IUGA
international urogynecological association

IUGA
EXCHANGE MEETING

01-02 November 2019
Maltepe University, İSTANBUL / TÜRKİYE

CONGRESS BOOK

Organization Secretariat

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About the Meeting

Turkish Urogynecology &Pelvic Reconstructive Surgery Association (TUPRA) and International Urogynecological Association (IUGA) Exchange Meeting will take place November 01-02, 2019 in Istanbul. Exchange meeting will focused on urinary incontinence and pelvic organ prolapse and included a live surgery demonstration. The meeting will be held at Marma Hotel and live surgery will be transmitted from Maltepe Universtiy Hospital.

About TUPRA

Turkish Urogynecology &Pelvic Reconstructive Surgery Association (TUPRA) is the premier non-profit organization representing professionals dedicated to treating female pelvic floor disorders. Founded in 1997 TUPRA is the primary source of clinical and scientific information and education in Urogynecology. TUPRA is affiliate society of IUGA.

About IUGA

The International Urogynecological Association (IUGA) is dedicated to the global advancement of urogynecological knowledge and patient care through education and the promotion of basic and clinical research on disorders of the female pelvic floor.

In addition to holding an annual conference and publishing the International Urogynecology Journal, IUGA activities include conducting education programs around the world, developing consensus terminology in the field, connecting related professionals, and producing patient education materials.

Chair

Ranee Thakar & İsmail Mete İtil

International Faculty

Bruno Deval

Emanuel Delorme

Mija Blaganje

Local Faculty

Onay Yalcin

Fulya Dokmeci

Omer Tarık Yalcin

Orhan Unal

Ozgur Yeniel

Berna Haliloglu Peker

Petek Balkanli

Funda Gungor Ugurlucan

Nezihe Kizilkaya Beji

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DAY 1 FRIDAY

08:00-08:30	**Registration**		
08:30-09:00	**Welcome and introduction** *Pallavi Latthe, Ateş Karateke, İsmail Mete İtil*		
09:00-13:00	**LIVE SURGERY** *Chairman* *Pallavi Latthe* *Fulya Dökmeci*	**Nurse/ Physiotherapist WS** *Nezihe Kizilkaya Beji*	**Physiotherapist WS** *Emel Sönmezer*
12:00-12:30	**Aşırı Aktif Mesane Tedavisinde Betmiga** *Oturum Başkanı: Dr. Ali Fuat Demirci* *Konuşmacı: Dr. Funda Güngör Uğurlucan*		

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12:30-13:00 LUNCH BREAK

13:00-15:30	**Session 1**
	Chairman: Pallavi Latthe, Önay Yalçın, Fuat Demirci
13:00-13:20	*Funda Uğulucan* - **Pre-lecture MCQ**
13:20-13:40	*Fulya Dökmeci* - **Anatomy and Physiology of Female Urethra and Incontinence**
13:40-14:00	*Pallavi Latthe* - **Do we have to perform an urodynamic assessment before a surgical procedure for urinary stress incontinence?**
14:40-15:00	*Bruno DEVAL* - **Is there enough evidence to justify the use of Laser and other thermal therapies in Female LUTD?**
15:00-15:20	*İsmail Mete İtil* - **Female STRESS and MIXED urinary incontinence: First line SURGICAL treatment, Recommended and prohibited steps, Choice of the tape**
15:20-15:30	**Discussion**

15:30-16:00 COFFEE BREAK

16:00-17:30	**Session 2**
	Chairman: Fulya Dökmeci, Ömer Tarık Yalçın, Niyazi Aşkar
16:00-16:20	*Pallavi Latthe* - **Clinical Management of Recurrent Urinary Stress Incontinence After Surgery**
16:20-16:40	*Funda Güngör Uğurlucan* **- Recurrence of Female STRESS and MIXED urinary incontinence: Tapes, Bulking Agents and Cell Therapy. Female second line surgical treatment**
16:40-17:00	*Mija BLAGANJE* - **Management of FEMALE OVERACTIVE BLADDER**
17:00-17:20	**Discussion**
17:20-17:40	*Funda Ugurlucan* **- Post-lecture MCQs**
17:40-19:00	*Round Table: Chair: Pallavi Latthe, İsmail Mete İtil, Fulya Dökmeci, E.Delorme,* **Urogynecologic Surgical Mesh Implants: Where are we now?**

DAY 2 SATURDAY

08:30-12:30	**LIVE SURGERY** *Chairman Önay Yalçın Orhan Ünal*	**Nurse/ Physiotherapist WS** *Nezihe Kizilkaya Beji*	**Physiotherapist WS** *Emel Sönmezer, İlke Keser* **Oral Presentations**

12:00-13:00	**LUNCH BREAK**
13:00-15:30	**Session 3**
	Chairman: İsmail Mete İtil, Melike Doğanay, Volkan Kurtaran
13:00-13:20	*Petek Balkanlı* **- Pre-lecture MCQ**
13:20-13:40	*Ömer Tarık Yalçın* **- Pelvic Floor Surgical Anatomy for pelvic organ prolapse**
13:40-14:00	*E Delorme* **- Female genital prolapse and vaginal mesh interposition**
14:40-15:00	*B Deval* **- Laparoscopic Sacro - colpo-hysteropexy : Trends and evidence**
15:00-15:20	*Özgür Yeniel* **- Use of native tissues in the treatment of female genital prolapse.**
15:20-15:30	**Discussion**
15:30-16:00	**COFFEE BREAK**
16:00-17:30	**Session 4**
	Chairman: Orhan Ünal, Petek Balkanlı, Fuat Demirci
16:00-16:20	*Cenk Yaşa* **- Place of Hysterectomy during Prolapse surgery**
16:20-16:40	*Melike Doğanay* **- Risks factors of recurrence for prolapse surgery**
16:40-17:00	*Berna Haliloğlu Peker* **- Management of Complications in Prolapse Surgery**
17:00-17:30	*Petek Balkanlı* **- Post-lecture MCQs**
17:30-18:30	**VIDEO SESSION** *Chair: Bruno Deval, İsmail Mete İtil, Özgür Yeniel, Esra ÇetinkayaVideo Presentations*
18:30-18:45	*Ozgur Yeniel* **- Rational Drug Use**

ORAL ABSTRACTS

O-01 URINARY DIARY AND BLADDER TRAINING

Oral Presentation /

Dilek bilgic [1],

[1]Nursing Facuty of Dokuz Eylul University, Izmir, Turkey,

Urinary diary is the standard first step of the behavioral program. Urinary diaries are important primary tools that reveal both the initial symptoms of the patients and the effectiveness of the treatment. Guidelines in this area for the evaluation of urinary incontinence and other storage and voiding function disorders recommend the use of the urinary diary. Keeping of urinary diaries during daily life and in house setting is important. The patient's compliance with this process is essential in urinary daily success. When frequency becomes habitual, it may cause; decrease in functional bladder capacity, detrusor hyperactivity and in some cases urge urinary incontinence. Bladder training, one of the behavioral treatments, has been shown to be effective for detrusor hyperactivity in the literature. This behavioral treatment is recommended as the first initial treatment for detrusor hyperactivity in adults because it is a non-invasive procedure. During bladder training which is a formal health education program that takes 6-12 weeks (8 weeks on average), Patients are taught to urinate at certain times. In compliance to bladder training program, It's recommended that patients; resist sudden urge to urinate, not go to the toilet even if there is a feeling of urination before the time expires, and postpone the micturition, also go to the toilet when there is no urine feeling when the time of micturition is reached. In urinary daily and bladder training, the urogynecology nurse plays an important role in the patient's adaptation to process. Key words: Urinary diary, bladder training, urogynecology, nursing.

KEYWORDS: Urinary diary, bladder training, urogynecology, nursing.

O-02 Nursing Roles in Urogynecology in Turkey and the World

Oral Presentation /

ELİF VELİOĞLU[1],

[1]ÇEKİRGE STATE HOSPITAL, BURSA,TURKEY,

Urogynecology is the field of diagnosis and treatment of problems such as the overactive bladder, pelvic organ prolapse, urinary incontinence complaints and genital disfiguration and loss of function in the obstetrics and gynecology and urology branches. Urogynecology nurses are the primary reference and coordinating and communicating individuals in the multidisciplinary team. In this important position, nurses have the basic responsibilities that they fulfill to improve the quality of patient care. Roles and responsibilities; research, clinician/practitioner, consultancy, health protection /development, education, decision making, treatment management, manager, coordination and communication. Areas of Urogynecology Nursing; Continence nursing, Urology nursing, Colorectal nursing, Stoma nursing, Geriatric continence nursing are specialized nursing areas within the scope of urogynecology nursing. Advanced nursing roles have been determined in the world, especially in the field of continence nursing. These; Registered Nurse (RN): Determination of urinary incontinence, Basic diagnostic procedures (anamnesis, physical examination, and basic urological description), Patient, patient caregiver and caregiver training, Bladder training, behavioral treatment application, incontinence tools, and products, Non-professional employees control and the implementation of health protection strategies. Advanced Practice Nurse (APN), Nurse Practitioner (NP), Clinical Nurse Specialist (CNS): In addition to registered nurse responsibilities; Urodynamic practice and interpretation of data, laboratory tests, determination of patients who need consultation, bladder training, behavioral treatment, pelvic muscle rehabilitation, biofeedback, neuromuscular pelvic muscle stimulation, prescribing pharmacological drugs. In summary, urogynecology nursing is an important advanced nursing field that needs to be developed through certificate and training programs.

KEYWORDS: urogynecology, urinary Incontinence, nursing, turkey, world,

O-03 INNOVATIVE APPROACHES TO URINARY INCONTINENCE: LITERATURE REVIEW

Oral Presentation /

Dilek bilgic [1], Manolya parlas[2],

[1]*Dokuz Eylul University, Faculty Of Nursin, [2]Dokuz Eylul University, Institute of Health Sciences.,

Introduction and Aim: Today, in line with the advances in technology, innovative methods have been developed to relieve the symptoms of Urinary incontinence (UI) and improve the quality of life of individuals. Aim is to investigate innovative approaches for reducing the symptoms of UI and improving quality of life in line with the literature. Material and Method: In study, PubMed/Medline, CINAHL, EMBASE, Cochrane Library and Google Scholar database were searched using the "urinary incontinence, innovative", "mobile application", "virtual reality", "wearable technology" and "complementary alternative medicine". According to search results, 16 research papers in the last decade, excluding surgical and drug applications, were evaluated. Results: Wearable technology, virtual reality, gerontechnology, mobile applications and complementary and alternative medicine were found to be the studies carried out within the scope of innovative approaches to UI. The studies were mostly conducted in 2019, designed as randomized controlled and pilot studies. The studies were found to aim to improve the quality of life and improve the urinary symptoms of patients through methods such as research on device development and improvement of their effectiveness, facilitating compliance with pelvic floor exercises with mobile applications and video games, preventing UI-related wound development and reducing stress in urodynamic examinations. Conclusion: Innovative approaches were found to be effective in relieving symptoms and improving quality of life in individuals with UI. According to the study results, it is believed that innovative practices can also be used in clinical applications. Keywords: Urinary incontinence, innovative practices, innovation, quality of life, nursing.

KEYWORDS: Urinary incontinence, innovative practices, innovation, quality of life, nursing.

O-04 Determination Of Toilet Procrastination Behaviors And Incontinence Problems Of Nurses

Oral Presentation /

Demet Avcı Alpar[1], Hacer Karanisoğlu[1],

[1]Maltepe University,

This study aims to determine the frequency and risk factors of incontinence problems and toilet procrastination behaviors of nurses. The study is a pilot prevalence and risk identification study to represent nurses in Turkey. We accepted 161000 registered nurse was determined as a universe, by TUIK2017 data in Turkey. The power analysis was calculated through the Rao Soft Site with a 5% error margin in the 90% confidence interval, and the number to be sampled was 271 nurses. The questionnaire prepared by the researchers was shared by social media. The mean age of the participants was 33.1 ± 0.47: BMI was 23.7 ± 0.24, 64.6% were married and 97.8 were women, 32.5% had completed masters and higher education. Of the 265 women, 15.8% had a vaginal birth, the average number of children was 1.10±0.12, only 16% of their pregnancies had gained weight under 13 kg, and 4.4% had more than 4000gr of heaviest babies it was learned. When toilet habits were evaluated, 98.9% of the nurses showed procrastination behavior, 91.1% of them stated as meticulousness and 98.9% as workload. 42.8% of the participants were nurses with urinary incontinence; 42.8% of them had urge symptoms, and 40.2% of them had problems with urinary bladder failure. 77.5% of the study group reported gas incontinence and 62.7% reported that they rarely experienced faecal leakage. Comparative analysis showed that low economic status, high BMI and high birth weight increased the problems.

KEYWORDS: Nurse Bladder, Incontinence, Delay Behavior, Workload, Toilet Procrastination

O-05 URINARY DIARY AND BLADDER TRAINING

Oral Presentation /

Dilek Bilgiç [1],

[1]Dokuz Eylul University Nursing Faculty,

Urinary diary is the standard first step of the behavioral program. Urinary diaries are important primary tools that reveal both the initial symptoms of the patients and the effectiveness of the treatment. Guidelines in this area for the evaluation of urinary incontinence and other storage and voiding function disorders recommend the use of the urinary diary. Keeping of urinary diaries during daily life and in house setting is important. The patient's compliance with this process is essential in urinary daily success. When frequency becomes habitual, it may cause; decrease in functional bladder capacity, detrusor hyperactivity and in some cases urge urinary incontinence. Bladder training, one of the behavioral treatments, has been shown to be effective for detrusor hyperactivity in the literature. This behavioral treatment is recommended as the first initial treatment for detrusor hyperactivity in adults because it is a non-invasive procedure. During bladder training which is a formal health education program that takes 6-12 weeks (8 weeks on average), Patients are taught to urinate at certain times. In compliance to bladder training program, It's recommended that patients; resist sudden urge to urinate, not go to the toilet even if there is a feeling of urination before the time expires, and postpone the micturition, also go to the toilet when there is no urine feeling when the time of micturition is reached. In urinary daily and bladder training, the urogynecology nurse plays an important role in the patient's adaptation to process.

KEYWORDS: Urinary diary, bladder training, urogynecology, nursing.

O-07 Test-retest and Inter-rater Reliability of Five Times Sit to Stand Test in Pregnancy-Related Pelvic Girdle Pain

Oral Presentation /

Semiha YENİŞEHİR[1], İlkim ÇITAK KARAKAYA[1], Ahmet Akın SİVASLIOĞLU[2], Dilara ÖZEN ORUK[1], Mehmet Gürhan KARAKAYA[1],

[1]Muğla Sıtkı Koçman University, Faculty of Health Sciences, Department of Physiotherapy and Rehabilitation, [2]Muğla Sıtkı Koçman University, Faculty of Medicine, Department of Obstetrics and Gynecology,

Background: Pelvic girdle pain (PGP) is a common musculoskeletal disorder during pregnancy, and functional mobility evaluation is very important for planning appropriate intervention programs. Objectives: To investigate test-retest and interrater reliability of Five Times Sit-to-Stand (5TSS) test in pregnant women with and without PGP. Methods: One hundred sixty-seven women in second/third trimester of pregnancy participated in two assessments, one week apart. The performance time was measured using a chronometer application of a mobile phone by two independent assessors, in order to investigate inter-rater reliability. Following tests of functional mobility, seven clinical tests were used to classify the subjects as with or without PGP. Results: The 24.55% of subjects had PGP. Inter-rater reliability of 5TSS was excellent for subjects with and without PGP (ICC=0.999, 95% CI=1.0 to 1.0; ICC=0.999, 95% CI=1.0 to 1.0, respectively). Test-retest reliability of 5TSS was also very high for subjects with and without PGP (ICC=0.986, 95% CI=1.0 to 1.0; ICC=0.828, 95% CI=0.6 to 0.9, respectively). Conclusions: The 5TSS test is a reliable functional mobility outcome measure in pregnant women with and without PGP. Further psychometric properties of the measure such as responsiveness, should be investigated in the future.

