, absorbing a local stimulus and distributing it to all parts of the system. In some cases of excessive and sudden efforts, the fascia can instantly regulate the degree of its tension, making possible otherwise unexplained feats (such as dancer jumps, extreme sports activities). It is the intrinsic structural synergy of the fascial system that allows the human body to be relatively independent from the gravitational force which would be impossible with a purely biomechanical explanation, which privileges the function of the arthrokinematics of skeleton and the muscles, describing them as a set of levers"⁷.

The continuity of the fascial system through the pelvic girdle facilitates the interaction with the endopelvic fascial structures. The myofascial components join the viscerofascia (structurally and functionally) creating the most complex functional integration system³. The main focus is placed on the dynamics of the endopelvic ligamentous system. Traditionally, the analysis of the aforementioned ligaments and their functions is similar to that applied to the ligaments of the joint: they are considered as thick bundles formed by a dense, regular connective tissue and its suspensory function is emphasized in relation to the intrapelvic organs. In this sense the endopelvic ligaments should allow relative mobility to the visceral structures, while maintaining their proper positioning.

The conceptual model that is closer to explain the complex functional anatomy and biomechanics behavior of the pelvic floor in demand of constant adjustment, could be the myofascial tensegrity model. Tensegrity is a structural system popularly recognized for its distinct compression elements that appear to float within a tensioned network⁸. The forces applied at any point of the system, are transmitted to all the other constituents. The deformations are distributed in all the elements and the whole system reacts in a global way. "A tensegristic structure can be oriented in all directions, without appreciating variations by the weight distribution of its elements. The ligamentous system of the endopelvic fascia represents this type of construction. While the ligaments maintain a balanced, shared and symmetric tension, the system acts efficiently. This finding supports the hypothesis that the connective tissue (en-



dopelvic fascia) is essential and integral to the construction of the pelvic floor and its proper behavior⁷⁷.

Injury to tissues will cause changes in the tensional equilibrium, altering structural configuration and therefore function⁸. The most common processes that can lead to fascial dysfunction are summarized in the figure.

The manual therapy, in different modalities, is an effective tool in therapeutic protocols. The Myofascial Induction Therapy (MIT) allows to improve the functions of the pelvic floor and help in pain control^{1,2,5}.

Fascia Dysfunctional Process Interrelations.

Keywords: Fascia. Tensegrity. Myofascial induction therapy (MIT). Pelvic floor.

REFERENCES

1. Chamorro Comesaña A, Suárez Vicente MD, Docampo Ferreira T, Pérez-La Fuente Varela MD, Porto Quintáns MM, Pilat A. Effect of myofascial induction therapy on post-c-section scars, more than one and a half years old. Pilot study. *J Bodyw Mov Ther.* 2017; 21(1):197-204.
2. Crowle A, Harley C. Development of a Biotensegrity Focused Therapy for the Treatment of Pelvic Organ Prolapse: A Retrospective Case Series. *Journal of Bodywork and Movement Therapies.* 2020;24 (1):115-125.
3. de las Peñas & Pilat. Myofascial Induction in: Chaitow & Lovegrove: Practical Physical Medicine Approaches to Chronic Pelvic Pain (CPP) & Dysfunction, Churchill Livingstone, 2011.
4. Eickmeyer SM. Anatomy and Physiology of the Pelvic Floor. *Phys Med Rehabil Clin N Am.* 2017;28(3):455-460.
5. Grinberg K, Weissman-Fogel I, Lowenstein L, Abramov L, Granot M. How Does Myofascial Physical Therapy Attenuate Pain in Chronic Pelvic Pain Syndrome? *Pain Res Manag.* 2019;6091257. doi: 10.1155/2019/6091257.
6. Levin SM Biotensegrity. Disponible en: <http://biotensegrity.com>
7. Pilat A. Myofascial Induction. An anatomical Approach to the treatment of fascial dysfunction. Handspring Publishing. Edinburgh (in press), 2021.
8. Scarr G. Biotensegrity The Structural Basis of Life. Handspring Publishing, UK, 2018.
9. Winckler G. The different aspects of Anatomy in the course of its evolution. *Rev Med Suisse Romande.* 1953;73(3):166-76.

IT7. MANUAL THERAPY AS AN INTEGRATED TREATMENT IN URINARY INCONTINENCE

Teresa Paolucci¹, Camillo di Giulio², Raoul Saggini¹

¹Unit of Physical Medicine and Rehabilitation, Department of Medical and Oral Sciences and Biotechnologies (DSMOB), G. d'Annunzio University of Chieti-Pescara, Chieti, Italy.

²Department of Neuroscience and Imaging, "Gabriele D'Annunzio" University, Chieti-Pescara, Italy.

Dysfunctions of the pelvic floor related to mixed urinary incontinence (MUI) in women are pathologies extremely limiting for patients bodily and psychosocial conditions, altering their quality of life. The therapeutic rehabilitative goals in MUI are i) improving the perception and relaxation of the pelvic floor ii) treat both external and endovaginal triggers and tender points iii) re-automation of pelvic floor release/recruitment and iv) improving muscle strength during voluntary perception. The focal mechanical vibration (VISS) can represent a resource for the rehabilitation of the pelvic floor in the patient with MUI, and from the literature, a profile of greater efficacy emerges when it is associated with manual therapy. VISS stimulate tensegrity and mechano transduction in pelvic muscles according to the muscle tuning theory. The rehabilitative protocol considers 10 sessions, 3 times per week for the first 2 weeks and then twice weekly for the next 2 weeks (frequency of 300 Hz for 15 minutes) at the

level of the rectus abdominis, adductor muscles, gluteus, quadratus lumborum and perineal area. Neuromuscular manual therapy, in MUI, it is mainly aimed at the treatment of following muscles: diaphragm, iliopsoas, square of loins, piriformis muscle, the sacrotuberous and sacrospinous ligaments. The protocols suggested, according to the literature, includes a rehabilitative session of 1 hour. The techniques apply a progressive and firm pressure along the area of myofascial dysfunction in transversal, parallel, and compressive directions with respect to muscles fibers. The whole therapeutic protocol suggested is of 8 sessions (twice a week) for 4 weeks. An improvement in incontinence symptoms and quality of life for the Pelvic Floor Disability Index-20 and Pelvic Floor Impact Questionnaire -7 scores were reported by the scientific evidences. Also, the two rehabilitative protocols in association may favor muscles stiffness and improving the normalization of basal tone.

Keywords: Exercise. Pelvic muscle training. Physical therapy. Posture. Rehabilitation. Urinary incontinence.

REFERENCES

1. Paolucci T, Bellomo RG, Pezzi L, Frondaroli F, Frondaroli S, Santarelli A, et al. A Novel Rehabilitative Protocol in the Treatment of Mixed Urinary Incontinence in Women: The Effects of Focused Mechano-Acoustic Vibration. *Biores Open Access.* 2019;8(1):219-28.
2. Barassi G, Bellomo RG, Frondaroli F, Frondaroli S, Santarelli A, Di Felice PA, et al. Integrated Rehabilitation Approach with Manual and Mechanic-Acoustic Vibration Therapies for Urinary Incontinence. *Adv Exp Med Biol.* 2019;1211:41-50.

IT9. MANUAL THERAPY IN THE TREATMENT OF CHRONIC PELVIC PAIN

Raoul Saggini¹, Teresa Paolucci¹

¹Unit of Physical Medicine and Rehabilitation, Department of Medical and Oral Sciences and Biotechnologies (DSMOB), G. d'Annunzio University of Chieti-Pescara, Chieti, Italy.

²Department of Neuroscience and Imaging, "Gabriele D'Annunzio" University, Chieti-Pescara, Italy.