KEYWORDS: Functional mobility, obstetric physiotherapy, outcome measure, prenatal evaluation, sacroiliac pain

O-08 TURKISH VERSION OF PROLAPSE AND INCONTINENCE KNOWLEDGE QUESTIONNAIRE: PSYCHOMETRIC ASSESSMENT

Oral Presentation /

Arife KORKUT[1], İlkim ÇITAK KARAKAYA[2], Semiha YENİŞEHİR[2], Mehmet Gürhan KARAKAYA[2],

[1] Çağdaş Vefa Private Education And Rehabilitation Center, [2]Muğla Sıtkı Koçman University/Faculty of Health Sciences/Department of Physiotherapy and Rehabilitation,

Purpose: The aim of this study is to translate Prolapse and Incontinence Knowledge Questionnaire (PIKQ) into Turkish (TrPIKQ), and to investigate its reliability and validity. Method: Two hundred and six volunteer participants with a mean age of 31.79±8.79 years were included. Comprehensibility of TrPIKQ, which was prepared according to a standard translation procedure, was tested in a pilot study (n=20). The participants were questioned about their physical and socio-demographic characteristics; obstetrical-gynecological histories and menstrual states; current medical complaints and reasons of applying to the clinics. In addition to TrPIKQ, the participants were asked to complete Turkish versions of the Incontinence Quiz (IQ), Global Pelvic Floor Bother Questionnaire (GPFBQ), Pelvic Floor Distress Inventory-20 (PFDI-20) and Pelvic Floor Impact Questionnaire (PFIQ-7). Retests were performed on 27 participants, after one week. Internal consistency, test-retest reliability and construct validity of the TrPIKQ were investigated. Results: Internal consistency of the subscales of TrPIKQ (TrPIKQ-UI and TrPIKQ-POP) were high (Cronbach α=0.754 for both); item-total correlations were 0.127-0.576 and 0.217-0.509, respectively. Also, test-retest reliability of TrPIKQ-UI, TrPIKQ-POP and overall TrPIKQ were high (ICC=0.949, 0.911 and 0.878, respectively). TrPIKQ scores were highly correlated with IQ scores, and weakly correlated with PFDI-20 and PFIQ-7 scores ($p<0.05$). Discussion: It was concluded that TrPIKQ is a reliable and valid tool to measure Turkish women's knowledge and awareness about urinary incontinence and pelvic organ prolapse.

KEYWORDS: Pelvic floor dysfunction, women's health, knowledge, awareness

O-09 LOWER URINARY TRACT SYMPTOMS AND QUALITY OF LIFE IN OBESE WOMEN

Oral Presentation /

Arzu MALAK[1], Ergül ASLAN[2],

[1]Tekirdag Namik Kemal University School Of Health, [2]Istanbul University-Cerrahpaşa Florence Nightingale Nursing Faculty,

The study was implemented to specify lower urinary tract symptoms of obese women and the impact on their quality of life.The research is descriptive,cross-sectional and case-control in manner.It was carried out at a University Hospital during April 2015–April 2016.The study sampling comprised 216 females with average weight and 237 obese females.The introductory info sheet, Bristol Female Lower Urinary Tract Symptoms Scale (BFLUTS), SF-36 Quality of Life Scale,Center for Epidemiologic Studies Depression Scale (CESD-S) were utilized. In our study, the rate of women who wake up to urinate at night was 74.8%, 41.1% of women who feel pain in the bladder, 30.7% of women sitting in the toilet waiting to urinate,40.8% of women have incontinence while coughing, sneezing or physically moving. While there was no difference between the groups in terms of symptoms of overactive bladder syndrome, 24.5% of women with normal weight and 43% of obese women had problems with urinary incontinence.Regarding BMI results, there was no significant difference found between groups for age and obstetric-gynecological features of those females ($p>0.05$).There was statistically significant difference between samples for several lower urinary tract symptoms including storing, urinary incontinence and quality of life.Urinary incontinence was found 24,5% in average weight group and 43% in obese group.There was also significant difference found for physical function, physical role deficiency, pain, general health perception and energy sub-dimensions of quality of life ($p<0.05$).In conclusion, obesity was found to bring about lower urinary tract symptoms for females and created negative effects on their life quality.

KEYWORDS: Lower urinary tract symptoms, female, obesity, quality of life

O-10 Evidence-based approach and complementary and alternative therapies in urinary incontinence

Oral Presentation /

Tugba Andac[1], Özlem Can Gürkan2, Nurdan Demirci3

[1]Maltepe University, School Of Nursing, Istanbul ,Turkey,

[2]Marmara Üniversitesi, Sağlık Bilimleri Fakültesi, Hemşirelik Bl. Doğum ve Kadın Hastalıkları Hemşireliği AD.İstanbul- Türkiye

[3]Marmara Üniversitesi, Sağlık Bilimleri Fakültesi, Hemşirelik Bl. Doğum ve Kadın Hastalıkları Hemşireliği AD. İstanbul- Türkiye

Urinary Incontinence (UI); is an important and common health problem that causes medical, psychosocial and hygienic problems and may adversely affect the quality of life of individuals. About 200 million people in the world are experiencing UI complaints. Health professionals are constantly seeking better interventions in the treatment of UI symptoms, which have a significant impact on quality of life. Complementary and alternative medicine (CAM), such as behavior change, lifestyle changes, bladder training, pelvic floor muscle exercises, vaginal cones, biofeedback, yoga, acupressure, acupuncture may prevent or reduce bladder dysfunction. Our review was prepared to analyze the evidence-based CAM interventions used in UI. During the preparation process of the review, relevant articles published in Cochrane and PubMed were scanned and their level of evidence was examined according to the evidence level classification accepted by the Joanna Briggs Institute. As a result of the data obtained, there is no reliable, sufficient evidence on whether CAM methods are useful, and should be a research priority.

ANAHTAR KELİMELER: Urinary incontinence, evidence-based practices, complementary and alternative therapies

O-12 Mental Health and Quality of Life in Women with Incontinence

Oral Presentation /

Merve MURAT[1],

[1]Nursing Department, Biruni University, Istanbul,

Incontinence is a serious health problem that affects the quality of life and mental health of the individual. International Continence Society (ICS); urinary incontinence is defined as the complaint of involuntary loss of urine and is defined fecal incontinence as the complaint of involuntary loss of solid or liquid feces. Incontinence is 3-4 times more common in women than men and increases with age in both sexes. The women are adversely affected in psychological, physical, social, and emotional aspects during diagnosis, treatment and rehabilitation process. The women diagnosed with incontinence do not want to engage in physical activity, travel, social, and emotional relationships and restricts their daily lives. Women who restrict daily life activities lose their self-confidence over time. It causes reducing the quality of life with feelings of shame, discomfort depression, and anxiety. There is some kind of treatment for incontinence such as surgical and pharmacological treatments, as well as lifestyle changes, behavioral, physical, and complementary interventions. However, it can be affected by such as age, gestational status, number of births that women gave, etc. These affect the treatment and rehabilitation process and the mental health of the individual. This review aims to examine the effects of incontinence on women's mental health and quality of life in the light of current studies and to provide recommendations that women's health and psychiatric nurses can apply during the process.

KEYWORDS: Mental Health, Quality of Life, Women, Urinary Incontinence, Fecal Incontinence

O-13 Sexual Counseling for Couples in the Process of Urinary and Fecal Incontinence Treatment

Oral Presentation /

Çiğdem BİLGE[1],

[1]Mugla Sitki Kocman University,

Urinary incontinence is the involuntary leakage of urinary incontinence when the intra-bladder pressure exceeds the maximal urethral closure pressure. Fecal incontinence is the patient's unintentional gas and stool leakage. These pathological conditions are important diseases that are seen with age, high cost to society, increase the workload of health professionals and cause psychological problems in the patient. Women who have incontinence have low body image, feeling ashamed, fear of smell, fear of urine, feces or gas leakage during coitus, negative reactions of the partner and thinking that the attractiveness decreases cause sexual dysfunction and sexual dysfunction. Common sexual problems in incontinence include deterioration of body image, sexual reluctance, decreased lubrication, decreased sexual satisfaction, dyspareunia, and lack of orgasm. Sexual counseling is to help clients or couples with the aim of correcting the lack of information about sexuality, correcting false information and beliefs, and informing about sexual myths. The purpose of sexual counseling in general, to reduce the fear and anxiety of women in terms of sex, to increase the emotional and sexual response of the woman, to reduce the anger against the woman's spouse, to try new emotional and sexual techniques, to increase communication between spouses, to ensure the exclusion of distracting thoughts during sexual intercourse and the woman's orgasm to reduce their prejudices about being.

KEYWORDS: fecal incontinence, sexual counseling, urinary incontinence

O-14 THE EFFECTS OF KEGEL EXERCISES ON STRESS URINARY INCONTINENCE AND QUALITY OF LIFE; A PILOT STUDY

Oral Presentation /

Gizem Demirdöven[1], Aysun Fendal Tunca[2], Ayşe Deniz Ertürk Coşkun[3], Ayça Aklar Çörekçi[1],

[1]Physiotherapy And Rehabilitation Department, Yeditepe University, İstanbul, Turkey, [2]Department Of Obstetrics And Gynecology, Sadi Konuk Training And Research Hospital, İstanbul, Turkey, [3]Department Of Obstetrics And Gynecology, Istanbul Haydarpaşa Training And Research Hospital, Istanbul, Turkey,

Objectives: Stress urinary incontinence (SUI) is defined as the "complaint of involuntary leakage of urine on effort or exertion, or on sneezing or coughing". Kegel exercises are considered as a first line conservative treatment of SUI to improve the pelvic floor muscle strength. In this study, we aimed to investigate the effects of Kegel exercises applied for pelvic floor muscle training on quality of life and severity of urinary incontinence, in women with stress urinary incontinence. Materials and Method: Fourteen women (mean age=46.2 ±14) with stress urinary incontinence were included. Data were obtained by applying King's Health Questionnaire (KHQ), Urogenital Distress Inventory short form (UDI-6). Questionnaires were performed at the beginning and end of the treatment. After explaining how to contract the pelvic floor muscles, a 6-week home exercise program consisting of kegel exercises were given. Statistical analysis was made with SPSS version 25.0 and Willcoxon signed rank test was used ($p<0.05$). Results: There was a statistically significant difference between the mean scores of KHQ after Kegel exercises home programme. Pelvic floor muscle training was shown to improve perceived quality of life ($p<0.01$), incontinence impact ($p<0.05$), role limitations ($p<0.05$), physical limitations ($p<0.01$), social limitations ($p<0.01$), personal relationships ($p<0.01$), emotional problems ($p<0.05$), sleep and energy ($p<0.05$), symptom severity ($p<0.05$). Among all UDI-6 subscales, a statistically significant difference was found between the results of pre-treatment and post-treatment ($p<0.05$). Conclusion: The results of this study revealed that Kegel exercises may be used to improve the quality of life and the symptoms of SUI.

KEYWORDS: Stress Urinary Incontinence, Kegel exercise, Quality of Life, Urinary Incontinence Symptoms

O-15 Investigation the Effectiveness of Exercise and Ergonomic Modifications Training Programme on Depression, Disability and Quality of Life in Postpartum Women Delivered by Ceserean Section

Sönmezer E., Bayram T.

This study was planned to investigate the effectiveness of exercise and ergonomic modifications training programme on depression, disability and quality of life in postpartum women delivered by ceserean section. Thirty primiparous women delivered by cesarean section in the early postpartum period were divided into two groups as exercise and education group and control group. Six weeks training program, which includes strengthening exercises, postural exercises, breathing exercises, pelvic floor exercises and ergonomic modifications was explained in practise to women in exercise and ergonomic training group and the training booklet which was explained in detail to describe exercise and ergonomic modifications training were given. Routine postpartum nursing and medical care services were given first day after delivery to the control group. At the end of the sixth week, all participants were evaluated by Oswestry Disability Index, Postpartum Comfort Questionnaire, Edinburgh Postpartum Depression Scale, Postpartum Self-Evaluation Questionnaire and Postpartum Quality of Life Scale. Comparing between two groups, it was found that the levels of disability related to low back pain ($p<0,001$) and postpartum depression levels ($p<0,001$) were lower and the quality of life was higher in the training group than control group ($p<0,001$). The results of Postpartum Comfort Questionnaire ($p<0,001$) were higher in exercise and ergonomic education group than control group. The results of subscales of Postpartum Self-Evaluation Scale, the quality of the relationship between the spouses, the attitudes of the partners to attend the baby care, satisfaction with the birth experience, satisfaction with the survival and trust in coping with maternity tasks (all p's $<0,001$) were found statistically significant differences between the groups. There was no difference between the groups in terms of maternity and satisfaction with the newborn ($p=0,838$) and the support of family and friends for motherhood ($p<0,744$) which were the subscales of the Postpartum Self-Evaluation Scale. In conclusion exercise and ergonomic modification training programme can be recommended as effective and safe method for improving disability related to low back pain, postpartum depression, the quality of life , postpartum comfort levels and maternity compliance.

O-16 Is there a relationship between pelvic floor muscle strength and pulmonary function in middle age women without pelvic organ prolapse?

Manolya ACAR ÖZKÖSLÜ, Assist Prof, PT; , Emel SÖNMEZER[1] Assoc Prof, PT; Bulut VARLI[2] DR, Fulya DÖKMECİ[2] Prof. Dr, Ş. Esra Çetinkaya[2] Assoc Prof. Dr, M. Murat Seval[2] Assoc Prof. Dr.

[1]Faculty of Health Sciences, Department of Physiotherapy and Rehabilitation, Baskent University, Ankara, Turkey.

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ABSTRACT

Purpose: In the literature; it is proposed that there is a connection between respiratory muscles and pelvic floor muscles function. However there are limited researches investigating the association between respiratory muscles and pelvic floor muscles. The aim of our study is to examine the correlation between pelvic floor muscle strength and pulmonary function in middle age women without pelvic organ prolapse. **Methods:** The study was carried out with 23 nonsmoker women (mean age: 44.09 ± 11.73 years, BMI: 28.36±5,45 kg/m^2) without pelvic organ prolapse. The pelvic floor muscle strength was assessed using vaginal palpation with modified Oxford Grading Scale. Pulmonary function was determined using a clinical spirometer according to the guidelines of the American Thoracic Society. Respiratory muscle strength and maximal inspiratory pressure were evaluated using a patient-specific threshold pressure device (POWERbreathe K5 series). **Result**: Analyzing the results, the positive correlation between pelvic organ muscle strength score and respiratory function test parameters including forced expiratory volume in the first second of expiration FEV_1 ($r=0.702$; $p<0.001$), ratio of FEV_1 to FVC (FEV_1 /FVC) ($r=0.459$; $p=0.028$), and forced expiratory flow at 25% to 75% ($r=0.581$; $p=0.004$), peak expiratory flow ($r=0.619$; $p=0.002$) was found. **Conclusion:** Results of our study indicated that pelvic muscle strength can affect respiratory function in middle age women without pelvic organ prolapse. According to these findings, it is important to focus on evaluating pulmonary functions in the planning of appropriate rehabilitation programs in female patients with pelvic floor dysfunction. Further study is needed with increased sample size.

Key Words: Pelvic floor muscle strength, pulmonary function, respiratory muscle strength.

ORAL FULL TEXTS

O-01 URINARY DIARY AND BLADDER TRAINING

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Abstract

Urinary diary is the standard first step of the behavioral program. Urinary diaries are important primary tools that reveal both the initial symptoms of the patients and the effectiveness of the treatment. Guidelines in this area for the evaluation of urinary incontinence and other storage and voiding function disorders recommend the use of the urinary diary. Keeping of urinary diaries during daily life and in house setting is important. The patient's compliance with this process is essential in urinary daily success. When frequency becomes habitual, it may cause; decrease in functional bladder capacity, detrusor hyperactivity and in some cases urge urinary incontinence. Bladder training, one of the behavioral treatments, has been shown to be effective for detrusor hyperactivity in the literature. This behavioral treatment is recommended as the first initial treatment for detrusor hyperactivity in adults because it is a non-invasive procedure. During bladder training which is a formal health education program that takes 6-12 weeks (8 weeks on average), Patients are taught to urinate at certain times. In compliance to bladder training program, It's recommended that patients; resist sudden urge to urinate, not go to the toilet even if there is a feeling of urination before the time expires, and postpone the micturition, also go to the toilet when there is no urine feeling when the time of micturition is reached. In urinary daily and bladder training, the urogynecology nurse plays an important role in the patient's adaptation to process.

Key words: Urinary diary, bladder training, urogynecology, nursing.

Introduction

In the evaluation of urogynecologic patients, also urinary diary is requested from the patient, with detailed medical history. Urinary diary is the standart first step of the behavioral program. The micturition time chart records the timing of voids in 24 hours. Urinary diaries are important primary tools that reveal both the initial symptoms of the patients and the effectiveness of the treatment. Urinary diaries is a semi-objective tools that in due time uncover; Frequency of urination, amount of urine, amount and type of liquid intake, frequency or severity of incontinence. The urinary diary may also include; fluid intake, incontinence episodes, pad usage, and the degree of incontinence as well as a record of episodes of urgency

and sensation and activities performed during or immediately preceding the involuntary loss of urine (1,2,3).

Suggestions of guidelines for urogynecology field?

NICE (National Institute for Health and Care Excellence) (Level of Evidence, 3), ICI (International Consultation on Incontinence) (Level of Evidence C), AUA (American Urologic Association) (Grade 3), EUA (European Association of Urology) (Grade A) for the evaluation of urinary incontinence and other storage and voiding function disorders recommend the use of the urinary diary (2,4,5).

How many days should a urinary diary be administered; Though 7 day urinary diaries are the most sensitive and decisive, since most patients cannot abide by this duration and has bad compliance, most clinicians use a 3-day urinary diary (6). Recommendations for diary duration vary considerably including 24 hours, 3 days or 7 days. 3–7 day urinary diary gives objective informations about; average urination volume, occurence of UI during day and night and frequency of UI (2,4,5).

Keeping of bladder diaries during daily life and in house setting is important. Situations like vacationing, fasting etc may prevent objective outcome. The success of urinary diaries requires patients to fully understand urinary symptoms, overactive bladder symptoms (to be able to distinguish between differences stress and emergency), and to record their micturition habits in a timely and accurate manner. It's also imperative that the patient comply with the process (3). It's important to explain to the patient, in detail, how to fill out bladder diaries. If the patient does not understand how to fill the urinary diaries, the desired result will not be achieved and it will cause a waste of time. So that, a urogynecology nurse should; explain how to fill out bladder diaries via individual or group sessions using examples, answer patiens' questions and make sure that the instructions are understood and explain if there is any unclear points. Compliance may become difficult as additional substances increase in the urinary diary (7,8,9). Today, as an alternative to urinary diaries in printed form, electronic urinary diaries are used (10).

What is bladder training?

Women experiencing severe urgency, without urge urinary incontinence or incontinence have a tendency to frequent urination. When frequency (usually more than 7) becomes habitual, it may cause; decrease in functional bladder capacity, detrusor hyperactivity and in some cases urge urinary incontinence. Detrusor hyperactivity ultimately results in a sudden urgency, while ongoing urgency leads to frequent urination, which continues in the form of a cycle. This cycle

can be broken by creating a micturition plan through bladder training or by using a progressive delayed micturition program (11).

Bladder training, one of the behavioral treatments, has been shown to be effective for detrusor hyperactivity in the literature. This behavioral treatment is recommended as the first initial treatment for detrusor hyperactivity in adults because it is a non-invasive procedure. Bladder training is about getting rid of bad habits, learning good habits, and putting you back in control rather than your bladder controlling you and your life (12). During bladder training, which is a formal health education program that takes 6-12 weeks (8 weeks on average). Patients are taught to urinate at certain times. Aim of bladder training is to; Reduce micturition frequency, increase bladder capacity, to break the cycle of pollakuria and urgency by restoring normal bladder function. Bladder training is recommended primarily for urge and mixed incontinence treatment, as well as stress urinary incontinence treatment.

Bladder training is established through three essential principles; a-Education patient, b- Systematic and predetermined urination program, c- Posivitely encouraging. During this training program, the patient is to instructed to suppress the need to urinate, to postpone urination, to urinate at the time specified in the program, not when the need arises. Before Begin Bladder Training; First, must be sure that there is no urinary infection. Lower urinary system and micturition function explain to patients. By having the patients fill out the bladder diary, patients' mictutition intervals are determined. Information is provided about bladder training program. As long as the patients is awake, they are asked to urinate according to the predetermined schedule. Then, by increasing the range of mation over time, a maximum of three to four hours is regulated. When bladder have successfully is trained bladder into good habits. Need to practice these habits for the rest of life.

In compliance to bladder training program, It's recommended that patients; resist sudden urge to urinate, not go to the toilet even if there is a feeling of urination before the time expires, and postpone the micturition, also go to the toilet when there is no urine feeling when the time of micturition is reached (13,6). Initial results in bladder training appear within a few weeks, but may take 3 months to get meaningful results (9,13). Patient motivation and compliance are the most important factors in the success of bladder education program. Bladder training requires active participation and collaboration of a dedicated and motivated patient.

In case of sudden urgency, there are some strategies that patiets can make (13,14). **These strategies;**

When feel a sudden urge;

- Stop and stay still. Sit down if you can.

- Quickly squeeze your pelvic floor muscles 3-5 times, don't relax your muscles.
- Loosen the rest of your body. Take a deep breath
- Concentrate on suppressing the feeling of urgency.
- Wait until the sudden urgency has passed.
- Walk to the toilet at normal speed
- If you feel a sudden urgency until you go to the toilet, stop and remove the sudden urgency again.
- Confirmatory affirmations such as «my bladder is under my control» or «I can wait» may also be useful.
- Put firm pressure on the perineum (crotch area). You can do this by crossing your legs or sitting down on a firm surface
- Can be counted backwards from 100.

These recommendations should be explained to the patients. Patients may try all of these recommendations to control the urgency and make the bladder wait.

As a result, urinary diary is the standard first step of behavioral program. The patient's compliance to this process is essential for urinary daily success. Urinary daily is also beneficial in the treatment process. Bladder training is considered to be the first line treatment of detrusor hyperactivity, especially UI symptoms. Although various protocols exist, the basic principles are essentially the same. Further research is needed to improve the effectiveness of bladder training in the future. The efficacy of bladder training has been proven in the literature, but its limitations in clinical practice remain. The nurse has an important role in the patient's adaptation to process in urinary daily and bladder training.

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O-03 INNOVATIVE APPROACHES TO URINARY INCONTINENCE: LITERATURE REVIEW

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Abstract

Introduction and Aim: Today, in line with the advances in technology, innovative methods have been developed to relieve the symptoms of Urinary incontinence (UI) and improve the quality of life of individuals. Aim is to investigate innovative approaches for reducing the symptoms of UI and improving quality of life in line with the literature.

Material and Method: In study, PubMed/Medline, CINAHL, EMBASE, Cochrane Library and Google Scholar database were searched using the "urinary incontinence, innovative", "mobile application", "virtual reality", "wearable technology" and "complementary alternative medicine". According to search results, 16 research papers in the last decade, excluding surgical and drug applications, were evaluated.

Results: Wearable technology, virtual reality, gerontechnology, mobile applications and complementary and alternative medicine were found to be the studies carried out within the scope of innovative approaches to UI. The studies were mostly conducted in 2019, designed as randomized controlled and pilot studies. The studies were found to aim to improve the quality of life and improve the urinary symptoms of patients through methods such as research on device development and improvement of their effectiveness, facilitating compliance with pelvic floor exercises with mobile applications and video games, preventing UI-related wound development and reducing stress in urodynamic examinations.

Conclusion: Innovative approaches were found to be effective in relieving symptoms and improving quality of life in individuals with UI. According to the study results, it is believed that innovative practices can also be used in clinical applications.

Keywords: Urinary incontinence, innovative practices, innovation, quality of life, nursing.

Introduction

Continence is the ability to retain urine in the bladder, where mixing is performed voluntarily (1). In order to maintain continence, a healthy genitourinary system, adequate cognitive functions, motivation to maintain continence, hand coordination in order to take off the clothes on time, proper environment for going to the toilet and mobility problems should be avoided. The deterioration of any of these may cause urinary incontinence (UI) in the individual (2). UI, in the last report of the International Continence Society (ICS) is defined "involuntary loss of urine"(3).UI, which is seen as a widespread problem throughout the world, is a health problem that affects all age groups more frequently than women and affects all kinds of life, such as work life, social and sexual life (4). Although UI is not a life-threatening condition, skin damage caused by constant wetness, bad odor and moisture adversely affects the quality of life of the patients both physically and psychologically (5). Various innovative methods are being developed in order to solve the problem of UI which is a common health problem and to increase the quality of care. The aim of this study is to review literature studies on innovative approaches to reduce urinary incontinence symptoms and improve quality of life.

In study, PubMed/Medline, CINAHL, EMBASE, Cochrane Library and Google Scholar database were searched using the "urinary incontinence, innovative", "mobile application", "virtual reality", "wearable technology" and "complementary alternative medicine". According to search results, 16 research papers in the last decade, excluding surgical and drug applications, were evaluated. Most of the studies were conducted in 2019, they were designed as randomized controlled and pilot studies, and in five of them, nurses researchers were included in the multidisciplinary team. According to the sample group; 1 of the studies was conducted with pediatric patients, 1 with male patients, 1 with both male and female patients and the remaining 13 studies were conducted with female patients. The number of samples ranged from 1 to 240. Stress type urinary incontinence was found mostly in the studies. The studies were found to aim to improve the quality of life and improve the urinary symptoms of patients through methods such as research on device development and improvement of their effectiveness, facilitating compliance with pelvic floor exercises with mobile applications and video games, preventing UI-related wound development and reducing stress in urodynamic examinations. Before and after the methods used in the studies, urinary symptoms and quality of life questionnaire were evaluated using scales. The studies were conducted in the fields of wearable technology, virtual reality, gerontology, mobile applications and complementary and alternative medicine.

Mobile applications (n = 5) were mostly performed with postpartum women. One of the studies was a case study of the urology nurses association and the others were randomized controlled trials. The benefits of mobile application use in studies include reducing the cost of UI management, strengthening pelvic floor muscle training with personalized exercise program and improving UI symptoms (6,7,8,9,10).

Wearable technology studies (n=5) were used in pediatric, male and female patients. In the studies, bladder sensor for pediatric patients with overactive bladder, silicone lingerie for elderly male patients with urge incontinence, bladder neck brace for women with stress urinary incontinence and a disposable tampon shaped electrostimulation device are innovative products designed for wearable technology. It was stated that the use of innovative products was effective in the treatment of UI symptoms, and that some products were commercially marketed based on the results of this study (11,12,13,14,15).

Complementary and alternative medicine studies (n=3) were found to include acupuncture, hypnotherapy and aromatherapy for women with UI (16,17,18). With aromatherapy application, the effect of various oils on reducing stress and reducing blood pressure during urodynamics was investigated. In another study, hypnotherapy and drug therapy were compared, and both hypno therapy and drug therapy were found to be curative in urge UI. Acupuncture has been found to be effective in reducing mixed UI symptoms.

In studies with virtual reality technology (n = 2), participants were asked to manage a video game by sitting on a specially designed pressure platform and managing pelvic movements. Virtual reality applications have been found to be effective in improving UI symptoms, as well as participation in pelvic floor muscle exercises and increase patient satisfaction (19,20).

In the study, which is a joint study of gerontechnology unit and wound care nurses, a sensor system bed was developed to detect involuntary body movements related to void desire (21). In study, the relationship between involuntary body movements and pulse variability parameters perceived by sensors was investigated. It was found that there was a statistically significant relationship between the parameters that perceived movement in the hip and thigh region and the desire for voiding. Pulse variability was also found to have a significant tendency to void desire ($p<0.05$).

Conclusıon

The use of innovative approaches to UI was found to increase today. These were advances in wearable technology, mobile applications, complementary and alternative medicine, virtual reality, and gerontology. Innovative approaches were found to be effective in relieving symptoms and improving quality of life in individuals with UI. Based on the results of the study, it is believed that innovative practices can also be used in clinical applications. It is recommended to increase future multidisciplinary, randomized controlled trials in this regard

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O-04 Determination Of Toilet Procrastination Behaviors And Incontinence Problems Of Nurses

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Introduction and Aim:

Incontinence problems lead to many psychosocial and physical problems, but most of the health problems that are not remedied due to embarrassment are among the leading problems. Incontinence problems should be questioned not only inpatient groups but also in risky groups. Nurses and caregivers are at the top of this risk group.

In the literature, there were few studies about nurses showing toilet procrastination behaviour, and there was no language unity in defining the problem.

When we investigate how they express such problems in literature, we have encountered very different nomenclature. A few of these nomenclatures were as follows; "Nurses' Bladder", "Infrequent Voiders Syndrome", "Voiding Dysfunctions", "Lazy Bladder/ Delay Voiding", And "Female Lower Tract Symptoms (Luts)"(1,2,3,4,5). Nevertheless, seen that these definitions do not emphasise this behaviour problem enough. In our study, instead of describing it as a health problem, we wanted to call it a toilet procrastination behaviour because we see it as a behavioural problem/neglect.

This study aims to determine the frequency and risk factors of incontinence problems and **toilet procrastination behaviours** of nurses.

Methods:

This is a pilot prevalence and risk identification study to represent nurses in Turkey. With n=161000 registered nurse was determined in turkey, from TUIK 2017(Turkey National Statistics Agency) data as a universe. The power analysis was calculated through the RAO Soft site with a 5% error margin in the 90% confidence interval, and the number to be sampled was 271 nurses. The questionnaire prepared by the researchers was shared on the internet for 4 weeks by using various social media channels and the first 271 people who answered all questions were accepted to the study. A t-test, chi-square analysis, was used for evaluation of data besides descriptive statistical methods (frequency, percentage, arithmetic mean and standard deviation).

Results:

In our study, the mean age of women was 33.1 ± 0.47; the BMI was found to be 23.7 ± 0.24. It was determined that BMI showed normal distribution. 64.6% of the participants were married, 97.8 were women, 32.5% had completed master's and higher education.

It was found that 15% of nurses worked for 21 years and more and 26.6% experienced economic difficulties. 71.2% of the participants stated that their work tempo was exhausting and they rarely sat.

The most extended working areas of the participants were service with 39.9%, intensive care unit with 25.1%, operating room with 11.1% and outpatient clinic with 11.1%.

It was seen that 15.8% of the women (n = 265) had a vaginal birth and the mean number of children was 1.10 ± 0.12. It was also learned that only 16% of women gained weight under 13 kg in pregnancy and 4.4% of them were born more than 4000 kg of their heaviest babies.

When toilet habits were evaluated, 98.9% of the nurses showed procrastination behaviour, 91.1% of them stated meticulousness and 98.9% as workload as a cause for this procrastination behaviour.

42.8% of the participants were nurses with urinary incontinence; 42.8% of them had urge symptoms, and 40.2% of them had problems with urinary bladder failure. 77.5% of the study group reported gas incontinence and 62.7% reported that they rarely experienced faecal leakage.

Comparative analysis showed that low economic status, high BMI and high birth weight increased the incontinence problems.

Conclusions:

As a result of this study, it was seen that nurses neglect themselves because of their love of the profession and human beings, and they show detrimental attitude to their health in the long term and toilet procrastination behaviours which is an unhealthy attitude are common. In addition to urinary incontinence, gas and faecal incontinence problems are seen to be higher than the prevalence of the population.

The institutions where nurses work should make revisions to make them feel that they are valuable. The workload of nurses should be reduced, and breaks should be compulsory if necessary. It is only with the support of employers that it is possible to create appropriate opportunities for nurses to show their self-sacrifice to their patients. It is essential to be able to rest in the respectable environments they deserve so that they feel they are valuable, and to encourage them to take healthy breaks and to take necessary breaks that will allow them to drink water and go to the toilet in order to prevent the postponement of their physiological needs. In the long run, with the contribution of institutions to increase the quality of life of nurses, patient care quality and job loyalty will increase.

Keywords: Nurse Bladder, Incontinence, Delay Behavior, Workload, Toilet Procrastination

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O-05 URINARY DIARY AND BLADDER TRAINING

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Abstract

Urinary diary is the standard first step of the behavioral program. Urinary diaries are important primary tools that reveal both the initial symptoms of the patients and the effectiveness of the treatment. Guidelines in this area for the evaluation of urinary incontinence and other storage and voiding function disorders recommend the use of the urinary diary. Keeping of urinary diaries during daily life and in house setting is important. The patient's compliance with this process is essential in urinary daily success. When frequency becomes habitual, it may cause; decrease in functional bladder capacity, detrusor hyperactivity and in some cases urge urinary incontinence. Bladder training, one of the behavioral treatments, has been shown to be effective for detrusor hyperactivity in the literature. This behavioral treatment is recommended as the first initial treatment for detrusor hyperactivity in adults because it is a non-invasive procedure. During bladder training which is a formal health education program that takes 6-12 weeks (8 weeks on average), Patients are taught to urinate at certain times. In compliance to bladder training program, It's recommended that patients; resist sudden urge to urinate, not go to the toilet even if there is a feeling of urination before the time expires, and postpone the micturition, also go to the toilet when there is no urine feeling when the time of micturition is reached. In urinary daily and bladder training, the urogynecology nurse plays an important role in the patient's adaptation to process.