Chronic pelvic pain (CPP) in women is defined as persistent, non-cyclic pain perceived to be in structures related to the pelvis and lasting more than six months. Often no specific etiology can be identified, and it can be conceptualized as a chronic regional pain syndrome or functional somatic pain syndrome. Use of manual therapies in the treatment of pelvic pain is a common practice. The rationale for use of manual therapies is often associated with the structural movement of the sacroiliac joint. On the other hand, according to the literature, the muscles and structures selected for manual therapy in CPP are the rectum of the abdomen, diaphragm, lumbar-ileum ligaments, sacroiliac ligament, sacrotuberous ligament, iliopsoas, piriform, and quadratus lumborum. These structures are treated by specific direct techniques and, specifically, once the tissue was prepared through superficial massage techniques, direct strokes were performed: stripping, deep transversal friction, longitudinal friction, and pincer pressure. The stripping technique consists of a progressive and firm pressure along the area of myofascial dysfunction. The deep transversal friction is a deep muscular fiber stimulation by pressure in the transversal direction. The longitudinal friction technique is similar, and is applied in the same direction of muscular fibers. The pincer technique consists of a pincer palpation to individuate dysfunctional areas to be treated with higher pressure, applied in the same position.

The manual techniques are aimed at reducing pain through the identification of tenders and trigger points and to increase flexibility and reduce tension. The sessions, often, include soft tissue mobilizations and myofascial release (20 min) to improve circulation, restore tissue integrity, decrease ischemia, and decrease adverse neural tension.

Additionally, the distinction between acute and chronic pelvic pain, the available treatment strategies and the impact of behavior on pain experience need to be shared with the patient.

Keywords: Chronic pelvic pain. Physiotherapy. Sensitization. Manual therapy.

REFERENCES

1. Miles D, Bishop M. Use of Manual Therapy for Posterior Pelvic Girdle Pain. *PM R*. 2019;11(Suppl 1): S93-S97.
2. Ariza-Mateos MJ, Cabrera-Martos I, Ortiz-Rubio A, Torres-Sánchez I, Rodríguez-Torres J, Valenza MC. Effects of a Patient-Centered Graded Exposure Intervention Added to Manual Therapy for Women With Chronic Pelvic Pain: A Randomized Controlled Trial. *Arch Phys Med Rehabil*. 2019;100(1):9-16.
3. Barassi G, Bellomo RG, Porreca A, Di Felice PA, Prosperi L, Saggini R. Somato-Visceral Effects in the Treatment of Dysmenorrhea: Neuromuscular Manual Therapy and Standard Pharmacological Treatment. *J Altern Complement Med*. 2018;24(3):291-9.

IT11. MUSCULAR MYTHS AND FASCIAL FACTS. A SPECIFIC TRAINING APPROACH FOR THE COLLAGENOUS TISSUES OF THE PELVIC FLOOR

Divo Gitta Müller

Somatics Academy GbR. Robert Schleip PhD, Gitta Müller HP, Munich, Germany.

Modern medicine has almost completely forgotten the importance of the collagenous tissues for healthy pelvic floor function. In this presentation Divo G. Müller complements the conventional, rather muscular view with the fascial component based upon actual findings of fascia research. Learn about surprising fascial facts leading to an in-depth understanding about the importance of a specific connective tissue training and its application for prevention and rehabilitation. In the past we used to train isolated pelvic floor muscles. Nowadays we understand the significance of the three-dimensional fascial network and the tensional forces which are transmitted across several joints. In relation to the pelvic floor, we target three different functional layers, applying tensile forces into the back, abdomen and legs. If these chains are well-toned, then the pelvic floor will be so too. Prolaps, descensus and incontinence are associated with a loss of resilient elasticity as well as of supple flexibility. All of which are fascial features. Throughout aging, surgery or due to hormonal changes, the former juvenile bouncy trampoline tends to turn into a floppy hammock. In this presentation, we look into the storage capacity of collagenous tissues, healthy tissue architecture and the negative effects of fibrosis. We aim at fostering the training component of rebound elasticity within its three specific aspects: energy conservation, power attenuation and of dampening as a training protocol for the fascial tissues of the pelvic floor.

REFERENCES

1. Schleip R, Müller G, Parisi B. Fascial Fitness. In: Schleip R, Wilke J (eds.). *Fascia in Sport and Movement*, 2nd ed, Handspring Publishing, 2021; p. 269-80.
2. Ramin A, et al. Fascial continuity of the pelvic floor with the abdominal and lumbar region. *Pelviperrineology*. 2015;35:3-6.
3. Hoffren-Mikkola M, et al. Neuromuscular mechanics and hopping training in elderly. *Eur J Appl Physiol*. 2015;115:863-77.

IT12. EFFECTIVENESS OF PELVIC FLOOR MUSCLE TRAINING, TRANSVERSUS ABDOMINIS MUSCLE, PILATES, AND YOGA IN THE PREVENTION OR TREATMENT OF URINARY INCONTINENCE (EVIDENCE SYNTHESIS)

Gloria González-Medina, Verónica Pérez Cabezas, Carmen Ruiz Molinero, Carlos Luque Moreno,

José Antonio Moral Muñoz, Petronila Oliva Ruiz, Inés Carmona Barrientos, Alejandro Galán-Mercant
University of Cadiz.

Objectives: To determine the effectiveness of the pelvic floor muscle training (PFMT), transversus abdominis (TrA) isolated or combined, Pilates and Yoga training in the prevention or treatment of urinary incontinence (UI). Moreover, we wanted to offer an overview about the current knowledge about the types of trainings focused on UI, and identify which are the areas in which further evidence is needed.

Methods: An umbrella review was performed, according to the Joanna Briggs Institute reviewer's manual. This review is focused on retrieve and analyse the systematic reviews and meta-analyses reporting those syntheses about the effectiveness of the PFMT, TrA, Yoga, and Pilates. Studies analysing the combined therapy with biofeedback, electrical stimulation, or any other advice were excluded. The search was performed on the bibliographic database PubMed in July 2019. The following search strategy was employed to retrieve the records: (("Pelvic Floor Disorders"[Mesh] OR "Pelvic Floor Disorders"[Title/Abstract]) OR ("Pelvic Floor"[Mesh] OR "Pelvic Floor"[Title/Abstract])) AND (("Abdominal Muscles"[Mesh] OR "Abdominal Muscles"[Title/Abstract]) OR ("Abdominal Oblique Muscles"[Mesh] OR "Abdominal Oblique Muscles"[Title/Abstract]) OR ("Musculoskeletal System"[Mesh] OR "Musculoskeletal System"[Title/Abstract]) OR ("Rectus Abdominis"[Mesh] OR "Rectus Abdominis"[Title/Abstract])). The Rayyan Online Platform (<https://rayyan.qcri.org/>) was used by three independent reviewers to perform the study selection process. In case of discrepancies, the reviewers solved them by consensus. Figure 1 shows the process followed to obtain the final records included. The quality of the reviews and meta-analyses included in this umbrella review was assessed using the A MeaSurement Tool to Assess Systematic Reviews (AMSTAR 2) scale (1).