Key words: Urinary diary, bladder training, urogynecology, nursing.

Introduction

In the evaluation of urogynecologic patients, also urinary diary is requested from the patient, with detailed medical history. Urinary diary is the standart first step of the behavioral program. The micturition time chart records the timing of voids in 24 hours. Urinary diaries are important primary tools that reveal both the initial symptoms of the patients and the effectiveness of the treatment. Urinary diaries is a semi-objective tools that in due time uncover; Frequency of urination, amount of urine, amount and type of liquid intake, frequency or severity of incontinence. The urinary diary may also include; fluid intake, incontinence episodes, pad usage, and the degree of incontinence as well as a record of episodes of urgency

and sensation and activities performed during or immediately preceding the involuntary loss of urine (1,2,3).

Suggestions of guidelines for urogynecology field?

NICE (National Institute for Health and Care Excellence) (Level of Evidence, 3), ICI (International Consultation on Incontinence) (Level of Evidence C), AUA (American Urologic Association) (Grade 3), EUA (European Association of Urology) (Grade A) for the evaluation of urinary incontinence and other storage and voiding function disorders recommend the use of the urinary diary (2,4,5).

How many days should a urinary diary be administered; Though 7 day urinary diaries are the most sensitive and decisive, since most patients cannot abide by this duration and has bad compliance, most clinicians use a 3-day urinary diary (6). Recommendations for diary duration vary considerably including 24 hours, 3 days or 7 days. 3–7 day urinary diary gives objective informations about; average urination volume, occurence of UI during day and night and frequency of UI (2,4,5).

Keeping of bladder diaries during daily life and in house setting is important. Situations like vacationing, fasting etc may prevent objective outcome. The success of urinary diaries requires patients to fully understand urinary symptoms, overactive bladder symptoms (to be able to distinguish between differences stress and emergency), and to record their micturition habits in a timely and accurate manner. It's also imperative that the patient comply with the process (3). It's important to explain to the patient, in detail, how to fill out bladder diaries. If the patient does not understand how to fill the urinary diaries, the desired result will not be achieved and it will cause a waste of time. So that, a urogynecology nurse should; explain how to fill out bladder diaries via individual or group sessions using examples, answer patiens' questions and make sure that the instructions are understood and explain if there is any unclear points. Compliance may become difficult as additional substances increase in the urinary diary (7,8,9). Today, as an alternative to urinary diaries in printed form, electronic urinary diaries are used (10).

What is bladder training?

Women experiencing severe urgency, without urge urinary incontinence or incontinence have a tendency to frequent urination. When frequency (usually more than 7) becomes habitual, it may cause; decrease in functional bladder capacity, detrusor hyperactivity and in some cases urge urinary incontinence. Detrusor hyperactivity ultimately results in a sudden urgency, while ongoing urgency leads to frequent urination, which continues in the form of a cycle. This cycle

can be broken by creating a micturition plan through bladder training or by using a progressive delayed micturition program (11).

Bladder training, one of the behavioral treatments, has been shown to be effective for detrusor hyperactivity in the literature. This behavioral treatment is recommended as the first initial treatment for detrusor hyperactivity in adults because it is a non-invasive procedure. Bladder training is about getting rid of bad habits, learning good habits, and putting you back in control rather than your bladder controlling you and your life (12). During bladder training, which is a formal health education program that takes 6-12 weeks (8 weeks on average). Patients are taught to urinate at certain times. Aim of bladder training is to; Reduce micturition frequency, increase bladder capacity, to break the cycle of pollakuria and urgency by restoring normal bladder function. Bladder training is recommended primarily for urge and mixed incontinence treatment, as well as stress urinary incontinence treatment.

Bladder training is established through three essential principles; a-Education patient, b- Systematic and predetermined urination program, c- Posivitely encouraging. During this training program, the patient is to instructed to suppress the need to urinate, to postpone urination, to urinate at the time specified in the program, not when the need arises. Before Begin Bladder Training; First, must be sure that there is no urinary infection. Lower urinary system and micturition function explain to patients. By having the patients fill out the bladder diary, patients' mictutition intervals are determined. Information is provided about bladder training program. As long as the patients is awake, they are asked to urinate according to the predetermined schedule. Then, by increasing the range of mation over time, a maximum of three to four hours is regulated. When bladder have successfully is trained bladder into good habits. Need to practice these habits for the rest of life.

In compliance to bladder training program, It's recommended that patients; resist sudden urge to urinate, not go to the toilet even if there is a feeling of urination before the time expires, and postpone the micturition, also go to the toilet when there is no urine feeling when the time of micturition is reached (13,6). Initial results in bladder training appear within a few weeks, but may take 3 months to get meaningful results (9,13). Patient motivation and compliance are the most important factors in the success of bladder education program. Bladder training requires active participation and collaboration of a dedicated and motivated patient.

In case of sudden urgency, there are some strategies that patiets can make (13,14). **These strategies;**

When feel a sudden urge;

- Stop and stay still. Sit down if you can.

- Quickly squeeze your pelvic floor muscles 3-5 times, don't relax your muscles.
- Loosen the rest of your body. Take a deep breath
- Concentrate on suppressing the feeling of urgency.
- Wait until the sudden urgency has passed.
- Walk to the toilet at normal speed
- If you feel a sudden urgency until you go to the toilet, stop and remove the sudden urgency again.
- Confirmatory affirmations such as «my bladder is under my control» or «I can wait» may also be useful.
- Put firm pressure on the perineum (crotch area). You can do this by crossing your legs or sitting down on a firm surface
- Can be counted backwards from 100.

These recommendations should be explained to the patients. Patients may try all of these recommendations to control the urgency and make the bladder wait.

As a result, urinary diary is the standard first step of behavioral program. The patient's compliance to this process is essential for urinary daily success. Urinary daily is also beneficial in the treatment process. Bladder training is considered to be the first line treatment of detrusor hyperactivity, especially UI symptoms. Although various protocols exist, the basic principles are essentially the same. Further research is needed to improve the effectiveness of bladder training in the future. The efficacy of bladder training has been proven in the literature, but its limitations in clinical practice remain. The nurse has an important role in the patient's adaptation to process in urinary daily and bladder training.

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O-06 THE CURRENT EVIDENCE ON THE ASSOCIATION BETWEEN THE URINARY MICROBIOME AND URINARY INCONTINENCE IN WOMEN

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Introduction

Microorganisms resident in and on the human body have long been overlooked with respect to their ability to influence human health. Medical studies have traditionally focused on disease-causing bacteria. Therefore, very little was known about the natural residents, or commensals, of the human body. In last decade has it become accepted that most human body sites are colonized with bacteria and that the majority of those bacteria are nonpathogenic (Thomas-White et al., 2016) The human body contains trillions of microbes, including bacteria, fungi and viruses. The community of microbes living in intimate association with our bodies, and the genes they contain, make up the human microbiome. Microbiome is defined as the ecological community of commensal, symbiotic and pathogenic microorganisms that share our body area (Lederberg & McCray, 2001). These microbial cells form a symbiotic "superorganism" with human. Roughly 10% of the human organism is composed of human cells, while 90% is composed of microbial cells (Aslan & Altındiş, 2017). The first large-scale mapping of the human microbiome using culture-independent methods was the Human Microbiome Project (HMP). The HMP is one of several international efforts to use metagenomic analysis to study human health. It is estimated that there are 10 times as many microbial cells than human cells in and on our bodies (Turnbaugh et al., 2007).

How did Urinary Microbiota Studies Start?

The Human Microbiome Project (HMP) was established in 2008 with the aim of developing a comprehensive characterization of the human microbiome and analysis of its role in human health and disease. A major goal of the HMP is to characterize the metagenome (the combined genomes of all the microbes) of the microbiomes of 300 healthy people, over time. Five body areas are sampled: Skin, mouth, nose, colon, and vagina. (HMP,2019).

Initially the HMP did not include investigation of the bladder microbiome. One of the reasons is about ethical situations. It was considered unethical to obtain bladder biopsies or suprapubic aspirates from healthy individuals to characterize the bladder microbiome while avoiding sample contamination with microorganisms from the urethra. The other reason was that bladder and urine were accepted as sterile. The bladder and urine have long been considered sterile in healthy individuals because of technical difficulties in characterizing the full spectrum of urinary bacterial species using standard microbiological methods Alfano, et al., 2016; Aragón et al., 2018).

But today, this old dogma was challenged after culture-independent 16S rRNA gene sequencing and extended quantitative urine culture (EQUC) with mass spectrometry (MALDI-TOF). Advances in molecular biology techniques and culture methods have allowed definition of a

specific microbiome associated with several body sites previously believed to be sterile, including the urinary tract (UT) (Lewis et al., 2013; Hilt et al., 2014).

The use of 16S rRNA gene sequencing and EQUC techniques have allowed researchers to identify bacteria that are uncultivable under standard culture conditions, and have identified a polymicrobial community of bacteria that reside in the urinary tract (Karstens et al., 2016; Hilt et al., 2014).

Standard culture techniques could be used for up to 24 hours. But EQUC techniques The EQUC technique allowed the samples to be examined for longer than 24 hours. These technological advances have allowed the detection of microbes not just in voided urine which may carry contaminants from outside the urinary tracts e.g., the vulvovaginal area, but also in catheterized urine and suprapubic bladder aspirates from asymptomatic individuals. Using expanded quantitative urine culture (EQUC), we isolated bacteria from 80% of examined urine samples collected by transurethral catheter, most (92%) of which had been reported as "no growth," using a standard clinical microbiology urine culture protocol (Siddiqui et al., 2011; Wolfe et al., 2012;. Fouts et al., 2012; Pearce et al., 2014).

16S rRNA gene sequencing analysis showed microbiome similarities between catheterized and SPA urine specimens collected from the same patients and provided compelling evidence that the female urinary tract possesses its own unique microbiota (Wolfe& Brubaker, 2019). A considerable diversity of bacterial taxa has been found in catheterized urine from asymptomatic individuals. Lactobacillus, Corynebacterium, Streptococcus, Actinomyces, Staphylococcus, Gardnerella, Bifidobacterium are dominant bacterias of bladder. Hilt et al., 2014; Pearce et al., 2014).

These recent discoveries raised the question of whether, similarly to other mucosal sites, the urinary bladder harbors resident microbiota that support mucosal tissue integrity, immune barrier, and overall urinary health. Hence, studies have been directed toward characterization of the urinary microbiome and metagenome (the aggregate functional level of the urobiome) associated with urinary health and disease.

Urinary Microbiome Association with Urinary Incontinence

Urinary incontinence (UI) is a burdensome lower urinary tract disorder of involuntary void of urine, urinary frequency and nocturia, common among women of all ages, with a prevalence ranging from 30 to 60% in middle-aged and older women. UI is generally classified into three main subtypes including stress (SUI), urgency (UUI), and mixed UI (MUI) (Haylen et al. 2010; Govender et al., 2019).

- SUI is the complaint of urine loss associated with exertion such as cough, sneeze, lift, or laugh;
- UUI is the complaint of urine loss associated with urgency;
- women who have co-existing symptoms of stress and urgency UI are defined as MUI.

While several UI risk factors are known, including menopausal status, age, body mass index (BMI), and parity, the pathophysiology of UI, and particularly that of UUI and MUI, remains poorly defined.

Several urinary tract disorders have symptoms overlapping with UI and at the same time can coincide with UI, creating challenges in differential diagnosis but also in differential assessment of risk factors. Those include urinary tract infections (UTIs), overactive bladder syndrome (OAB), and interstitial cystitis (IC). OAB is a syndrome encompassing symptoms of urinary urgency, usually accompanied by frequency and nocturia, with or without UUI. IC is characterized by suprapubic pain, dysuria in addition to urinary frequency, urgency, and nocturia in the absence of UTIs (Price et al., 2018; Abernethy et al., 2017; Kline & Lewis 2016; Price et al., 2016;Haylen et al., 2010).

The mechanisms underlying clinical presentation similarities between the urinary tract disorders that present with urge for urination and incontinence is unknown. The search is on for culture-based and genomic sequence-based microbiome characteristics and metagenomic signatures of the urinary microbiota (defined here as urobiome) in order to better understand and differentially diagnose UI and manage the urinary tract disorders. Urinary microbiome studies using 16S rRNA gene sequencing have shown differences in microbiome profile between different subtypes of UI and asymptomatic individuals.

Urgency Urinary Incontinence(UUI)

Nearly 19% of women over the age of 40 suffer from Urgency Urinary Incontinence, a strong sensation of the need to urinate ("urgency") followed by immediate leakage of a large volume of urine. Fear of losing urinary control is associated with depression, anxiety, social isolation, reduced functional status, and overall negative impact on quality of life. Despite the devastating impact of UUI, we have yet to fully understand its underlying pathophysiology which is a significant barrier to developing targeted interventions geared toward eliminating or reducing symptoms (Stewart et al., 2003; Coyne et al., 2013; Coyne et al., 2014).

Urgency urinary incontinence (UUI) is a heterogeneous condition that usually is attributed to abnormalities in detrusor neuromuscular functioning and/or signaling. However, DO is only observed in approximately 58% of women with UUI and treatments aimed at reducing DO are ineffective for approximately half of the people that use them. Low-count bacteria in urine has been associated with symptoms of overactive bladder syndrome, including UUI (Hashim &Abrams, 2006; Nitti et al., 2010; Sorrentino et al., 2015).

Pearce et al. (2015) examined the relationship between treatment and microbiota with UUI positive women in their study. Study method was a 10-center, double-blind, double-placebo, and controlled. Approximately one-half of the urine samples (51.1%, 93/182) were sequence positive. Sequence-positive subjects were younger had a higher body mass index, and had a higher mean number of baseline UUI episodes. Race, ethnicity, previous anticholinergic use, or study treatment assignment did not differ between sequence-positive and sequence-negative cohorts. In sequence-positive urine samples, hierarchic clustering revealed 8 major urotypes. Nearly one-half of the sequence positive urine samples were dominated by the genus Lactobacillus (45%), followed by Gardnerella (17%), Prevotella (9%), Enterobacteriaceae (9%), Staphylococcus (3%), Aerococcus (2%) and Bifidobacterium (2%). The remaining cluster was labeled "Diverse" to signify those (13%) without a dominant genus. Sequence status was associated with baseline urgency urinary incontinence episodes, treatment response, and posttreatment urinary tract infection risk. In another study of Pearce et al. (2014),worked with UUI positive and negative women. They classified into 22 phyla, 34 classes, 69 orders, 150 families, and 386 genera. There were no statistically significant differences between the UUI

and non-UUI control cohorts based on these estimators of richness and diversity. Compared to the non-UUI microbiome, sequencing experiments revealed that the UUI microbiome was composed of increased Gardnerella and decreased Lactobacillus. They cultured 9 genera more frequently from the UUI cohort. The Lactobacillus species differed between cohorts. L. gasseri was more frequently cultured in samples from the UUI cohort, L. crispatus was more frequently cultured in samples from controls.

Karsten and et al.(2014) was to determine how the urinary microbiome is different between women with and without UUI. They identified these OTUs as belonging to 24 different Phyla from all urine specimens. At this level, 97% of the bacteria were classified as either Firmicutes, Proteobacteria, Actinobacteria, or Bacteroidetes. They found the relative abundance of 14 bacteria significantly differed between control and UUI samples. They did not detect any differences in the diversity or richness measures between control and UUI specimens. They also identified significant correlations with symptom severity in women with UUI. Result of the study that an increase in UUI symptom severity is associated with a decrease in microbial diversity in women with UUI.

Thomos-White and et al. (2016) aimed microbiome/microbiota characteristics would relate to clinically relevant treatment response to UUI medication per os. After 4 and 12 weeks they found; 10-mg groups had a decrease in species diversity , 10-mg nonresponder groups had a decrease in species diversity, 5-mg group increased in species diversity. Thet suggest following UUI treatment, certain microbiota characteristics appear to be associated with a clinically significant response to treatment.