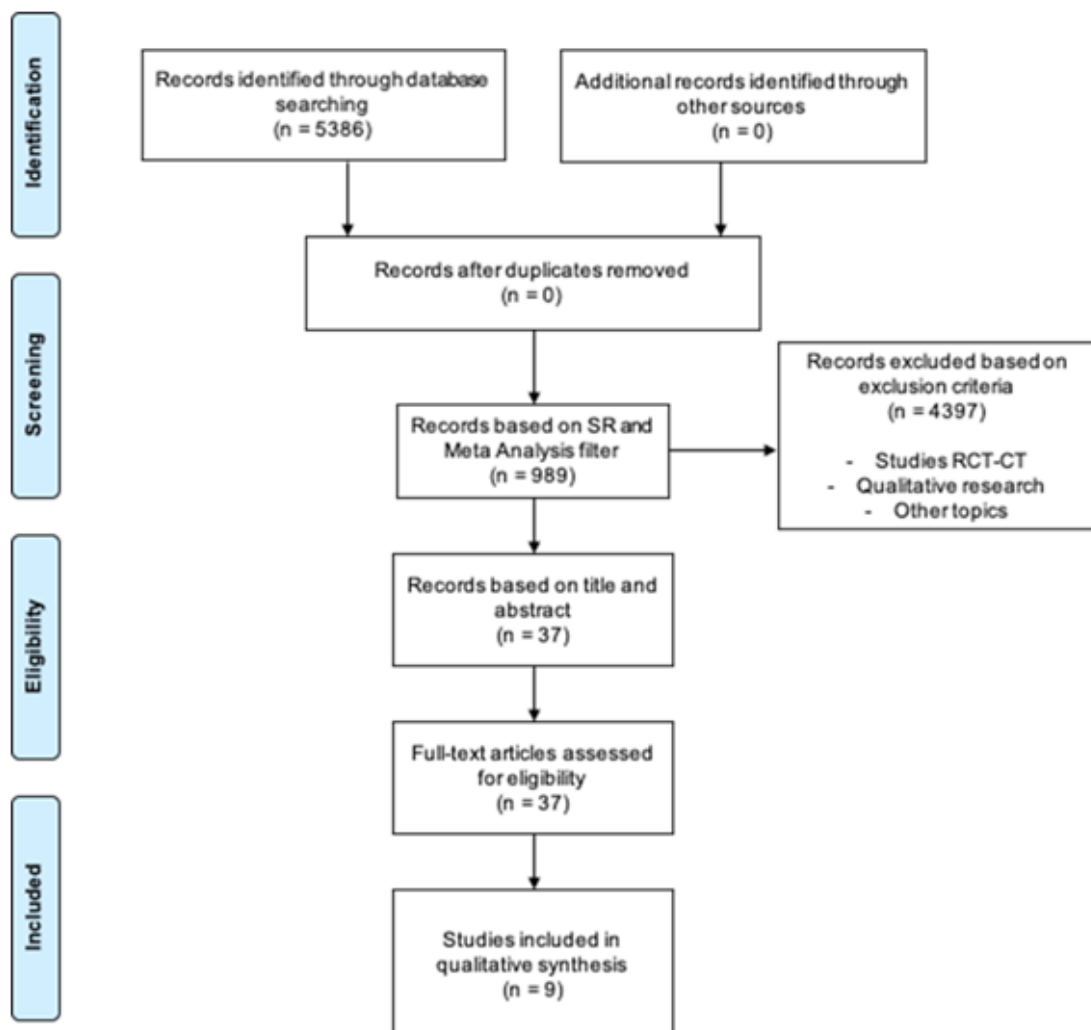
Results: 9 systematic reviews and meta-analyses conform the present review of reviews. Specifically, there are 2 Cochrane reviews, 4 systematic reviews, 2 systematic reviews and meta-analyses, and 1 scoping review. These studies were published between 2009 and 2019. Most of the studies included are about PMFT, so the findings about the TrA, Yoga and Pilates training is still scarce. Only one of the studies reported (2)less commonly, urge urinary incontinence. The supervision and content of pelvic floor muscle training programmes are highly variable, and some programmes use additional strategies in an effort to increase adherence or training effects. **OBJECTIVES:** To compare the effects of different approaches to pelvic floor muscle training for women with urinary incontinence. **SEARCH METHODS:** We searched the Cochrane Incontinence Group Specialised Trials Register, which contains trials identified from the Cochrane Central Register of Controlled Trials (CENTRAL internal sources of funding with apparent conflicts of interest. Onwude 2009 (3): PFMT. Hay-Smith EJC et al. 2011 (2)less commonly, urge urinary incontinence. The supervision and content of pelvic floor muscle training programmes are highly variable, and some programmes use additional strategies in an effort to increase adherence or training effects. **OBJECTIVES:** To compare the effects of different approaches to pelvic floor muscle training for women with urinary incontinence. **SEARCH METHODS:** We searched the Cochrane Incontinence Group Specialised Trials Register, which contains trials identified from the Cochrane Central Register of Controlled Trials (CENTRAL: PFMT. Greer JA. et al. 2012 (4)urinary frequency, and nocturia. Data from 13 full-text trials including the modalities of pelvic floor muscles exercises with or without biofeedback, vaginal electrical stimulation, magnetic stimulation, and vaginal cones were analyzed. The methodologic quality of these trials was fair. Significant improvement in UUI was reported for all physiotherapy techniques except vaginal cone therapy. There are insufficient data to determine if pelvic physiotherapy improves urinary frequency or nocturia. Evidence suggests that physiotherapy techniques may be beneficial for

the treatment of UUI. ", "author": [{"dropping-particle": "", "family": "Greer", "given": "Joy A", "non-dropping-particle": "", "parse-name-s": false, "suffix": ""}, {"dropping-particle": "", "family": "Smith", "given": "Ariana L", "non-dropping-particle": "", "parse-names": false, "suffix": ""}, {"dropping-particle": "", "family": "Arya", "given": "Lily A", "non-dropping-particle": "", "parse-names": false, "suffix": ""}], "container-title": "International urogynecology journal", "id": "ITEM-1", "issue": "6", "issued": {"date-parts": [{"2012", "6"}]}, "page": "687-97", "title": "Pelvic floor muscle training for urgency urinary incontinence in women: a systematic review.", "type": "article-journal", "volume": "23", "uris": [{"http://www.mendeley.com/documents/?uuid=3798f5d4-dd04-4aaa-aff9-5a1c22dd72a4"}]}, "mendeley": {"formattedCitation": "(4: PFMT. Kari Bø et al. 2013 (5): PFMT, TrA, Pilates. Moroni et al. 2016 (6): PFMT, TrA. Paiva et al. 2017 (7): PFMT. Dumoulin et al. 2018 (8): PFMT. Radzimińska et al. 2018 (9): PFMT, TrA. Sha et al. 2019 (10) "IS SN": "15577708", "abstract": "Background and objectives: Yoga is a mind and body practice that includes relaxation, meditation, breathing exercises, and body postures. It can be effective in enhancing the functioning of several body systems, including the lower urinary tract. Normal lower urinary tract functioning depends in part on the coordination of the bladder, urethra, pelvic floor and other muscles, and the nerves that control them. Lower urinary tract dysfunction can lead to symptoms, that is, stress urinary incontinence (UI: Yoga. For the intervention with PFMT, the outcome with the highest number of RCTs is the Leakage (24h) with 12 re-

cords. This is the only outcome with sufficient evidence and it is supported by high quality RCTs. From the rest of the outcomes, positive effects were found for quality of life and the Incontinence Modular Questionnaire Urinary Incontinence. Nevertheless, the quality of the evidence supporting all the outcomes is low and a higher number of well conducted RCTs is needed. Concerning the intervention with TrA training, no isolated interventions were found. Only an RCT comparing the combined training of the TrA with PFMT versus the PFMT was found in the revisions. Furthermore, the conclusions of this article were not favourable to the combined therapy. The quality of the RCTs was low and the evidence is insufficient to support the intervention with TrA training isolated or combined with PMFT.

Conclusions: In general, the PMFT programmes are the interventions with a higher number of RCTs, so with higher evidence. Nevertheless, the quality of the RCTs is low in most of the studies. Although the number of RCTs is high, only the variable Leakage (24h) has sufficient evidence. There is no evidence for the TrA training isolated. It could be trained in conjunction to PMFT; there is a co-contraction of the TrA during the contraction of the pelvic floor, but the contraction of the pelvic floor during the TrA training may be lost in UI. Pilates and Yoga as clinical intervention is not well supported by scientific evidence. There is only a RCT that found positive effects in frequency with Yoga intervention.

Keywords: Pelvic floor muscle training. Transversus abdominis muscle. Pilates. Yoga. Prevention. Treatment. Urinary incontinence.



REFERENCES

1. Shea BJ, Reeves BC, Wells G, Thuku M, Hamel C, Moran J, et al. AMSTAR 2: a critical appraisal tool for systematic reviews that include randomised or non-randomised studies of health-care interventions, or both. *BMJ*. 2017;358:j4008.
2. Hay-Smith EJC, Herderschee R, Dumoulin C, Herbison GP. Comparisons of approaches to pelvic floor muscle training for urinary incontinence in women. *Cochrane Database Syst Rev*. 2011;12:CD009508.
3. Onwude JL. Stress incontinence. *BMJ Clin Evid*. 2009;2009:0808.
4. Greer JA, Smith AL, Arya LA. Pelvic floor muscle training for urgency urinary incontinence in women: a systematic review. *Int Urogynecol J*. 2012;23(6):687-97.
5. Bø K, Herbert RD. There is not yet strong evidence that exercise regimens other than pelvic floor muscle training can reduce stress urinary incontinence in women: A systematic review. *J Physiother*. 2013;59(3):159-68.
6. Moroni R, Magnani P, Haddad J, Castro R, Brito L. Conservative Treatment of Stress Urinary Incontinence: A Systematic Review with Meta-analysis of Randomized Controlled Trials. *Rev Bras Ginecol Obs*. 2016;38(2):97-111.
7. Paiva LL, Ferla L, Darski C, Catarino BM, Ramos JGL. Pelvic floor muscle training in groups versus individual or home treatment of women with urinary incontinence: systematic review and meta-analysis. *Int Urogynecol J*. 2017;28(3):351-9.
8. Dumoulin C, Hay-Smith J. Pelvic floor muscle training versus no treatment, or inactive control treatments, for urinary incontinence in women. *Cochrane Database Syst Rev*. 2010;(1):CD005654.
9. Radzińska A, Strączyńska A, Weber-Rajek M, Styczyńska H, Strojek K, Piekorz Z. The impact of pelvic floor muscle training on the quality of life of women with urinary incontinence: a systematic literature review. *Clin Interv Aging*. 2018;13:957-65.
10. Sha K, Palmer MH, Yeo SA. Yoga's Biophysiological Effects on Lower Urinary Tract Symptoms: A Scoping Review. *J Altern Complement Med*. 2019;25(3):279-87.

IT13.DOLOR PÉLVICO CRÓNICO: CAMBIANDO DE PARADIGMA

Esther Díaz-Mohedo

Universidad de Málaga.

El dolor pélvico crónico (DPC) se define clásicamente como el dolor crónico/persistente percibido (tanto por el paciente como por el examinador) en estructuras relacionadas con la pelvis de hombres o mujeres durante más de seis meses en ausencia de infección u otra patología visceral que lo explique¹. A menudo está asociado

con consecuencias negativas cognitivas, comportamentales, sexuales y emocionales² así como con síntomas de disfunciones del sistema urinario, sexual, intestinal o ginecológico³. El día a día con este tipo de pacientes nos sitúa ante situaciones clínicas en las que, el grado de discapacidad, el impacto que dicha situación marca en la vida social y laboral del paciente, la dificultad de su tratamiento así como el consumo de recursos económicos, dibujan un perfil bastante complejo de abordar.

Son numerosos los textos que comienzan este apartado con la palabra “desconocida”. Sin embargo, en este caso y ante el análisis de las posibles causas del DPC, se anima a considerar la siguiente propuesta en la que se apuesta por diferenciar entre factores desencadenantes, predisponentes y perpetuantes del DPC⁴ (tabla).

Aunque existen estrategias terapéuticas “aparentemente” consolidadas, es frecuente que el DPC se encuentre infratratado o que los resultados no sean los deseados porque, o bien no se valora ni se abordan meticulosamente en el momento indicado cada uno de los posibles factores desencadenantes, o se pasan por “alto” los factores predisponentes y/o perpetuantes y/o no se conocen bien los mecanismos implicados en el desarrollo del dolor y sus principios de tratamiento.

El abordaje de la disfunción de suelo pélvico dominada por este fenómeno necesitará integrar el enfoque conservador actual con un enfoque neurobiológico que dé cabida a técnicas destinadas a restablecer la reorganización de la corteza así como a educar al SNC sobre percepciones dolorosas anómalas⁵.

Existe demostrada evidencia de que cuando el dolor persiste, hay un cambio en la topografía cortical de la parte del cuerpo afectado, existiendo relación entre esta reorganización cortical y la intensidad del dolor, calidad y amplitud del movimiento voluntario y visualización del mismo; se habrá de tener en cuenta que la plasticidad que sustenta dichos cambios instaurados en el tiempo será, por ende, la clave para la orientación terapéutica en estos casos. Todo ello implica que hay un cerebro con recursos para quitar y poner dolor según convenga (según su criterio, no el del individuo) y que puede ser el responsable de cuadro crónico que nos ocupa.

Emerge un marco teórico, por tanto, que deja atrás la clasificación del paciente según la temporalidad en la que el dolor ocurrió (agudo-crónico), sino más bien en función de la manifestación clínica de dolor que el paciente presenta en el cual, el potente sistema del estrés y las funciones cognitivas del cerebro, además de los estímulos sensoriales tradicionales, modulan una red neuronal (neumatriz) genéticamente determinada para la conciencia corporal y la conducta del dolor⁶, sin cuya consideración probablemente los tratamientos estén avocados al fracaso.

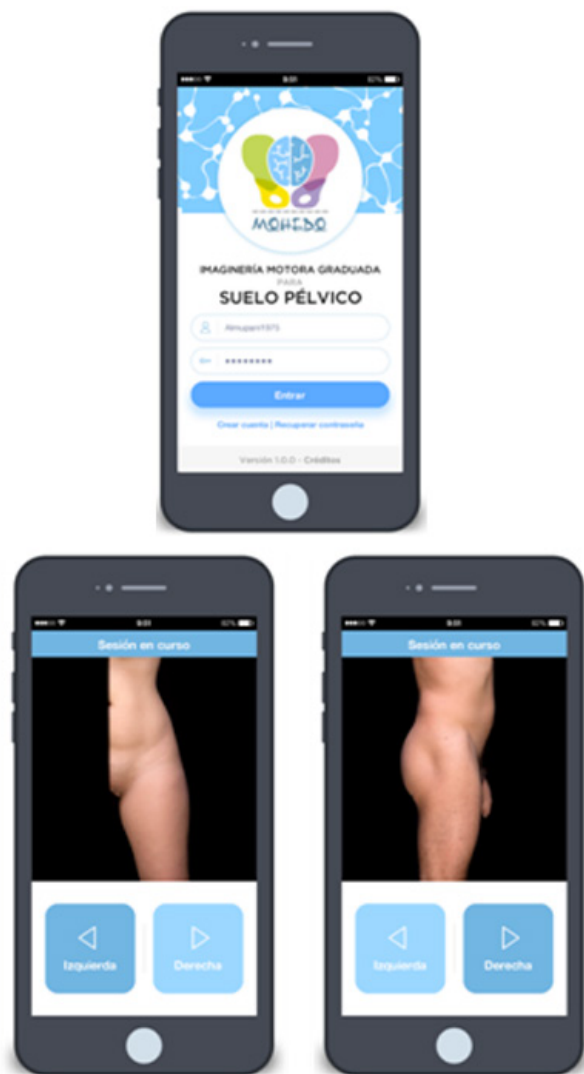
Se recomienda incluir, por tanto, técnicas que contemplen la educación del paciente siempre que existan cogniciones maladaptativas sobre el dolor, la percepción de enfermedad (o incapacidad) y las estrategias de afrontamiento ante el mismo.