Mixed Urinary Incontinence (MUI)

Mixed urinary incontinence (MUI) is the involuntary leakage of urine associated with both urgency and stress provocation. Of all incontinence types, MUI is the most refractory to treatment, its pathophysiology the least understood and therapies the least standardized, posing significant treatment challenges. Women with MUI face a therapeutic dilemma because of the dual nature of their condition; treatment of stress urinary incontinence (SUI) symptoms may exacerbate urgency while treatment of urgency urinary incontinence (UUI) symptoms may worsen SUI (Minassian, Bazi, Stewart,2017; Komesu et al., 2018).

In literature we found only one study which work about MUI and microbiota. Komesu and et al. (2018) worked with MUI positive women. They found that MUI participants had higher mean BMI, were more commonly Hispanic, more commonly had recurrent UTIs and more commonly used vaginal estrogen compared with controls. The proportion of women with Lactobacillus-predominant microbiota (> 50% Lactobacillus in their samples) did not differ between MUI and controls. A High-Lactobacillus (89.2% Lactobacillus) community had a greater proportion of controls. Overall, bacterial community types did not differ in MUI and controls. However, post-hoc analysis of women < 51 years found that bacterial community types distinguished MUI from controls. The current study suggests that Lactobacillus occurrence or predominance may not be the only predictor of urinary symptoms, but that Lactobacillus, in addition to combinations and proportions of other bacterial taxa, may influence MUI communities and the MUI microbiome.

Stress Uriner Inkontinans (SUI)

Stress urinary incontinence (SUI) is the complaint of involuntary leakage of urine on effort or exertion, or with sneezing or coughing (10). SUI can also occur with lifting, running, or any activities that increase the intra-abdominal pressure.It is the most common type of urinary incontinence with an age dependent prevalence of 29–75% .Present in approximately 40-60% of incontinent women before the age of 60 who incontinent women after the age of 60.Several risk factors are correlated to the onset and development of stress urinary incontinence, such as delivery mode, parity, menopause, chronic cough, obesity, and connective tissue dysfunction (Wood & Anger, 2014; Hunskaar et al. 2000).

In literature, limited number of reseraches are available about SUI as MUI. Thomas-White and et al. (2016) described the FUM analysis using 16S ribosomal RNA (rRNA) gene sequencing to characterize the cross-sectional relationships between FUM parameters and demographic and clinical characteristics of adult women undergoing surgery for SUI. They found increased microbial diversity, in particular community evenness, positively correlated with UUI and BMI symptoms, but not with SUI symptoms. Estrogen-positive groups (premenopausal and those currently on exogenous estrogen) have greater prevalence of Lactobacillus- predominant individuals (blue) than estrogen-negative group. Estrogen-negative group has a greater number of nonpredominant (multicolored) profiles compared to estrogen-positive populations.

Fok et al. (2018) studied preoperatively and again 3 months after surgery catheterized urine from a mix of SUI and pelvic organ prolapse patients (n = 126) Results showed that two bacterial species; *Atopobium Vaginae* and *Finegoldia Magna* were associated with preoperative urinary symptom severity. It is important to note that *Atopobium Vaginae* is part of the microbiome signature of bacterial vaginosis (the syndrome of disturbed vaginal microbiota) and may be associated with the urinary symptoms of dysuria reported by these women.

Results

The presence and response to urgency urinary incontinence (UUI) treatment appears related to FUM diversity and/or composition in adult women with UUI. Menopausal women not on exogenous hormones had increased microbial evenness and their FUM were less likely to be predominated by a single microbe. The diversity of the gut microbiota is associated with gut health and disease and this diversity responds to multiple changes within the individual, including diet and drug or antibiotic ingestions. It is not yet known whether this is also true of the FUM. The relationship between the FUM and the microbiota of nearby pelvic niches, especially the vagina, also requires study. It is presently unknown whether the bladder and vagina share a common community of microbes or whether different microbes colonize each of these distinct microbial environments. Although the information to date is limited, SUI does not appear to have a similar association with the FUM.

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O-07 Test-retest and Inter-rater Reliability of Five Times Sit to Stand Test in Pregnancy-Related Pelvic Girdle Pain

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Abstract

Background: Pelvic girdle pain (PGP) is a common musculoskeletal disorder during pregnancy, and functional mobility evaluation is very important for planning appropriate intervention programs.

Objectives: To investigate test-retest and interrater reliability of Five Times Sit-to-Stand (5TSS) test in pregnant women with and without PGP.

Methods: One hundred sixty-seven women in second/third trimester of pregnancy participated in two assessments, one week apart. The performance time was measured using a chronometer application of a mobile phone by two independent assessors, in order to investigate inter-rater reliability. Following tests of functional mobility, seven clinical tests were used to classify the subjects as with or without PGP.

Results: The 24.55% of subjects had PGP. Inter-rater reliability of 5TSS was excellent for subjects with and without PGP (ICC=0.999, 95% CI=1.0 to 1.0; ICC=0.999, 95% CI=1.0 to 1.0, respectively). Test-retest reliability of 5TSS was also very high for subjects with and without PGP (ICC=0.986, 95% CI=1.0 to 1.0; ICC=0.828, 95% CI=0.6 to 0.9, respectively).

Conclusions: The 5TSS test is a reliable functional mobility outcome measure in pregnant women with and without PGP. Further psychometric properties of the measure such as responsiveness, should be investigated in the future.

Keywords: Functional mobility, obstetric physiotherapy, outcome measure, prenatal evaluation, sacroiliac pain

Introduction

Pelvic girdle pain (PGP) is defined as pain experienced between the posterior iliac crest and the gluteal fold, particularly in the vicinity of the sacroiliac joints, which may radiate in the posterior thigh and can also occur in conjunction with/or separately in the symphysis pubis (1). PGP is related to the pelvic musculoskeletal system and arises often pregnancy (2). The prevalence of PGP about 20% (1).

The etiology of PGP is unknown (1,3). Hormonal, metabolic, traumatic, biomechanical, genetic, degenerative factors have been suggested about leading to pregnancy-related pelvic pain (1,4,5). According to European guidelines (COST ACTION B13- Working group 4) PGP generally arises in pregnancy and due to trauma or reactive arthritis. The diagnosis of PGP can be reached with specific clinical tests after exclusion of lumbar region disorders. Pain location and functional limitation is also important for diagnosis (1).

The risk factors of PGP are history of previous low back pain and trauma to the bony pelvis, pluripara and high-workload. Contraceptive pills, time interval since last pregnancy, height, weight, smoking are not considered as a risk factor for PGP (1,6).

Studies on pregnancy-related PGP presented that, 93% of subjects had symptoms three months after delivery (3). In a study of Albert et al. (2001), it was shown that 21% of women with severe pain due to pregnancy-related PGP had continuing pain after two years from delivery.

Functional mobility assessment of pregnant women with PGP is very important and necessary for planning appropriate intervention programs and evaluating their effectiveness (4). Since standing up from a chair is a necessary activity for standing and walking, and is frequently used in daily life, Five Times Sit to Stand (5TSS) test is used for evaluating functional mobility level and physical performance of different populations (7,8). Despite there are some studies which investigate test-retest and inter-rater reliability of 5TSS test in different populations in the literature (9-14), there is not any study about its reliability in pregnancy-related PGP.

Also, literature samples about pregnancy-related PGP are mainly about its diagnosis, prognosis, incidence, prevalence, risk factors and treatment (5,6,15-18). However, the number

of studies which evaluate reliability of performance-based functional mobility tests in this population is few (19). Therefore, this study was planned in order to investigate test-retest and inter-rater reliability of the 5TSS test as a functional mobility measure in pregnant women with and without PGP.

Methods

This study was conducted on pregnant women attending to routine obstetrical examination visits in a private hospital in Muğla-Turkey, in accordance with the Helsinki Declaration of Ethics Principles. Informed consent was obtained from all individual participants included in the study. Ethical and administrative approvals for the study were obtained from Clinical Research Ethical Board of Muğla Sıtkı Koçman University and Muğla Private Yücelen Hospital, respectively.

Subjects

As presented in study flow diagram (Figure 1), among a total of 202 pregnant women interviewed for the study, 167 fulfilled the inclusion criterion, signed the informed consent form and were included in the study. The inclusion criteria for the study were:

- age between 18-40 years
- singleton pregnancy beyond the first trimester
- being literate in Turkish
- being voluntary for participating in the study

The exclusion criteria for the study were:

- history of low back pain before pregnancy
- health problems (orthopedic, neurological, cardiorespiratory diseases except pregnancy-related PGP) which will influence sit to stand and walking activities
- gynecological or urological problems that mimic PGP
- pregnancy complications (preeclampsia, hypertension and diabetes due to pregnancy, etc.) except PGP,
- visual/hearing problems which may prevent participation to the study

After recording physical and sociodemographic characteristics, and obstetrical history of the subjects, 5TSS test was applied. All the subjects were instructed about the test and subjects were allowed a practice trial followed by one timed trial. A standard-high (43 cm) armless chair was used for 5TSS test (20).

In the 5TSS test, the participants completed five repetitions of sit-to-stand maneuver as fast as possible without using their hands to push up from the chair. Each individual was instructed to fold her arms across her chest to avoid using the hands (20,21). The test started with the assessor instructing the individuals to begin and ended when the individual sat back fully in the chair with her back coming to rest against the back of the chair (20). The subjects were instructed to perform the test at the fastest pace possible, and the performance time was measured using a chronometer application of a mobile phone by two independent assessors, in order to investigate inter-rater reliability.

Clinical Tests

At the beginning of the assessments, the participants were asked to mark their pain locations on a body diagram. In addition to pain location drawings in the pelvic girdle region, which was not related to an internal organ/potentially sinister pathology, seven clinical tests were applied in order to classify women as with or without pregnancy-related PGP. These clinical tests were: Active Straight Leg Raise Test (ASLR) (22), Posterior Pelvic Pain Provocation Test (P4) (23), Compression Test (24), Distraction Test (24), Patrick Faber Test (PF) (24), Gaenslen Test (GT) (25) and Long Dorsal Sacroiliac Ligament Palpation (LDSLP) (26).

Pregnant women who had at least one positive test of ASLR and P4 Tests; and at least two positive tests of the remaining tests (Compression Test, Distraction Test, PF, GT, LDSLP) were classified as pregnancy-related PGP group (1,19,27).

Clinical tests were applied by a physiotherapist different from the one who conducted functional mobility tests in order to provide assessor blindness. To avoid confounding results due to their pain-provoking characteristics, these tests were applied after the 5TSS test, which were re-tested after one week.

Statistical analysis

G-Power Statistical & Qualitative Data Analysis (version 3.1.9.3) was used to determine the sample size (effect size f=0.20, alpha level=0.05 and power=0.80, two groups and two measurements). In conclusion, 150 subjects were calculated as sufficient for statistical analysis.

Data were analyzed using the Statistical Package for the Social Science (SPSS) (version 24.0 for MAC). Quantitative variables were described as mean (standard deviation), and qualitative variables as number (%). The Kolmogorov–Smirnov test was used to determine whether data were normally distributed or not. Chi-square and independent samples t tests were

used for inter-group comparisons of the qualitative and quantitative data, respectively. Intraclass correlation coefficient (ICC) was used to test-retest reliability of 5TSS test; and interclass correlation coefficient-ICC was used to analyze interrater reliability. The ICC values were interpreted using the following guidelines: poor (<0.2), fair (0.21–0.40), moderate (0.41–0.60), good (0.61–0.80) and excellent (0.81–1.0) (19). Standard error of measurement (SEM) and minimal detectable change scores at the 95% confidence level (MDC_{95}) were calculated in order to determine the minimal difference needed to be exhibited for one to be confident that a true change in performance of an individual has occurred SEM values were calculated according to the formula: $SEM=SD\times\sqrt{1r}$, where r is the ICC reliability coefficient; and MDC_{95} values were calculated according to the formula: $MDC_{95}=SEM\times1.96\times\sqrt{2}$, where 1.96 represents the z score at 95% CI (19,28,29).

Results

The mean age of the study participants was 28.43±4.59 years. Seventy-eight (46.7%) women were in the second and 89 (53.3%) were in the third trimester of pregnancy. More than half (55.7%) had a university degree, all of them were married, and 46.1% were housewives. Among 167 pregnant women, 41 (24.55%) were determined to have pregnancy-related PGP according to the criteria explained in the method section. Physical and sociodemographic characteristics of the pregnant women with and without PGP were similar (Table 1).

Table 1. Physical and sociodemographic characteristics of the subjects with and without PGP

	Subjects with PGP **n=41** **Mean (SD)**	**Subjects without PGP** **n=126** **Mean (SD)**	**t**	**95% CI**
Physical characteristics				
Age (year)	27.80 (4.16)	28.63 (4.72)	-0.997	-0.8 to 2.5
Height (m)	1.62 (0.06)	1.63 (0.61)	-0.900	-0.0 to 0.0
Pre-pregnancy weight (kg)	63.87 (12.43)	64.01 (11.98)	-0.062	-4.2 to 4.4

Pregnancy weight (kg)		72.53 (12.00)	72.34 (11.73)	0.089	-4.4 to 4.0
Pre-pregnancy BMI (kg/m^2)		24.34 (4.76)	24.08 (4.29)	0.329	-1.8 to 1.3
Pregnancy BMI (kg/m^2)		27.59 (4.27)	27.20 (4.08)	0.528	-1.9 to 1.1
Sociodemographic characteristics				**x^2**	**p**
Education	Primary school	3 (7.3)	8 (6.3)	0.121	0.989
	Secondary school	5 (12.2)	14 (11.1)		
	High school	11(26.8)	33 (26.2)		
	University	22 (53.7)	71 (56.3)		
Occupation	Housewife	21 (51.2)	56 (44.4)	3.357	0.910
	Teacher/Academician	6 (14.6)	17 (13.5)		
	Office worker	9 (22.0)	38 (30.2)		
	Other	5 (12.20)	15 (11.9)		

PGP: pelvic girdle pain; BMI: body mass index; SD: standard deviation; CI: confidence interval; t: *t* test value; x^2: chi-square value; p: statistical significance value

The mean gestational week of all subjects was 26.51±6.76 weeks (27.98±6.91 and 26.03±6.66 weeks for women with and without PGP, respectively). The 46.7% of all subjects were in the second (13-16 weeks) and 53.3% were in the third (27-40 weeks) trimester. The 48.8% of subjects with PGP were in the second and 51.2% in the third trimester; while 46% of the subjects without PGP were in the second and 54% were in the third trimester. The groups were similar with regarding to their trimesters (x^2=0.94, p=0.759).

According to obstetrical histories, 52.1% of the subjects were primigravid and 64.1% were nulliparous. The 12% had vaginal birth, 25.5% had Cesarean section, 13.2% had D&C, and 13.8% had abortus histories. Obstetrical histories of the groups were similar (Table 2).

Table 2. Obstetrical history of the subjects with (n=41) and without (n=126) PGP

		Subjects with PGP n (%)	Subjects without PGP n (%)	x^2	p
Gravida	1	19 (46.3)	68 (54)	4.616	0.465
	2	12 (29.3)	36 (28.6)		
	3	8 (19.5)	12 (9.5)		
	≥4	2 (4.9)	10 (7.9)		
Abortus	0	37 (90.2)	107 (84.9)	2.064	0.559
	1	4 (9.8)	13 (10.3)		
	2	0	5 (4)		
	3	0	1 (0.8)		
D&C	0	34 (82.9)	111 (88.1)	2.621	0.454
	1	7 (17.1)	12 (9.5)		
	2	0	2 (1.6)		
	3	0	1 (0.8)		
Parity	0	23 (56.1)	84 (66.7)	3.031	0.387
	1	14 (34.1)	34 (27)		
	2	4 (9.8)	6 (4.8)		
	3	0	2 (1.2)		
Vaginal birth	0	34 (82.9)	113 (89.7)	3.409	0.333
	1	4 (9.8)	8 (6.3)		
	2	3 (7.3)	3 (2.4)		

	3	0	2 (1.6)		
	0	29 (70.7)	96 (76.4)		
Cesarean section	1	11 (26.8)	27 (21.4)	0.520	0.771
	2	1 (2.4)	3 (2.4)		

D&C: dilation and curettage; PGP: pelvic girdle pain; x^2: chi-square value; p: statistical significance value

According to the test results, all the subjects completed the 5TSS test in 13.61±3.69 s and 13.59±3.68 s, as recorded by the 1st and 2nd raters, respectively. There was no significant interrater difference for the 5TSS test (t=1.117, 95% CI=-0.0 to 0.0). Intergroup comparisons showed that subjects with PGP completed the 5TSS test in a longer time (Table 3).