Con el objetivo de activar de forma secuencial las redes corticales motoras sin desencadenar los mecanismos de dolor y mejorar la

Factores etiológicos en el dolor pélvico crónico

Factores desencadenantes	Factores predisponentes	Factores perpetuantes
Endometriosis	Factores genéticos	Psicosociales:
Enfermedad pélvica inflamatoria	Abusos sexuales	Ansiedad
Adherencias posquirúrgicas	Traumas en la infancia	Depresión
Cistitis intersticial	Primeras experiencias sexuales precoces y/o traumáticas	Catastrofización
Estreñimiento		Creencias maladaptativas
Enfermedad inflamatoria intestinal		Sensibilización central
Síndrome de colon irritable		Neuroplasticidad del sistema nervioso central
Neuropatía del pudendo		
Alteraciones miofasciales		

organización cortical, se recomienda elaborar un programa de rehabilitación integral diseñado en varias etapas (restauración de la lateralidad, imaginaria motora, y terapia espejo) que ayude a extinguir la memoria del dolor “restaurando” el cuerpo virtual del paciente mediante la reconciliación de las respuestas motora con la información sensorial, activación del sistema de neuronas espejo y activación gradual de los circuitos motores corticales. En relación a ello, surge esta conferencia que da a conocer la reciente creación de App-Mohedo[®], diseñada para dispositivos móviles (Iphone y Android), fundamentada en las técnicas de imaginaria motora graduada y diseñada específicamente para el entrenamiento y trabajo de la lateralidad en disfunciones de suelo pélvico que cursan con dolor crónico (fig.).



Pantallas de la App de Imaginería Motora Graduada para DPC: APP-MOHEDO[®].

En conclusión, cada paciente que busca tratamiento para su DPC, no es solo una entidad biológica, sino una persona con actividades profesionales, responsabilidades, metas y compromisos, que nos plantea un auténtico reto y desafío: un cambio de paradigma en el que prime un tratamiento multidimensional que incorpore a las técnicas manuales, estrategias de estimulación del cuerpo virtual, cognitivo-conductuales y de exposición gradual que permitan una reorganización cortical y disminución del dolor.

Palabras clave: Chronic Pelvic Pain. Physiotherapy. Graded Motor Imagery. App.

REFERENCIAS

1. AEU- European Association of Urology. Guidelines on Chronic Pelvic Pain [Internet]. rnhem, The Netherlands; 2018. Disponible en: <http://uroweb.org/guideline/chronic-pelvic-pain/>
2. Panisch LS, Tam LM. The Role of Trauma and Mental Health in the Treatment of Chronic Pelvic Pain: A Systematic Review of the Intervention Literature. *Trauma Violence Abuse*. 2020;21(5):1029-43.
3. Baranowski APaul. Chronic pain mechanisms. En: *Chronic Pelvic Pain Dysfunction Practical Physical Medicine*. Churchill Livingstone Elsevier; 2013.
4. Chaitow L, Lovegrove R. Chronic pelvic pain and dysfunction. *Practical Physical Medicine*. Churchill Livingstone; 2012.
5. Moseley GL, Flor H. Targeting cortical representations in the treatment of chronic pain: a review. *Neurorehabil Neural Repair*. 2012;26(6):646-52.
6. Melzack R. Evolution of the neuromatrix theory of pain. The Prithvi Raj Lecture: presented at the third World Congress of World Institute of Pain, Barcelona 2004. *Pain Pract Off J World Inst Pain*. 2005;5(2):85-94.

IT14. COGNITIVE BEHAVIORAL THERAPY FOR THE TREATMENT OF PELVIC FLOOR DYSFUNCTIONS: PSYCHOLOGICAL FACTORS AND THERAPEUTIC TECHNIQUES

Begoña Ojeda Ballesteros

Barna Dolor/Instituto Craneomandibular Doctor Vázquez. Barcelona.

According to the World Health Organization (WHO), health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. For this reason, it is essential to incorporate the biopsychosocial paradigm into the treatment of all diseases. In many cases, pelvic floor dysfunction, in whichever form, sweepingly affects the life of the patients. It is conceived as a lack of health which generates feelings of anger and sadness, as well as embarrassment and depression. Patients avoid social gatherings and lose self-confidence, which has a proportional impact on their social interactions, their sexual life and emotional health. The co-occurrence of pelvic floor dysfunctions and psychological distress is an important factor in both evaluation and treatment. Understanding and treating psychological factors is not only important to improve the patient's quality of life, but these factors have a direct implication on the symptoms of pelvic and urogenital dysfunction, and influence the way the patient copes with it. The destructive consequences of pelvic floor dysfunction to the psychology and the sexual and social life of the patients, requires a change in the way of thinking with regards diagnosis and treatment of this quite wide-spread disorders. And even though full recovery is not always feasible, important improvement may usually be achieved in most patients, so that a normal way of life can be maintained. From the cognitive-behavioral approach, psychology has therapeutic strategies that can help the patient with the management of pelvic floor dysfunction.

Keywords: Pelvic floor dysfunction. Psychological health. Depression. Anxiety. Cognitive behavioral therapy.

REFERENCES

1. Aceto S, Cerro CR, España-Pons M. Dolor pélvico crónico: impacto psicológico y sobre la función sexual. *Suelo Pélvico*, 2013;9(1).
2. Heymen S. Psychological and cognitive variables affecting treatment outcomes for urinary and fecal incontinence. *Gastroenterology*. 2004;126:S146-S151.
3. Mousavi Nasab M, Farnoosh Z. Management of vaginismus with cognitive-behavioral therapy, self-finger approach: a study of 70 cases. *Iranian Journal of Medical Sciences*. 2015;28(2):69-71.

4. Till SR, As-Sanie S, Schrepf A. Psychology of chronic pelvic pain: prevalence, neurobiological vulnerabilities, and treatment. *Clinical Obstetrics and Gynecology*. 2019;62(1):22.
5. Trantafylidis SCA. Impact of urinary incontinence on quality of life. *Pelviperrineology*. 2009;28(28):51-3.

IT15. LITERATURE REVIEW GUIDELINES FOR PATIENTS WITH URINARY INCONTINENCE

Verónica Pérez Cabezas, Alejandro Galán-Mercant, Carmen Ruiz Molinero, Carlos Luque Moreno, José Antonio Moral Muñoz, Petronila Oliva Ruiz, Inés Carmona Barrientos, Gloria González-Medina

University of Cádiz.

Objectives: To analyse and evaluate urinary incontinence guidelines for patients and to establish the basis for the development of a new guideline on urinary incontinence for patients.

Methods: A literature search was conducted on Google, simulating the search that a patient would do at home (Table 1). Inclusion criteria were established as follows: guidelines for patients focused on the elderly; guidelines that had been produced by scientific bodies, associations or some other type of organisation -such as hospitals- that contributed scientific value to the document. And as exclusion criteria: guides that could not be downloaded directly from the website; guides focused on healthcare personnel or informal caregivers; guides for information on urinary containment products; guides with paid access; guides for patients whose information is only surgical or pharmacological; guides for patients with specific pathologies such as Parkinson's, stroke, dementia or cancer, among others; guides for patients with sequelae due to incontinence. The Suitability Assessment of Materials (SAM+CAM) tool was used to analyse the design, content and comprehension of the documents. It scores the documents between 0 and 44 points. The result is classified as: 70-100% superior material; 40-69% adequate material; 0-39% not suitable material. The Patient Education Materials Assessment Tool PEMAT-P version (for printable materials) was also used. The user guide can be viewed and downloaded at: <https://www.ahrq.gov/professionals/prevention-chronic-care/improve/self-mgmt/pemat/%20/index.html>. For automatic scoring of the documents assessed with PEMAT-P, the form available at: http://www.ahrq.gov/professionals/prevention-chronic-care/improve/self-mgmt/pemat/pemat/pemat_form.xls was used.

Keywords: In terms of content, the summarised results can be seen in table 2. If we look at the results of each tool separately, according to SAM, the best guide is "Bladder Matters. A Guide to Managing Overactive Bladder" as with PEMAT. The tools used for the methodological assessment of the guidelines have a number of intrinsic limitations. The combination of two tools SAM and PEMAT has been tried to remedy this, although one of the main limitations, subjectivity, cannot be corrected.

Conclusions: Information guidelines for incontinence patients are adequate, but the focus on the patient who will use them, patient autonomy in decision-making, understanding and actionability need to be improved. In addition, they should take into account the fol-

lowing aspects: Content: make its purpose fully evident. The behaviours/knowledge/skills that we want the patient to acquire by reading the guide should be well indicated. The information should focus directly on the purpose of the guide. Include summaries or reviews. Require literacy: The literacy level of the text should be very simple. Writing style should be in active voice and conversational style. Use common words. Do not use technical language. Precontextualise the information to be presented. Present information in a logical sequence. Use learning aids. Organise information into short sections. Use numbers: The numbers in the material should be clear and easy to understand. The user should not have to perform calculations. Use visual aids: If a representation is included on the cover page, it should show the purpose of the guide. If graphics are used, they should be of appropriate lines or designs familiar to readers. Illustrations should be relevant. Illustrations and photographs should be clear and uncluttered so that the user understands the content. All graphs, illustrations, lists or tables should have an explanatory caption. Stimulate learning, motivation and action competence: Interaction with the reader should be sought. Material should directly address the user when describing actions. To increase motivation and self-efficacy, complex topics should be subdivided into small parts. The material should provide a tangible tool. Culture: The core concepts/ideas of the guide should be consistent in logic, language and experience with the culture of the target user. The profile, illustrations and examples should be culturally positive, always avoiding negative images such as exaggerated or caricatured cultural characteristics, actions or examples. It should be accompanied by explanatory text indicating that the guide is informative and that a health professional should be consulted.

REFERENCES

1. Beaunoyer E, Arsenault M, Lomanowska AM, Guitton MJ. Understanding online health information: Evaluation, tools, and strategies. *Patient Educ Couns*. 2017;100(2):183-9.
2. Haylen BT, Ridder D de, Freeman RM, Swift SE, Berghmans B, Lee J, et al. An International Urogynecological Association (IUGA)/International Continence Society (ICS) Joint Report on the Terminology for Female Pelvic Floor Dysfunction. *Neuro-Urology Urodyn*. 2010;29:4-20.
3. Thüroff JW, Abrams P, Andersson KE, Artibani W, Chapple CR, Drake MJ, et al. EAU guidelines on urinary incontinence. *Eur Urol*. 2011;59(3):387-400.
4. Abrams P, Cardozo L, Wagg A, Wein AJ (Editors). *Incontinence*. 2017. 2636 p.
5. The Ohio State University. AHEC Clear Health Communication Program. Who's Reading Your Writing : How Difficult Is Your Text ? Ohio; 2007. p. 1-13.
6. DuBay WH. The Principles of Readability. [Internet]. *ilpact information*. 2004 [cited 2019 Sep 16]. p. 77. Available from: <http://www.impact-information.com/impactinfo/readability02.pdf>
7. Agency for Healthcare Research and Quality. The Patient Education Materials Assessment Tool (PEMAT) and User's Guide [Internet]. The U.S. Government's Official Web Portal. 2013 [cited 2019 Jul 22]. Available from: <https://www.ahrq.gov/ncepcr/tools/self-mgmt/pemat1.html>

Tabla 1. Estrategias de búsqueda

Términos de búsqueda	Páginas de resultados revisadas	Resultados preliminares	Resultados definitivos
"handbook patient incontinence pdf"	14	126	12
"guia paziente per incontinenza pdf"	19	183	4
"guide for patients incontinence pdf"	16	144	6
"guía para pacientes con incontinenza urinaria pdf"	16	144	2

Tabla 2. Análisis y evaluación de las guías para pacientes

Title of the guide*	SAM score (%)	Rendering	PEMAT- P score (%)	
The overactive bladder: What is it and what do you do about it?	82.5	Superior	Understandability	82
			Actionability	50
Urinary incontinence in women & men	55	Adecuado	Understandability	47
			Actionability	17
Incontinencia urinaria	76.7	Superior	Understandability	80
			Actionability	40
Bladder and bowel problems Common problems and how to manage them	81.6	Superior	Understandability	88
			Actionability	80
Bladder health and aging	42.1	Adecuado	Understandability	33
			Actionability	20
Bladder Matters. A Guide to Managing Overactive Bladder	88.6	Superior	Understandability	94
			Actionability	100
Communicating with your doctor about incontinence	72.5	Superior	Understandability	47
			Actionability	40
The importance of diagnosis	21.1	No adecuado	Understandability	13
			Actionability	40
Word federation of incontinent patients	18.8	No adecuado	Understandability	15
			Actionability	20
Urinary Incontinence	59.4	Adecuado	Understandability	50
			Actionability	20
Rehabilitacion de la incontinencia urinaria. che cosa É. Come si manifesta-cosa fare	35.3	No adecuado	Understandability	38
			Actionability	0
12. Urinary Incontinence**	34.4	No adecuado	Understandability	43
			Actionability	0
The overactive bladder and bladder retraining. Information for patients	79.4	Superior	Understandability	79
			Actionability	80
Healthy bladder guide. Information for patients	72.5	Superior	Understandability	69
			Actionability	60
Incontinenza	38.1	No adecuado	Understandability	56
			Actionability	0
Defining nocturia	39.5	No adecuado	Understandability	43
			Actionability	0
Quelle gocce a ciel sereno... un opuscolo informativo sull' incontinenza urinaria	70.5	Superior	Understandability	76
			Actionability	100
Incontinenza Urinaria da Sforzo	39.5	No adecuado	Understandability	44
			Actionability	40
Stress Urinary Incontinence	47.5	Adecuado	Understandability	50
			Actionability	40
Stress Urinary Incontinence. Back in control	59.5	Adecuado	Understandability	59
			Actionability	100
The Source. Your guide to better bladder control	79.5	Superior	Understandability	65
			Actionability	100
Treatment options for Stress Urinary Incontinence	55	Adecuado	Understandability	47
			Actionability	80
Urinary Incontinence. Embarrassing but treatable	81.3	Superior	Understandability	77
			Actionability	60
Promoting Continence with Physiotherapy	71.9	Superior	Understandability	92
			Actionability	60
Incontinence Patient Guide	63.6	Adecuado	Understandability	81
			Actionability	60
Tratamientos no quirúrgicos para controlar la fuga de orina	58.3	Adecuado	Understandability	75
			Actionability	40

*The writing (upper and lower case) of the titles of the guides has been respected. **The registration number of the document has been added to distinguish it from another with the same name.

8. Clayton LH. TEMPTed: Development and psychometric properties of a tool to evaluate material used in patient education. *J Adv Nurs*. 2009;65(10):2229-38.
9. Bakker E, Shelly B, Esch FH, Frawley H, McClurg D, Meyers P. International Continence Society supported pelvic physiotherapy education guideline. *Neurourol Urodyn*. 2018;37(2):869-76.
10. Ghoniem G, Stanford E, Kenton K, Achari C, Goldberg R, Mascarenhas T, et al. Evaluation and outcome measures in the treatment of female urinary stress incontinence: International Urogynecological Association (IUGA) guidelines for research and clinical practice. *Int Urogynecol J*. 2008;19(1):5-33.