Table 3. Intergroup comparison of the time of completing 5TSS test

	Subjects with PGP n=41 Mean (SD)	**Subjects without PGP n=126 Mean (SD)**	**t**	**95% CI**
1st rater (s)	15.18 (4.79)	13.09 (3.10)	-3.229	-3.4 to -0.8
2nd rater (s)	15.17 (4.79)	13.07 (3.09)	-3.263	-3.4 to -0.8

5TSS: Five times sit to stand test; PGP: pelvic girdle pain; (s): second; SD: standard deviation; t: *t* test value; CI: confidence interval

Test-retest and interrater reliability of the 5TSS test was excellent for both groups of subjects (Table 4). Absolute interrater and test-retest reliability (SEM and MDC_{95}) results are presented in Table 4 and 5, respectively.

Table 4. Relative and absolute interrater reliability of the 5TSS test

	1st- 2nd raters ICC	95% CI	SEM	MDC95
Subjects with PGP				
Test (n=41)	0.999	1.0 to 1.0	0.15 seconds	0.42 seconds
Retest (n=18)	0.999	1.0 to 1.0		
Subjects without PGP				
Test (n=126)	0.999	1.0 to 1.0	0.10 seconds	0.27 seconds
Retest (n=28)	0.996	1.0 to 1.0		
All subjects				
Test (n=167)	0.999	1.0 to 1.0	0.12 seconds	0.32 seconds
Retest (n=46)	0.999	1.0 to 1.0		

PGP: Pelvic girdle pain; 5TSS: Five times sit to stand test; ICC: Intraclass correlation coefficient (relative reliability); CI: confidence interval; SEM: Standard error of measurement (absolute reliability); MDC_{95}: Minimal detectable change at 95% CI

Table 5. Relative and absolute test-retest reliability of the 5TSS test

	Test-retest ICC	95% CI	SEM	MDC_{95}
Subjects with PGP (n=18)				
1st rater	0.986	1.0 to 1.0	0.56 seconds	1.54 seconds
2nd rater	0.983	1.0 to 1.0		
Subjects without PGP (n=28)				
1st rater	0.828	0.6 to 0.9	0.96 seconds	2.67 seconds
2nd rater	0.818	0.6 to 0.9		
All subjects (n=46)				
1st rater	0.949	0.9 to 1.0	0.80 seconds	2.22 seconds
2nd rater	0.945	0.9 to 1.0		

PGP: Pelvic girdle pain; 5TSS: Five times sit to stand test; ICC: Intraclass correlation coefficient (relative reliability); CI: confidence interval; SEM: Standard error of measurement (absolute reliability); MDC_{95}: Minimal detectable change at 95% CI

Discussion

This study, which aimed to evaluate interrater and test-retest reliability of the TSS test in pregnancy-related PGP was conducted on 167 pregnant women who were classified as subjects with or without PGP according to the results of clinical tests, pain drawings and pain histories.

It was an expected finding that, pregnant women with PGP completed the 5TSS test in a longer time; and this indicates impairment of functional mobility in pregnancy-related PGP. The subjects with PGP completed the 5TSS test in around 15 seconds. There is not any literature sample in which 5TSS test data was compared between pregnant women with and without PGP.

However, the time of completing 5TSS test was reported in a number of studies carried on different populations (10,11,13,30). Similar to the related findings of this study, all these studies show that, pathologies and conditions affect functional mobility at different levels.

This study showed that interrater and test-retest reliabilities of the 5TSS test were excellent for pregnant women. The findings are concordant with those of the literature samples about the interrater and test-retest reliability of the 5TSS test in different populations (9-14).

In regard to absolute reliability analysis, low SEM values for the 5TSS test imply there was little variability in performance for interrater and test-retest conditions. MDC_{95} values showed that, to be considered as a real change beyond measurement error, change in the 5TSS performance should exceed 1.54 seconds.

Therefore, it may be speculated that the 5TSS test outcome is a more rigorous criterion to detect real change above measurement error and to reflect realistic functional mobility improvements in pregnancy related PGP. Since the findings point out that repetitive sit to stand activity may be a more challenging activity than short term walking for pregnant women with PGP, 5TSS test may be a better choice of functional mobility measure for especially those having comparatively more difficulty in sit to stand activity than walking.

The literature samples about reliability and validity of functional mobility tests generally include only pregnant women with PGP. Since this study includes analysis of pregnant women both with and without PGP, the findings are considered to be generalizable to a wider pregnant population. However, normative values, cut-off points, predictive validity and responsiveness of the 5TSS test needs to be established in future studies.

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O-08 TURKISH VERSION OF PROLAPSE AND INCONTINENCE KNOWLEDGE QUESTIONNAIRE: PSYCHOMETRIC ASSESSMENT

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Abstract

Purpose: The aim of this study is to translate Prolapse and Incontinence Knowledge Questionnaire (PIKQ) into Turkish (TrPIKQ), and to investigate its reliability and validity.

Method: Two hundred and six volunteer participants with a mean age of 31.79±8.79 years were included. Comprehensibility of TrPIKQ, which was prepared according to a standard translation procedure, was tested in a pilot study (n=20). The participants were questioned about their physical and socio-demographic characteristics; obstetrical-gynecological histories and menstrual states; current medical complaints and reasons of applying to the clinics. In addition to TrPIKQ, the participants were asked to complete Turkish versions of the Incontinence Quiz (IQ), Global Pelvic Floor Bother Questionnaire (GPFBQ), Pelvic Floor Distress Inventory-20 (PFDI-20) and Pelvic Floor Impact Questionnaire (PFIQ-7). Retests were performed on 27 participants, after one week. Internal consistency, test-retest reliability and construct validity of the TrPIKQ were investigated.

Results: Internal consistency of the subscales of TrPIKQ (TrPIKQ-UI and TrPIKQ-POP) were high (Cronbach α=0.754 for both); item-total correlations were 0.127-0.576 and 0.217-0.509, respectively. Also, test-retest reliability of TrPIKQ-UI, TrPIKQ-POP and overall TrPIKQ were high (ICC=0.949, 0.911 and 0.878, respectively). TrPIKQ scores were highly correlated with IQ scores, and weakly correlated with PFDI-20 and PFIQ-7 scores ($p<0.05$).

Discussion: It was concluded that TrPIKQ is a reliable and valid tool to measure Turkish women's knowledge and awareness about urinary incontinence and pelvic organ prolapse.

Key words: Pelvic floor dysfunction, women's health, knowledge, awareness

Introduction

Urinary incontinence (UI) and pelvic organ prolapse (POP) are common symptoms of pelvic floor dysfunction (PFD) and have negative impacts on the quality of life of many women (1,2).

UI diminishes quality of life of women by causing physical discomfort, social complications, economic losses and embarrassment (3). The incidence of UI is reported to be 13% at young age, 35% in middle and advanced ages in women, and this rate increases during pregnancy and postpartum (4,5). In studies conducted in Turkey, the percentage of women with UI complain was reported as 23.9-49.5% (6-9).

POP occurs when the muscles, ligaments and other tissues supporting the pelvic organs are weakened or damaged. The prolapsed organs are usually the bladder, uterus, vagina and rectum (10,11). This problem is seen in 30-50% of women over the age of 50 (12).

Pelvic floor muscles (PFM) have an important role in sexual function by providing bladder and bowel control (13,14). When PFM is weakened or damaged, one or more forms of PFD may occur, such as bladder and intestinal incontinence, obstructive miction, constipation, pelvic pain, sexual dysfunction, POP and/or low back pain (11,13,14). In fact, 77.2% of patients with urinary, gastrointestinal and sexual symptoms have also been shown to have dysfunctional PFM (13).

In a research conducted by the International Continence Society in 2003, it was shown that there is lack of knowledge and awareness about urinary stress incontinence, which is the most common type of incontinence in women (11). The World Health Organization (WHO) has named UI as one of the "latest medical taboo". In countries such as England, Greece and South Africa, large-scale studies have been conducted towards the awareness of PTD, and it is emphasized that awareness of this treatable and preventable medical problem should be raised (15-17).

Although PFD is a common problem, many people do not have adequate knowledge and awareness of pelvic floor health. For this reason, women with PFD remain silent, do not discuss problems with health professionals and do not seek treatment (11,18). However, as many forms of PFD are preventable, PFD should be considered as a public health problem and information and awareness should be developed in the community and among health professionals (19,20). Since delays in seeking treatment may worsen symptoms and reduce

quality of life, it is important for health professionals to assess women's knowledge and attitudes about PFD.

Reliable and valid tools for assessing knowledge and awareness about PFD are limited in number and generalisability. Prolapse and Incontinence Knowledge Questionnaire (PIKQ) is one of these tools, and is composed of two subscales, each with 12 items: PIKQ-Urinary incontinence (PIKQ-UI) and PIKQ-Prolapse (PIKQ-POP). It has previously been used to assess PFD knowledge and awareness of women in fertile age (21,22), office-workers (11), and women from different races (23).

At the start date of this study, the only published reliable and valid Turkish tool for assessing knowledge about PFD was the Incontinence Quiz (IQ), which intended for just UI. Since the PIKQ was a measure assessing knowledge about not only UI but also POP, this study was planned to cross-culturally adapt it into Turkish, and to investigate its psychometric properties such as test-retest reliability, internal consistency, content validity, and construct validity on outpatients of obstetrics and gynecology clinics.

Method

Ethical and administrative approvals were obtained from the Human Research Ethical Board of the Muğla Sıtkı Koçman University (date: 22.11.2017, approval no: 170036) and General Secretary of the Association of Public Hospitals in Antalya Province (date: 26.09.2017, document no: 52415545-604.02), respectively. Also, permission for translating the scale into Turkish was obtained from the developers (Shah AD, date: 08.08.2017). The study conforms to the Declaration of Helsinki. All participants signed an informed consent form.

Translation Procedure

Guidelines by Guillemin et al (1993) and Beaton et al (2000) were followed for translation and cross-cultural adaptation process (24,25). Following the translation and back translation procedures, an expert committee composed of bilingual translators, authors and physiotherapist academicians confirmed the equality of the original and Turkish versions of the PIKQ.

Comprehensibility of the scale items was tested on 20 women patients, using a 4-point Likert scale (1=not comprehensible, 4=completely comprehensible). The ratio of items rated as

3 or 4 was 0.77, and indicated that the Turkish PIKQ (TrPIKQ) was quite comprehensible. In order to analyse the content validity of the TrPIKQ, a professional group composed of 10 women's health physiotherapists and gynecologists were asked to rate the relevance of the scale items on a 4-point Likert scale (1=not relevant, 4=completely relevant). The content validity index of the scale was calculated as 0.95, indicating that the TrPIKQ had a strong content validity (26,27).

Participants

The participants of this study were recruited from the Obstetrics and Gynecology Outpatient Clinics of two public hospitals in Antalya Province. After interviewing with 319 patients, 206 women who met the inclusion criteria and signed the informed consent were included in this study. The inclusion criteria were: being above 18 years; applying as an outpatient to the relevant institutions; and reading, writing and communicating in Turkish. The patients who had PFD with a neurological origin were excluded.

Assessments

The participants were questioned about their physical and socio-demographic characteristics; obstetrical-gynecological histories and menstrual states; current medical complaints and reasons for applying to the clinics. After completing the TrPIKQ, they were also asked to complete the IQ, Global Pelvic Floor Bother Questionnaire (GPFBQ), Pelvic Floor Distress Inventory Short Form (PFDI-20) and Pelvic Floor Impact Questionnaire (PFIQ-7):

TrPIKQ: The PIKQ is a self-administered knowledge scale consisting of 24 items (12 items for PIKQ-UI subscale and 12 items for PIKQ-POP subscale). The participants were asked to indicate their level of agreement with each item, on a 3-point Likert scale (agree, disagree, do not know). Each correct response was given "1" point; incorrect, missing or "don't know" responses were given "0" point. Scores were calculated for TrPIKQ-UI (0-12 points), TrPIKQ-POP (0-12 points) subscales, and for overall TrPIKQ scale (0-24 points). The higher score indicates a higher level of knowledge (28,29). For retest purpose, the scale was re-rated by the participants after one week.

IQ: The IQ which was developed by Branch et al. (30) was translated into Turkish by Kara et al. (2017), and it was shown to be reliable and valid in gynecology patients (31). It consists of 14 items and the participants were asked to mark each item as

"Agree/Disagree/Don't know". "Agree" for the 1st, 4th, 6th, 8th, 10th and 11th items, and "Disagree" for the 2nd, 3rd, 5th, 7th, 9th, 12th, 13th and 14th items were the correct responses. "Don't know" responses were taken as incorrect. Each correct response is 1 point, and the total score ranges between 0 and 14, higher scores indicate higher knowledge level (31).

GPFBQ: The GPFBQ was translated into Turkish by Doğan et al., (2015) and was shown to be valid and reliable (32). Each nine question of the scale has "yes" or "no" response options. If the answer is "yes" the extent of bother is reflected by the following options: "not at all" (1) or "only a little bit" (2), "somewhat" (3), "a moderate amount" (4), "a lot" (5). Thus, the total score is between 0 and 45, and the mean total score is multiplied by 20 for scoring between 0 and 100. A higher score indicates a more severe complaint (32).

PFDI-20: The PFDI-20 was developed to evaluate all symptoms of pelvic floor disorders and their severity. It consists of 20 items and three subscales including the Pelvic Organ Prolapse Distress Inventory-6 (POPDI-6), the Colo-Rectal-Anal Distress Inventory-8 (CRADI-8), and the Urinary Distress Inventory-6 (UDI-6). The responses for all items are "no=0" or "yes=1". If the subject's response is "yes", the symptom severity is graded as "unimportant=1", "little=2", "moderate=3" and "a lot=4". Each three subscales of the PFDI-20 are scored between 0-100. Therefore, the total score ranges between "0" and "300", and higher scores indicate more severe pelvic floor disorders (33).

PFIQ-7: The PFIQ-7 is used to evaluate the impact of PFDs on quality of life. It consists of seven questions for each three subscales: Urinary Impact Questionnaire (UIQ-7) under column heading "Bladder/urine", Colorectal-Anal Impact questionnaire (CRAIQ-7) under column heading "Bowel/rectum" and Pelvic Organ Prolapse Impact Questionnaire (POPIQ-7) under column "Pelvis/Vagina". All of the items use the following response scale: 0=not at all; 1=somewhat; 2=moderately; 3=quite a bit. The scores of three scales are between 0 (least impact) to 100 (greatest impact), and the total score of is between 0 and 300 (34).

Statistical analysis

Data were analyzed using the Statistical Package for the Social Sciences (SPSS) (version 24.0 for MAC). Intraclass correlation coefficient (ICC) and 95% confidence interval (CI) were used for the test-retest reliability. Based on the 95% confidence interval of the ICC estimate,

values less than 0.50, between 0.50 and 0.75, between 0.75 and 0.90, and greater than 0.90 were considered as poor, moderate, good, and excellent reliability, respectively (35).

Cronbach's α coefficient and item-total correlations were used for internal consistency analysis of both PIKQ-UI and PIKQ-POP subscales. Cronbach α coefficients of >0.80 were interpreted as "high", 0.60-0.79 as "moderate" and 0.40-0.59 as "low" reliability. In order to investigate the construct validity of the PIKQ and subscales (PIKQ-UI and PIKQ-POP), their correlations with the IQ was analysed. Spearman's test was also used for analysing correlations of PIKQ with other scales (GPFBQ, PFIQ-7 and PFDI-20). Correlations were interpreted as high if r>0.60, moderate if r=0.30-0.59, and low if r<0.29 (27,31,36-38).

Results

The age range of 206 participants was 18-78 years, and most of them were at reproductive age. More than half were married and housewives, and had an educational level under university. Physical and sociodemographic characteristics of the subjects are presented in Table 1.