IT16. THE EFFECTIVENESS PELVIC FLOOR MUSCLE TRAINING DURING AND BEFORE PREGNANCY (EVIDENCE SYNTHESIS)

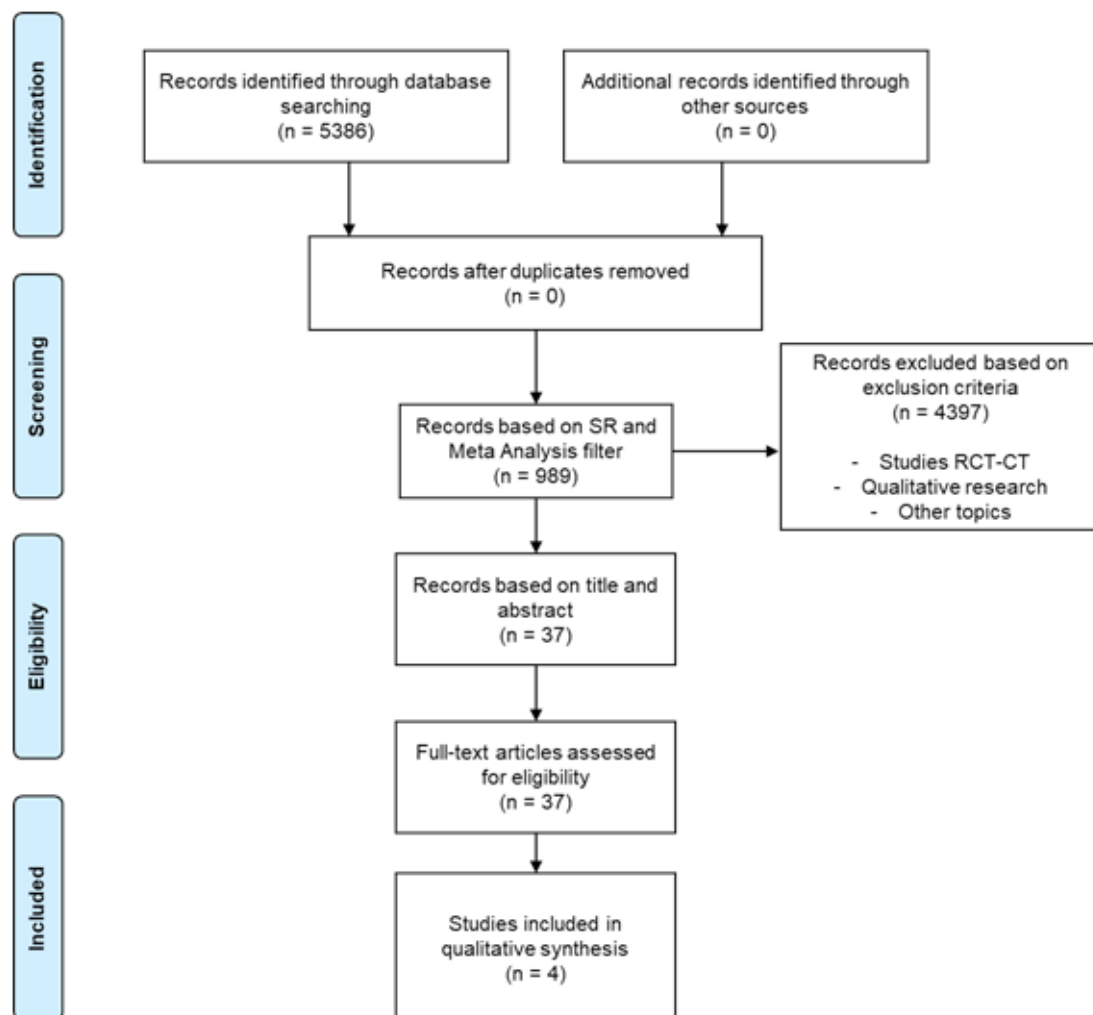
Alejandro Galán-Mercant, Gloria González-Medina, Carmen Ruiz Molinero, Carlos Luque Moreno, José Antonio Moral Muñoz, Petronila Oliva Ruiz, Inés Carmona Barrientos, Verónica Pérez Cabezas,

University of Cádiz.

Objectives: The primary aim was to determine the effectiveness of pelvic floor muscle training (PFMT) in the prevention or treatment of Urinary Incontinence in pregnant or postnatal women. The sec-

ondary aims were PFMT versus usual antenatal or postnatal care for the prevention of the urinary incontinence (UI) and PMFT versus usual antenatal or postnatal care for the treatment of the UI.

Methods: An umbrella review has been conducted, following the Joanna Briggs Institute reviewer's manual. The large number of systematic reviews and research syntheses available to report on the UI has been taken into account. This will compare and contrast published reviews and provide an overall review¹. The criteria for considering studies were: clinical trial, randomized control trial, systematic reviews and meta-analysis included in the last 10 years; The population to be analysed, pregnant and postnatal women over 18 years of age. The Interventions were the use of PFMT programs to improve the function of the pelvic floor muscles (PFM), consisting of repeated voluntary contractions of PFM, supervised by a health professional. Trials in which EMSP was combined with bio-feedback, electrical stimulation or any advice on synthetic emergency strategies were excluded. Gender, cultural and geographical factors have been considered. The PubMed database was searched in July 2019. The electronic search engine was ((“Pelvic Floor Disorders”[Mesh] OR “Pelvic Floor Disorders”[Title/Abstract]) OR (“Pelvic Floor”[Mesh] OR “Pelvic Floor”[Title/Abstract])) AND ((“Abdominal Muscles”[Mesh] OR “Abdominal Muscles”[Title/Abstract]) OR (“Abdominal Oblique Muscles”[Mesh] OR “Abdominal Oblique Muscles”[Title/Abstract]) OR (“Musculoskeletal System”[Mesh] OR “Musculoskeletal System”[Title/Abstract]) OR (“Rectus Abdominis”[Mesh] OR “Rectus Abdominis” [Title/Ab-



Flow chart of study selection for Systematic Reviews included in the umbrella review.

Table 1. Summary of study level evidence on the Effectiveness of Pelvic Floor Muscle Training Programs in Pregnancy for Urinary Incontinence

Intervention	Review ID	Title	Type of Review	Aim of review	Types of evidence and simple size reported	Year studies published	Funding/COI	AMSTAR score
PFMT	Boyle R et al. 2012 (3)	Pelvic floor muscle training for prevention and treatment of urinary incontinence in antenatal and postnatal women (Review)	Cochrane Systematic Review	To determine the effect of PFMT compared to usual antenatal and postnatal care on incontinence	22 trials were included. 4 were primary or secondary prevention trials. 6 were treatment trials. 12 were mixed prevention or treatment trials as some women did, and others did not, have incontinence symptoms at the start of training (n = 7,847)	The date of the last search was 7 February 2012	Declared internal sources of funding with apparent COI	High quality review
PFMT	Davenport et al. 2018 (4) Spanish or French and contained information on the Population (pregnant women without contraindication to exercise)	Prenatal exercise (including but not limited to pelvic floor muscle training) and urinary incontinence during pregnancy: a systematic review and meta-analysis	Systematic Review and Meta-analysis	To examine the relationships between prenatal physical activity and prenatal and postnatal urinary incontinence	24 studies (n=15982 women) from 12 countries and 4 continents were included in this systematic review. There were 18 RCTs, 2 non-randomised intervention and 4 cohort studies identified. Among the RCTs, 16 were exercise only, and 2 were exercise + cointervention	Up to January 6, 2017	Declared external sources of funding with no apparent COI	Moderate quality review
PFMT	Schreiner et al. 2018 (5)	Systematic review of pelvic floor interventions during pregnancy	Systematic Review	To determine the effects of pelvic floor interventions during pregnancy on childbirth-related and pelvic floor parameters	22 trials were selected for inclusion. Only a few randomized controlled trials were retrieved and most compared different outcomes. Three randomized trials including a total of 1136 women investigated the use of perineal dilator, pelvic floor muscle training, and perineal massage during pregnancy. 3 randomized trials studied the effect of PFMT on childbirth outcomes in 439 women.	Between January 1990, and December 2016	No funding/no apparent COI	Low quality review
PFMT VC BF	Mørkved and Bø 2014 (6)	Effect of pelvic floor muscle training during pregnancy and after childbirth on prevention and treatment of urinary incontinence: a systematic review	Systematic review	To address the effect of PFMT during pregnancy and after delivery in the prevention and treatment of urinary incontinence	The database searches resulted in 117 references after deduplication. In addition to the studies included in the Cochrane Systematic Review 2008, eight new RCTs and one quasi-experimental study were found. Eight were short-term original studies and one was a 7-year follow-up study. (n = 8,089)	Reports published up to June 12 2012	No funding/no apparent COI	Low Quality Review

BF: Biofeedback; PFMT: Pelvic Floor Muscle Training; RCT: Randomized Controlled Trial; VC: Vaginal Cones.

stract])) AND ((“Pelvic floor muscle training”[Title/Abstract]) OR (“Pelvic floor muscle activation”[Title/Abstract]) OR (“Pelvic floor muscle exercise”[Title/Abstract]) OR (“Pelvic floor muscle fatigue”[Title/Abstract])). The *Rayyan Online Platform* (<https://rayyan.qcri.org/>) was used by three independent reviewers to perform the study selection process. In case of discrepancies, the reviewers solved them by consensus. Figure 1 shows the process followed to obtain the final records included. The quality of the reviews and meta-analyses included in this umbrella review, was assessed using the *A MeaSurement Tool to Assess Systematic Reviews* (AMSTAR)².

Results: Four Systematic Reviews were included in this study³⁻⁶. The quality of the studies was high in one³, moderate in another⁴ and low in two^{5,6} (Table 1). The outcomes were divided, mainly into prevention and treatment (Table 2). Findings on prevention and treatment, with respect to primary outcomes, are variable depending on the period. In treatment, PFMT is shown to be effective antenatal and postnatal. It reduces the symptoms and the probability of suffering from IU. However, there is a lot of variability in the recommendations in the number of contractions, intensity and time of treatment of PFMT. Even so, it is indicated that it should be assimilated, as far as possible, to the usual muscle training. Whether the treatment is followed by a physiotherapist or another health professional does not influence the results. All participating women receive information once the clinical trial is completed. Some receive it in their usual treatment. Therefore, those in the control groups may have done pelvic floor activity. This will influence the long-term results. It will also influence whether women stop exercising.

Conclusions: In terms of prevention, the PMFT programmes during pregnancy appears to decrease the prevalence of UI up to six months after delivery. After the six-month postpartum, the information it is unclear whether this effect is positive. For woman with UI after delivery, the PMFT programmes is an effective treatment with a reduce of the prevalence of UI (the effects do no persist in long term). There is no sufficient evidence to say whether or not PMFT programmes are effective in the long term. Adverse effects from the PFMT programmes during pregnancy has not been reported.

Keywords: Pelvic Floor. Pelvic Floor Disorders. Pelvic floor muscle training. Urinary incontinence. Pregnancy. Postnatal period.

REFERENCES

1. Aromataris E, Fernandez R, Godfrey CM, Holly C, Khalil H, Tungpukom P. Summarizing systematic reviews: Methodological development, conduct and reporting of an umbrella review approach. *Int J Evid Based Healthc*. 2015;13(3):132-40.
2. Shea BJ, Reeves BC, Wells G, Thuku M, Hamel C, Moran J, et al. AMSTAR 2: A critical appraisal tool for systematic reviews that include randomised or non-randomised studies of healthcare interventions, or both. *BMJ*. 2017;358.
3. Boyle R, Hay-Smith EJC, Cody JD, Mørkved S. Pelvic floor muscle training for prevention and treatment of urinary and faecal incontinence in antenatal and postnatal women. *Cochrane Database Syst Rev* [Internet]. 2012 Oct 17; Available from: <http://doi.wiley.com/10.1002/14651858.CD007471.pub2>
4. Davenport MH, Nagpal TS, Mottola MF, Skow RJ, Riske L, Poitras VJ, et al. Prenatal exercise (including but not limited to pelvic floor muscle training) and urinary incontinence during and following pregnancy: A systematic review and meta-analysis. *British Journal of Sports Medicine*. 2018;52:1397-404.
5. Schreiner L, Crivelatti I, de Oliveira JM, Nygaard CC, dos Santos TG. Systematic review of pelvic floor interventions during pregnancy. *International Journal of Gynecology and Obstetrics*. 2018;143:10-8.
6. Mørkved S, Bo K. Effect of pelvic floor muscle training during pregnancy and after childbirth on prevention and treatment of urinary incontinence: a systematic review. *Br J Sports Med*. 2014;48(4):299-310.

Oral communications

O1. EVALUATION OF THE IMPROVEMENT OF QUALITY OF LIFE IN PATIENTS WITH URINARY INCONTINENCE USING THE KING'S HEALTH QUESTIONNAIRE INSTRUMENT

Begoña Valle Martín¹, Aroa María Eugenio Chaves¹, Alberto Dominguez Moreno¹, Susana Cossi González², Marta Vega³

¹Fisioterapeuta; ²Facultativo especialista en Rehabilitación; ³Facultativo especialista en Ginecología, Hospital Juan Ramón Jiménez, Huelva.

Objectives: To assess health-related quality of life (HRQoL) in women with urinary incontinence (UI) using the King's Health Questionnaire (KHQ) instrument.

Methods: Setting: 620-bed public hospital. Study period: 2019-2020. Preliminary prospective non-randomized study of 51 patients with stress UI (SUI), urgency (UUI) and mixed (UI) who met inclusion criteria and accepted their participation. Measuring instrument: KHQ. The intervention is carried out based on existing scientific evidence. CV of the patients is evaluated with the KHQ in temporary measurements: baseline and at the end of treatment. The analysis of the results was carried out using SPSS.

Results: 51 women meet inclusion criteria. Age 46 (26-75) years. 32 with IUE, 18 with IUM and 1 with IUU. Cross-tables measured the interaction of each of the nine dimensions of the KHQ at the beginning of the treatment versus the end of the intervention. With Pearson's chi-square statistic, we obtained a statistically significant association of improvement in perception of general health ($p < 0.001$) and eight QoL domains: incontinence impact ($p < 0.001$), role limitation ($p < 0.001$), physical limitation ($p < 0.001$), social limitation ($p < 0.001$), personal relationships ($p < 0.001$), emotions ($p < 0.001$), sleep/energy disturbances ($p < 0.001$), condition severity (frequency $p = 0.025$, nocturia $p < 0.001$, urgency $p = 0.03$). There is a significant correlation according to Kruskal Wallis tests when comparing RV leak involvement (ICIQ-SF) at the beginning ($p0 < 0.00$, $p1 < 0.001$), at the end of treatment ($p0 < 0.001$, $p1 < 0.001$) and at month of intervention ($p0 = 0.014$, $p1 = 0.006$) versus impact on life due to urinary problems (KHQ) both at baseline (0) and at the end of intervention (1).

Conclusions: Significant improvement in HRQL of women in dimensions: physical, psychological, sexual, work and social disturbed by UI at the end of the intervention.

Keywords: Urinary incontinence. Quality of life questionnaires. Female.

Contact: b.egonaustralia@gmail.com

O2. PHYCHOSOCIAL CONSEQUENCES OF ABDOMINAL DIASTASIS: BEYOND AESTHETICS

Victoria Vicente-Campos¹, Laura Fuentes Aparicio², Montserrat Rejano-Campo³

¹Haro & Campos Physiotherapy Clinic. ²Faculty of Physiotherapy: Universidad de Valencia. ³University of Montréal.

Introduction: Diastasis recti (DR) is the abnormal widening of the distance between the two medial borders of rectus abdominis muscles. Though this condition can appear in both sexes, its prevalence is higher in women during pregnancy (33.1%) and postpartum (45.4% 6 months after delivery). Women with DR are more likely to suffer from reduced quality of life, lower body image satisfaction and higher degrees of abdominal pain. However, research on the impact of DR at a psychosocial level is scarce. The aim of this study was the analysis of the prevalence of DR symptoms and its effect at a psychological and social level in women.