Table 1. Physical and sociodemographic characteristics of the subjects

n=206	**Mean ± SD**
Physical characteristics	
Age (year)	31.79 ± 8.79
Height (cm)	165.32 ± 6.07
Weight (kg)	70.55 ± 10.98
BMI (kg/m^2)	25.88 ± 4.24
Sociodemographic characteristics	**n (%)**
Education	
Primary school	32 (15.5)
Secondary school	25 (12.1)

	High school	63 (30.6)
	University	86 (41.8)
Occupation		
	Housewife	106 (51.5)
	Office worker	13 (6.3)
	Worker	30 (14.6)
	Teacher	13 (6.3)
	Health professional	23 (11.2)
	Student	9 (4.4)
	Self-employed	12 (5.8)
Marital Status		
	Married	161 (78.2)
	Single	35 (17.0)
	Widow/divorced	10 (4.9)

BMI: Body Mass Index

According to the obstetrical histories, 20.4% women were nulliparous and 26.3% had three or more pregnancies. The vaginal birth rate was 45.6% and Cesarean section rate was low (18.4%). The percentage of women having more than three children (7.3%), D&C (4.9%) and abortion (9.7%) histories were also low. Only 20.4% of the participants reported a surgery history (Cesarean, appendectomy, cervical stenosis, etc.).

The 59.2% of subjects were pregnant, 24.3% had regular menstruation, 10.2% had irregular menstruation, and 6.3% were in menopause. The percentage of women with UI, POP and constipation complaint was 34.5%, 6.3% and 21.4%, respectively. None of them had fecal incontinence.

Table 2 presents the mean number of correct responses for Turkish PIKQ-UI, PIKQ-POP and overall PIKQ scales. Percentage of correct responses were calculated as: (number of correct responses/12)*100 for TrPIKQ-UI and TrPIKQ-POP, and (number of correct responses/24)*100 for overall TrPIKQ (39). Therefore, the participants correctly responded to the 68.04% of the TrPIKQ; 76.70% of the TrPIKQ-UI; and 59.94% of the TrPIKQ-POP. In addition, based on the suggestions by the developer of the scale, ≥80% correct responses in PIKQ-UI and ≥50% correct responses in PIKQ-POP scales were considered as knowledge proficiency (23). According to that classification, 42.7% (n=88) of the subjects had lack of knowledge about UI, and 24.3% (n=50) of the subjects had lack of knowledge about POP. The mean number of correct responses in TrPIKQ and IQ questionnaires, as well as the mean scores of GPFBQ, PFDI-20 and PFIQ-7 are presented in Table 2.

Table 2. The scores of TrPIKQ, IQ, GPFBQ, PFDI-20 and PFIQ-7

n=206	**Mean±SD**	**Total Score min-max**
Incontinence Quiz	7.9 ± 2.8	1-14.0
Global Pelvic Floor Bother Questionnaire	16.6 ± 12.8	0-77.8
Pelvic Floor Distress Inventory-20	28.0 ± 31.9	0-208.3
POPDI-6	11.1 ± 13.4	0-70.8
UDI-6	12.5 ± 16.2	0-87.5
CRADI-8	4.4 ± 8.4	0-59.4
Pelvic Floor Impact Questionnaire-7	12.2 ± 22.5	0-128.6
UIQ-7	7.7 ± 12.9	0-66.7
CAIQ-7	3.6 ± 9.8	0-66.7
POPIQ-7	0.9 ± 4.7	0-33.3
Prolapse and Incontinence Knowledge Questionnaire	16.3 ± 4.9	1-24

PIKQ-UI	9.2 ± 2.6	1-12
PIKQ-POP	7.2 ± 2.7	0-12

POPDI-6: Pelvic Organ Prolapse Distress Inventory-6; CRADI-8: Colo-Rectal-Anal Distress Inventory-8; UDI-6:Urinary Distress Inventory-6; UIQ:Urinary Impact Questionnaire; POPIQ:Pelvic Organ Prolapse Impact Questionnaire, CAIQ:Colorectal-Anal Impact Questionnaire; PIKQ-UI: Prolapse and Incontinence Knowledge Questionnaire-Urinary Incontinence; PIKQ-POP: Prolapse and Incontinence Knowledge Questionnaire-Pelvic Organ Prolapse

The Cronbach's α coefficient and item-total correlation analysis were used for internal consistency analysis of both TrPIKQ-UI and TrPIKQ-POP subscales. The overall internal consistency coefficients of both subscales were same and high (Cronbach α=0.754). Item-total correlations were between r=0.127 and r=0.576 for TrPIKQ-POP; and between r=0.217 and r=0.509 for TrPIKQ-POP. The second item in the TrPIKQ-UI and the first item in the TrPIKQ-POP had the lowest item-total correlations (r=0.127 and r=0.217, respectively). When these items were deleted, the Cronbach's α values (0.761 and 0.758, respectively) were very close to the general consistency coefficient, and indicated no significant effect on internal consistency (Table 3).

Table 3. Item analysis of TrPKIQ-UI and TrPKIQ-POP

Items	Items total correlation r	Cronbach α if item deleted	Items total correlation r	Cronbach α if item deleted
	TrPKIQ-UI		TrPKIQ-POP	
1	0.217	0.757	0.217	0.758
2	0.127	0.761	0.343	0.744
3	0.381	0.739	0.441	0.731
4	0.423	0.735	0.509	0.722
5	0.445	0.731	0.364	0.742
6	0.492	0.724	0.455	0.733
7	0.320	0.747	0.449	0.732
8	0.576	0.716	0.382	0.739
9	0.424	0.733	0.461	0.732
10	0.535	0.719	0.322	0.745
11	0.217	0.762	0.278	0.749
12	0.569	0.718	0.486	0.726

In order to investigate test-retest reliability of TrPIKQ, 27 participants completed the scale one week after the first assessment. Intraclass correlation coefficient (ICC) and 95% confidence intervals were used for the analysis, which showed high and significant correlations between the tests and retests, for both the subscales and the overall scale (Table 4).

Table 4. Test-retest reliability of TrPIKQ, TrPIKQ-UI and TrPIKQ-POP

n=27	**ICC**	**95% CI**
TrPIKQ	0.878	0.521-0.956
Urinary Incontinence (TrPIKQ-UI)	0.949	0.846-0.980
Pelvic Organ Prolapse (TrPIKQ-POP)	0.911	0.506-0.971

TrPIKQ: Turkish Prolapse and Incontienence Knowledge Questionnaire; ICC: Intraclass correlation coefficient (relative reliability); CI: confidence interval

Construct validity

There was a positive moderate-high correlation between the scores of TrPIKQ and IQ ($p<0.05$) indicating that the scale had a good construct validity. The scores of TrPIKQ had no correlations with GPFBQ ($p>0.05$); and had negative and poor correlation with PFDI-20 and its UDI-6 subscale ($p<0.05$). In addition, TrPIKQ and TrPIKQ-UI scale scores were in negative and poor correlation with PFIQ-7 and UIQ-7 subscales ($p<0.05$) (Table 5).

Table 5. The construct validity and correlations of TrPIKQ and subscales

n=206	*TrPIKQ-UI*	*TrPIKQ-POP*	*TrPIKQ*
	r (p)	r (p)	r (p)
IQ	0.634 (0.000)**	0.475 (0.000)**	0.596 (0.000)**
GPFBQ	-0.090 (0.199)	-0.088 (0.209)	-0.098 (0.162)
PFDI-20	-0.178 (0.010)**	-0.149 (0.033)*	-0.172 (0.013)*
POPDI-6	-0.098 (0.159)	-0.032 (0.649)	-0.072 (0.301)
UDI-6	-0.202 (0.004)**	-0.199 (0.004)**	-0.210 (0.002)*
CRADI-8	-0.097(0.167)	-0.084 (0.229)	-0.098 (0.163)
PFIQ-7	-0.191 (0.006)**	-0.103 (0.142)	-0.145 (0.037)*
UIQ-7	-0.206 (0.003)**	-0.121 (0.082)	-0.164 (0.019)*
CAIQ-7	-0.037 (0.599)	0.015 (0.834)	-0.004 (0.958)
POPIQ-7	-0.004 (0.949)	0.106 (0.131)	0.073 (0.300)

*p<0.05, **p<0.01

Q: Incontinence Quiz; GPFBQ:Global Pelvic Floor Bother Questionnaire***;*** POPDI-6:Pelvic Organ Prolapse Distress Inventory-6; CRADI-8:Colo-Rectal-Anal Distress Inventory-8; UDI-6:Urinary Distress Inventory-6; UIQ:Urinary Impact Questionnaire; POPIQ:Pelvic Organ Prolapse Impact Questionnaire, CAIQ:Colorectal-Anal Impact Questionnaire; PIKQ-UI: Prolapse and Incontinence Knowledge Questionnaire-Urinary Incontinence; PIKQ-POP: Prolapse and Incontinence Knowledge Questionnaire-Pelvic Organ Prolapse

Discussion

This study aimed to translate the PIKQ into Turkish and to investigate its psychometric properties in Turkish women. Mean age, sociodemographic characteristics, obstetric history and menstrual status of participants in this study were similar to those of previous studies which focused on the knowledge and awareness related with PFD (11,31,40).

In order to investigate the content validity of the scale, the opinions of women's health specialist physiotherapists and gynecologists were taken, and since the content validity index was 0.95, it was concluded that this scale was suitable for the purpose and had content validity (26,27).

During planning and data collection phases of this study, there was not any published language version of the original PIKQ, except German and Russian of a modified PIKQ-POP version. This modified scale was developed by Lyatoshinskaya et al. (2016), by adding four more questions to the original English version of PIKQ-POP (40). Following the data collection phase, it was noticed that another Turkish version of the scale was recently published (29).

In their study investigating the POP knowledge of German and Russian urogynecology patients, Lyatoshinskaya et al. (2016) have analysed 110 questionnaires for German and 95 questionnaires for Russian versions (40). They have stated that the 17-itemed modified German PIKQ-POP had good (x^2=138.921), but the modified Russian PIKQ-POP had poor (x^2=153.07) model fits. By removing item 13 from both language versions, they have found that 16-itemed German and Russian modified PIKQ-POP subscales had an acceptable internal consistency (Cronbach α=0.782 and 0.667, respectively). In the study of Çelenay et al. (2019), the previous Turkish versions of both PIKQ-UI and PIKQ-POP were also found to have a good internal consistency (KR-20=0.67 and 0.75, respectively) (29). Though being analysed with different statistical methods, it can be said that the internal consistency of the current TrPIKQ-UI (Cronbach α=0.754) is higher than the previous Turkish version. Also, the internal consistency of the current TrPIKQ-POP (Cronbach α=0.754) is similar to the German and previous Turkish versions, and higher than the Russian version.

The high ICC values in this study showed that the TrPIKQ-UI (0.949) and TrPIKQ-POP (0.911) had excellent test-retest reliability. This psychometric property has not been investigated for the German and Russian PIKQ-POP scales (40), and the ICC values found in this study are slightly higher than those of the previous Turkish version (ICC=0.91-0.90), indicating that the test-retest reliability of the current version is higher (29).

The construct validity of the TrPIKQ and subscales was examined by correlation analysis with the IQ scores. In the original study, the construct validity of each scale was examined using principal component analysis and comparison of total UI and POP scale scores with double-tailed t-test (23). The IQ was preferred for determining the construct validity, because the scale measures the level of UI knowledge. Since there is not a reliable and valid

Turkish scale that measures the level of knowledge about POP; and that, both UI and POP are concepts gathered under the roof of PFD, the construct validity of PIKQ-POP was also utilized from the IQ scores. The IQ scores were found to be highly correlated with TrPIKQ-UI and TrPIKQ total scores (r=0.634 and 0.596, respectively), and moderately correlated with TrPIKQ-POP scores (r=0.475). Çelenay et al. (2019) have also used the correlations with IQ in order to examine the construct validity, and found that there was a moderate correlation (rho=0.679) between the PIKQ-UI and IQ scores. In the light of these findings, it can be said that both Turkish translation versions are reliable and valid; and can be used to measure the level of knowledge about UI and POP (29).

In addition, the correlations of the scale scores with the scores obtained from GPFBQ, PFIQ-7 and PFDI-20 were examined. Although TrPIKQ and its subscales were correlated to some of these scales, the correlation coefficients were very low. This may be due to fact that the TrPIKQ (level of knowledge about UI and POP) and other relevant scales assess different concepts (impact on PFD symptoms, severity and quality of life) related to PFD, and the symptom/impact severity of the study sample is quite low.

Lack of another reliable and valid Turkish POP knowledge scale for the analysis of construct validity may be considered as a limitation for this study. In addition, the data are collected from a single geographical region, due to the possibility of cultural diversities, the generalisability of the findings for Turkish women living at different geographical regions may be questionable.

It was concluded that, as a reliable and valid scale, clinicians and researchers may use the TrPIKQ to assess the knowledge and awareness of Turkish women about UI and POP, as well as the effectiveness of different strategies towards improving these issues. Other psychometric properties of the scale such as responsiveness should be investigated in the future.

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O-13 Sexual Counseling for Couples in the Process of Urinary and Fecal Incontinence Treatment

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Abstract

Urinary incontinence is the involuntary leakage of urinary incontinence when the intra-bladder pressure exceeds the maximal urethral closure pressure. Fecal incontinence is the patient's unintentional gas and stool leakage. These pathological conditions are important diseases that are seen with age, high cost to society, increase the workload of health professionals and cause psychological problems in the patient. Women who have incontinence have low body image, feeling ashamed, fear of smell, fear of urine, feces or gas leakage during coitus, negative reactions of the partner and thinking that the attractiveness decreases cause sexual dysfunction and sexual dysfunction. Common sexual problems in incontinence include deterioration of body image, sexual reluctance, decreased lubrication, decreased sexual satisfaction, dyspareunia, and lack of orgasm. Sexual counseling is to help clients or couples with the aim of correcting the lack of information about sexuality, correcting false information and beliefs, and informing about sexual myths. The purpose of sexual counseling in general, to reduce the fear and anxiety of women in terms of sex, to increase the emotional and sexual response of the woman, to reduce the anger against the woman's spouse, to try new emotional and sexual techniques, to increase communication between spouses, to ensure the exclusion of distracting thoughts during sexual intercourse and the woman's orgasm to reduce their prejudices about being.

Key Words: Fecal incontinence, sexual counseling, urinary incontinence

Introduction

In the first standardization report of the International Continence Society (ICS), urinary incontinence (UI) is defined as an involuntary incontinence that causes social and hygienic problems and can be objectively demonstrated. In addition, in the latest updated report, it is mentioned as any incontinence. Although UI is not a life-threatening condition, it is a medical and social problem that causes many psychological problems ranging from embarrassment to

depression. In addition, daily home and work activities and sexual lives of people with incontinence problems are also negatively affected. Some of the types of incontinence defined by ICS are stress, reflex / urge, mixed (mixed), functional, postural, nocturnal enuresis, unconscious incontinence, and coital incontinence (1, 2).

Fecal incontinence is defined as the inability to control fecal or gas elimination due to loss or loss of control ability of the anal sphincter mechanism. Fecal incontinence may occur in all age groups due to neurogenic dysfunction, trauma / injuries, cerebrovascular events (3). Patients with fecal incontinence may be ashamed of this condition and think that they smell bad. As a result, social isolation begins in patients. It has been shown in the studies that depression and anxiety levels of patients with this problem are high. Passive, urge and fecal leakage are types of fecal incontinence (4, 5).

Sexuality is the social behavior of individuals or couples. Religious, social or social influences change the individual's response to sexuality. Masters and Johnson attributed the sexual response to two basic physiological changes: increased blood flow and increased muscle tension in certain parts of the body. In addition, when examining female orgasm, three key points have been mentioned as physiological, psychological and sociological for female orgasm (6). Sexuality is a multidimensional concept that requires physical and emotional participation. Physiological and psychological health, alcohol and drug use, family relations, past abuse stories and other traumatic events experienced by the person are effective on sexual health. Sexuality and sexuality should not be limited to the genital system.The genital system constitutes most of the sexuality, but since it does not address the human body as a whole, it is limited only to reproduction. Focusing on the genital area during sexuality makes the skin, the largest erogenous area in the human body, be thrown into the background. In this context, the clients and their partners should be encouraged to identify the erogenous regions in their bodies (7, 8).

Urinary and fecal incontinence, decreased self-esteem, decreased attractiveness, urinary, fecal or gas leakage during coitus, embarrassment, odor cause sexual problems in women. In addition, anxiety and depression experienced by incontinence individuals also affect their sexual life negatively. Studies have shown sexual dysfunction in 25-50% of women with incontinence complaints (9, 10, 11). Common sexual problems in incontinence include deterioration in body image, sexual reluctance, decreased lubrication, decreased sexual satisfaction, dyspareunia, and lack of orgasm (9, 10).

Sexual counseling is called to help clients or couples with the aim of informing about sexual myths, correcting the lack of information about sexuality, correcting false information and beliefs. Sexual health requires a positive and respectful approach to sexuality as well as having pleasant and safe sexual experiences that do not involve coercion, discrimination and violence. On the other hand, sexual dysfunction is characterized by disorders in the sexual response cycle and occurs due to mental and physical changes (12, 13). The aim of sexual counseling; to reduce sexual anxiety, to increase the emotional and sexual responses of the couple, to reduce anger towards the partner, to obtain new emotional and sexual techniques, to increase communication between spouses, to ensure the exclusion of non-erotic thoughts during sexual intercourse,to observe and listen to the problem, to reduce prejudices that there should be ejaculation or orgasm. For this reason, sexual counseling is an important step that can be used to solve the sexual problems of women, liberates their sexual lives and increases the quality of life of women (14).

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ASSESMENT OF INCIDENCE AND RISK FACTORS FOR FEMALE SEXUAL DYSFUNCTION IN TURKISH WOMAN, A PILOT STUDY.

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Hypothesis / aims of study

Female sexual dysfunction (FSD) is a common problem among woman and it diminishes quality of life. FSD takes different forms, including lack of sexual desire, impaired arousal, inability to achieve orgasm, or pain with sexual activity. It is estimated that 40 percent of women were affected worldwide and it was shown that FSD prevalence was 48.3 percent in Turkish population [1]. Etiology of FSD remains unclear yet it is shown to be multifactorial in studies [2] . Age, menopause status, psychiatric diseases, childbirth, pelvic organ prolapse, incontinence and chronic illness are related to female sexual dysfunction[3]. Pelvic Floor Distress Inventory (PFDI-20) questionnaire evaluates symptoms related to the pelvic floor disorders (PFD) and FSFI questionnaire evaluates symptoms related to sexual function. Although PFD is a common problem in population, a few amount patients state their symptoms in clinic practice. We assessed the prevalence and risk factors for FSD using the Turkish version of the Female Sexual Function Index (FSFI) in Turkish women admitted to gynecology outpatient clinic in a tertiary care center.

Study design, materials and methods

A cross-sectional study was conducted gynecology outpatient clinic in a tertiary care center. Women with prior pelvic surgery, surgical or medical treatment for urinary incontinence or grade-2 or more prolapse according to the Baden-Walker half way system were excluded from the study. Ethical approval was taken from the institutional ethics committee (19-1292-18) . Informed consent was taken from all patients. All patients completed the FSFI for the evaluation of FSD. Demographic characteristics and risk factors were assessed in all women from hospital database and via Pelvic Floor Distress Inventory (PFDI-20) scores. Findings were compared between women with and without FSD. PFDI-20 questionnaire was used to address any pelvic floor disorders which could be underestimated unless it is questioned. All statistical analyses were done using SPSS, version 24 (SPSS, Chicago, Illinois). Continuous variables were compared with Student's t-test or Mann–Whitney's U test according to the distribution of each variable. Categorical variables were compared with chi-squared test. Values are presented as the mean±SD. A p values of <0.05 was considered statistically significant. On the basis of previous studies, when a power analysis was performed with 80% power and an alpha value of 0.05, patient number for each study arm should be 160 for the confirmation of statistical significance but in this report we are sharing our preliminary results.

Results

According to the FSFI score 74.4 % of women reported FSD (FSFI score less than 26.55). The mean age of the patients was 50.62± 9.52. 44 patients (44.8%) were unemployed and the rest of them were working or retired. Patients were divided into two groups, group 1 consisted of patients with FSD and group 2 were patients without FSD. Socio-demographic features of the study population were shown in Table 1. Age (p=0.574), educational status (p=0.377) , marital status (p=0.889), income status (p=0.851), PFDI-20 (p=0.702), POPDI-6 (p=0.523), CRADI-8 (p=0.738) and UDI-6 (p=0.318) scores were not significantly different between groups, however multiparity was related to significantly lower FSFI-scores (p=0.041) (Table 2).

Interpretation of results

Our FSD prevalence were higher than previous studies [1] and it may be explained by conduction in an outpatient gynecology clinic of tertiary care center. Study population needs to be increased to identify etiology precisely and this data is our preliminary findings for this study. So far parity seems to affect sexual dysfunction negatively in a pre- and perimenopausal group of patients who have low-risk for FSD. Pregnancy can change dynamics of pelvic floor by not only causing pelvic organ prolapse also by changing muscular tone, loosening connective tissue of the ligaments and cartilage. Exact mechanism can be studied more with animal models. We did not find any association between pelvic organ prolapse and female sexual dysfunction.

Concluding message

Multiparity negatively effects female sexual function.

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Table 1: Baseline characteristics of patients.

Patient characteristics (n= 98)	**Mean±SD**	**(min- max)**
Age (years)	50.62± 9.52	29-60
Parity	1.9 ±1.27	0-6
Employment	**n**	**%**

Unemployed	44	(44.8)
Working	51	(52.04)
Retired	3	(3.06)
Income status		
Low income	42	(42.8)
Lower-middle	39	(38.77)
Upper-middle	17	(17.34)
Marital status		
Married	69	(70.4)
Divorced	24	(24.4)
Single	5	(5.2)
Education status		
No education	7	(7.2)
Primary school	38	(38.8)
Middle school	19	(19.4)
High school	17	(17.3)
University	17	(17.3)
Questionnaire results	**Mean±SD**	**(min-max)**
PFDI-20	130.91 ±40.40	(53.13 -208.33)

POPDI-6	38.41±22.03	(0-75)
CRADI-8	29.80±17.25	(0-78.13)
UDI-6	52.70±19.45	(16.67-100)
FSFI		
Desire	2.47±1.01	(1.20-4.20)
Arousal	2.180±1.25	(0-4.20)
Lubrication	2.54±2.03	(0-4.8)
Orgasm	2.41±1.77	(0-5.20)
Satisfaction	0.97+0.6	(0.27-2)
Pain	2.83±1.75	(0.4-5.6)

Table 2: Comparison of socio-demographic features and PFDI-20 scores between patients with FSD and without FSD

	FSD +	FSD -	
Age (Mean±SD)	49.7± 9.7	47.9± 7.8	0.574
Marital status			
Married (n,%)	55, 73.3	20, 26.7	0.889
Divorced	14, 22.2	4, 77.8	
Single	1, 20	4,80	
Income status(n,%)			
Low	31, 77.5	9, 22.5	

Low-middle	29, 72.5	11, 27.5	
High	13, 72.2	5, 27.8	0.851
Education status(n,%)			
No education	5, 62.5	3, 37.5	
Primary school	31, 83.8	6, 16.2	
Middle school	14, 77.8	4, 22.2	0.377
High school	12, 70.6	5, 29.4	
University	11, 61.1	7, 38.9	
Parity (n,%)			
Nulliparity	20, 62.5	12, 37.5	**0.041**
Multiparity	52, 76.7	14, 23.3	
PFDI-20 (0-80) (Mean±SD)	143.21±50.29	138.51±59.95	0.702
POPDI-6 (0-24)	39.49±24.52	43.16±25.28	0.523
CRADI-8 (0-32)	29.19±19.47	27.75±15.52	0.738
UDI-6 (0-24)	74.52±29.03	67.60±31.88	0.318

PFDI-20: pelvic floor disorder inventory, POPDI-6: Pelvic Organ Prolapse Distress Inventory 6, CRADI-8: colorectal anal distress inventory 8, UDI-6: urogenital distress inventory 6,FSFI: female sexual function index, FSD: female sexual function disorder Independent T test and Chi- Square analyses were used to evaluate the correlation. P values <0.05 were considered significant.

CORRELATION OF PELVIC FLOOR MUSCLE STRENGTH WITH CLINICAL FINDINGS

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Hypothesis/Aim of study

In this study we aimed to investigate correlation of pelvic floor muscle (PFM) strength with clinical findings in patients with pelvic floor dysfunction (PFD).

Materials/Methods

633 patients with PFD were referred to our tertiary care urogynecology unit. PFM strength was assessed by digital palpation using Modified Oxford scale. Each patient was also evaluated with gynecological examination, especially for pelvic organ prolapse (POP). Disease-specific questionnaires (POPDI-20, IIQ-7, AAM-V8, PISQ-12) were used to evaluate effect of PFD on patient's daily life.

Results

Mean age of population was 50.78 (21-88) with mean BMI (29.84). 86% percent of patients were delivered vaginally with fetal weights ranging between 1450 and 5900 grams. Mean values for gravidity and parity were 4.04 and 2.74 exactly. Most of the studied women (37.3%) had a muscular strength of three on modified Oxford Scale. PFM strength was negatively correlated with parity ($p=0.00$, $r=-0.161$) and age ($p=0.00$, $r=-0.171$). When pelvic floor muscles weaken anterior, apical and posterior compartment prolapse severity increases. In patients with a muscular strength of 0 on modified Oxford scale severe anterior and apical prolapse (stage III or IV) rate exceeds 50% (9/13 and 7/13).

Conclusion

Increasing age and parity negatively affects PFM strength. Irrespective from mode of delivery pregnancy has negative effect on pelvic floor muscle structure. In patients with weak PFM strength severe pelvic organ prolapse is seen commonly, exercising PFM can be protective against POP.

Urogynecology Problems in Menapausal Problems

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Abstract

Menopause is a normal, natural event, the term simply refers to the last menstrual period which is defined by not having had a period in twelve consecutive months. With the development of health services, the increase in diagnostic and treatment possibilities has prolonged human life span. The innate life expectancy of women in Turkey increased to 79.4 years. In this case, a woman will spend one third of her life in the menopausal period on average and even more in the future.

In this long period of life, due to the fluctuation in the hormone levels, women during the menopausal transition experience vasomotor, urogenital, somatic and psychological symptoms, as well as sexual dysfunction. Especially, significant growing research implicates menopausal estrogen levels in the pathogenesis of the common pelvic floor disorders. In the menopausal period, a highly advanced relationship is observed between lower urinary tract symptoms as a result of estrogen deficiency. More common urogenital symptoms women might experience during menopausal transition are increased urine frequency, incontinence of urine, recurrent urinary tract infections (UTI), genitourinary syndromes, vaginal dryness, loss of libido, uterine prolapse. Therefore, these symptoms experienced during the menopause period and the complaints associated with these symptoms are managed well, the well-being of the physical, mental and social aspects of the woman will be improved positively. Nurses, an important member of the healthcare team, have an active role in determining the risk factors, planning care and applying behavioral treatments of urinary problems, Identification of UI in the early period and addressing the problem by providing adequate guidance on this issue, improving women's health will make a significant contribution. Thus,

Keywords: urogenital problems , urogynecology, nursing.

INTRODUCTON

During menopause, women experience many physical changes caused by a decrease in estrogen and other hormones and the effects of aging . In addition to vasomotor symptoms, sleep disturbances, and mood alterations, menopausal women experience an increase in vulvovaginal

symptoms (Portman and Gass, 2014). According to literature, at least 60% of ladies suffer from mild symptoms and 20% suffer severe symptoms and 20% from no symptoms (Tumbull 2010). Recent literature show the prevalence of urogenital problems among postmenopausal women were loss of libido (34.6%), increased urine frequency (30.4%), vaginal dryness (26.5%), incontinence of urine (21.5%), recurrent urinary tract infections (7.7%) and uterine prolapse (4.6%) (Nath et al., 2015). In study conducted in Turkey, 68.8% of the populations reported UI, 18.2% of the women suffered from vaginal discharge and pruritus, while 23% experienced vaginal dryness; 51.2% of the women were sexually active. However, 83.6% of this group of women reported a decrease in sexual desire and frequency of intercourse (Oskay et al., 2005).

Genitourinary Symptoms

In menopausal period, the estrogen loss produces a vulvovaginal dysfunction generating a decrease in vaginal lactobacilli and a pH increase leading to the appearance of genitourinary symptoms, as vaginal dryness, pruritus, dyspareunia, and urinary symptoms. Approximately 50% of postmenopausal patients have urogenital atrophy related symptoms (Palacios et al.,, 2015). The terms vulvovaginal atrophy and atrophic vaginitis have been found to be insufficient to define menopausal symptoms associated with changes in the vulva, vagina, and lower urinary tract due to estrogen deficiency; thus, the term GSM has been developed for a more accurate and inclusive terminology. In 2014, the International Society for the Study of Women's Sexual Health and the North American Menopause Society agreed that "genitourinary syndrome of menopause" is a more inclusive and accurate term to describe the conglomeration of external genital, urological, and sexual sequelae caused by hypoestrogenism during menopause (Gandhi et al.2016;Karakoç 2019; Aba et al., 2016).

The syndrome or its features manifest in some manner in approximately 15% of premenopausal women and 40-54% of postmenopausal women. The European REVIVE study showed that the most common VVA symptom was vaginal dryness (70%). VVA has a significant impact on the ability to be intimate (62%), to enjoy sexual intercourse (72%) and to feel sexual spontaneity (66%). This study confirmed that VVA symptoms are frequent in postmenopausal women and demonstrates a significant impact on quality of life and sexual life. However, the condition is still under-diagnosed and under-treated, with a high rate of dissatisfaction for actual available treatments in the four European countries surveyed. The discussion of symptoms with HCPs seems the most critical factor for diagnosis and treatment of VVA (Nappi et al., 2016).

Urinary incontinence

One common problem that affects postmenopausal women is incontinence. Urinary incontinence (UI) is defined by the International Continence Society (ICS) as involuntary loss of urine experienced during the bladder storage phase (D'ancona et al., 2019), is broadly divided into three main categories stress (SUI), urgency (UUI) and mix urinary incontinence. IU is more common females and overall around the 30-60% of women of suffering any IU with an increasing prevalence with age (Hamdy and Eradley, 2017, Troko et al., 2016). In a study from Turkey reported that the prevalence of UI in women during the premenopausal period was 9%, while it was 50% in menopausal women. The prevalence of UI was 29.6% in all women (Dinç and Özer, 2019). These results show that, urinary incontinence was an important health problem among women in the menopausal period in all around the world. The risk factors for UI are 50-64 years, BMI 30≥ kg/m2, diabetes mellitus, 4≥ number of vaginal deliveries, maternal or sibling had UI, constipation were found to be risk factors (Dinç and Özer, 2019). But still the pathophysiology behind menopause and development of urinary incontinence is not well understood. Several studies have tried to prove the benefit of hormone replacement therapy in incontinence and concluded that it does not seem to protect against urinary incontinence. The role of estrogen in the treatment of urinary incontinence is undergoing reassessment and authors suggested that, this should be discussed with women who go on hormone replacement therapy for menopausal symptoms particularly those who also have preexisting UI (Cody et al., 2012).

Pelvic Organ Prolapse

Many women suffer from pelvic organ prolapse, which is a downward descent of the vagina and/or uterus. It is more common after childbirth and after the menopause. Menopause causes decreasement of collagen in female's body which can cause weakening of pelvic floor that correlates positively to the incidence of POP . Depending on the definition of POP in regards to stage-specific cutoffs, the prevalence ranges from 25 to 97% of the population (Ismail et al., 2010, Rahmatyah et al., 2018).

The role of menopause on pelvic floor dysfunction is unclear. Nor menopausal status nor the length of hormone deficiency has been associated to the risk or severity of POP. Menopausal status showed a trend toward a positive association with primary POP, but in only 1 of the 3 studies was it a significant risk factor. Age has been found to be associated with higher pelvic floor symptoms and is independent of menopausal status In summary, menopausal status has not been established as an independent predictor of POP, despite multiple clinical studies (Chow, 2013, Vergeldt et al., 2015, Alperin et al., 2019;Manella et al., 2013).

Results

Substantial body of epidemiological literature suggests an association between menopause, PFD, UI and UTIs; however, the ability to separate this association from age and other comorbid conditions makes it difficult to draw definitive conclusions on the role of menopause alone in the development and/or progression of PFDs. GSM is a major problem at menopausal period. However, it is underdiagnosed and undertreated in Asia. As discussion of GSM with HCPs appears to be a factor influencing women's awareness and treatment status, a more active role by HCPs to facilitate early discussions on GSM and its treatment options is needed. The risk factors for urinary and vaginal symptoms should be assessed thoroughly in menopausal women to facilitate earlier treatment (Nappi et al., 2016, Alperin et al., 2019).

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