Physical Therapy Department for Obstetrics and Gynaecology and Its Surgery

Doctoral Degree

2020

Author	**:**	**Ahmed Saad Ahmed Abd-Allah Shaban.**
Title	**:**	**Effect of Virtual Reality on Primary Dysmenorrhea.**
Dept.	**:**	**Physical Therapy for Women's Health**
Supervisors	**1.**	**Hala Mohamed Hanafy Omara**
	2.	**Mohamed Ahmed Mohamed Awad**
	3.	**Mohamed Fawzy Mohamed Abo Elenin**
Degree	**:**	**Doctoral.**
Year	**:**	**2020.**
Abstract	**:**	

This study was conducted to determine the effect of virtual reality on primary dysmenorrhea. Forty girls with primary dysmenorrhea participated in this study. They were selected randomly from the Out-patient clinic of Om El-Masryeen General Hospital in Giza. Their ages were ranged from 17-23 years old. Their body mass index (BMI) didn't exceed 30 kg/m^2. All girls were virgins and with regular menstrual cycle. Girls with cardio-respiratory disease, body mass index (BMI) > 30 Kgm/m^2, psychological problems, secondary dysmenorrhea, irregular menstrual cycle, pelvic inflammatory diseases and polycystic ovaries syndrome are excluded from the study. Design of this study was two groups pre and post experimental design. They were divided randomly into two groups equal in numbers: Group A (Study group); they were treated by medical treatment (NSAIDs) and virtual reality head set for 15 minutes 3 times / day during the first 3 days of menstruation and repeated for 3 consecutive cycles. Group B (Control group); they were treated by medical treatment only (NSAIDs) for 3 consecutive cycles. Pain intensity was assessed by numeric pain rating scale and plasma cortisol level before and after treatment. Dysmenorrheal symptoms were assessed by using menstrual symptoms questionnaire. Results of this study showed that: ANCOVA test revealed that there was a statistical significant decrease in group A when compared with its corresponding level of serum cortisol AM and PM in group B. Median difference of menstrual symptoms questionnaire was calculated to get the actual effect of programs applied in each group. There was a statistical significant difference between group A and B which was in favor of group A (more decrease). Repeated measures ANOVA test showed that there was a statistical significant difference in numeric pain rating scale between the two groups across the three menses times (1st, 2nd and 3rd menses). So, it could be concluded that virtual reality is a simple, cost free and non-pharmacological method in reducing symptoms of primary dysmenorrhea and can be used as adjunct method in treatment of primary dysmenorrhea.

Key words	**1.**	**Virtual reality**
	2.	**Primary dysmenorrhea.**
Classification number	**:**	**000.000.**
Pagination	**:**	**158 p.**
Arabic Title Page	**:**	**تأثير محاكاة الواقع الافتراضي على مرض عسر الطمث الأولي.**
Library register number	**:**	**7225-7226.**

Author	**:**	**Ayman Mohamed Abo Elmila.**
Title	**:**	**Effect of cryolipolysis on insulin resistance in obese postmenopausal women.**
Dept.	**:**	**Physical Therapy for Women's Health**
Supervisors	**1.**	**Hala Mohamed Hanafy Omara**
	2.	**Mohamed Ahmed Mohamed Awad**
	3.	**Kareem Essam Eldin Hadad**
Degree	**:**	**Doctoral.**
Year	**:**	**2020.**
Abstract	**:**	

This study was designed to investigate the effect of cryolipolysis on insulin resistance in obese postmenopausal women. Forty obese postmenopausal women with insulin resistance participated in this study. They were selected randomly from the outpatient clinic of Kasre El Ainy University Hospital. Their ages ranged from 50 to 60 years old and their body mass index was >30 kg/m². They were diagnosed as having insulin resistance; if they had one or more of the signs of insulin resistance as fatigue, brain fogginess, inability to focus, weight gain, difficulty losing weight, fat storage in and around abdominal organ, elevated blood triglyceride levels, sleepiness especially after meals, acanthosis nigricans and HOMA-IR (measuring insulin resistance equation) was more than (1). Women with body mass index (BMI) < 30 kg/m^2, cardio-respiratory diseases, diabetes mellitus, malignancy, severe hemorrhage, acute viral disease and mental disorders, smokers and life threatening disorders as renal failure were excluded from the study. They were divided into two groups equal in numbers; group A (Control group) consisted of 20 women and treated by moderate restricted diet (low carbohydrate, moderate protein and moderate fat) for 5 months, group B (Study group) consisted of 20 women treated by the same moderate restricted diet in as group A and cryolipolysis sessions on abdominal obesity (1 session / 3week, for 5 months). BMI was assessed by using standard weight-height scale, waist circumference was assessed by tape measurement, skin fold thickness was assessed by skin fold caliper, insulin resistance was assessed by Homeostatic Model Assessment (HOMA-IR) for all women in both groups (A, B) before and after treatment. Results of this study found that, there was a statistically significant decrease in BMI, waist circumference, skin fold thickness, fasting glucose, fasting insulin and insulin resistance at post treatment in compare to pre-treatment (P-value < 0. 001*) in both groups A and B. Between groups, there was no statistical significant difference in BMI, waist circumference, skin fold thickness, fasting glucose, fasting insulin and insulin resistance pretreatment, but there was a statistically significant difference in BMI, waist circumference, skin fold thickness, fasting glucose, fasting insulin and insulin resistance post treatment (more decrease in group B). Accordingly, it can be concluded that cryolipolysis is effective in reducing insulin resistance in obese postmenopausal women.

Key words	**1.**	**Cryolipolysis**
	2.	**Insulin resistance**
	3.	**Obese**
	4.	**Menopause**
	5.	**women in obese postmenopausal.**
Classification number	**:**	**000.000.**
Pagination	**:**	**98 p.**
Arabic Title Page	**:**	**تأثير إذابة الدهون بالتبريد على مقاومة الأنسولين لدى السيدات البدينات بعد إنقطاع الطمث.**
Library register number	**:**	**7165-7166.**

Author	**:**	**Doaa Saeed Mohamed El-Sayed.**
Title	**:**	**Mechanical posture changes in adolescent females at public schools compared to international schools.**
Dept.	**:**	**Physical Therapy for Women's Health**
Supervisors	**1.**	**Fahima Metwally Okeel**
	2.	**Amel Mohamed Yousef**
	3.	**Hamada Ahmed Hamada**
Degree	**:**	**Doctoral.**
Year	**:**	**2020.**
Abstract	**:**	

Background: Postural changes are disorders that affect adolescent females, whether in public schools and/or international schools which may lead to chronic muscle soreness and musculoskeletal pain. Purpose of the study: it was aimed to determine mechanical posture changes in adolescent females at public schools compared to international schools. Methods: This was conducted on two hundreds adolescent females, age from(13-17) years, with BMI>20 and <30kg/m2, from AL-Fouad international schools, Qaitbay international school and public schools (High school for girls, Preparatory school in Al-Quba in Minya al-Qamh Alsharquih and Martyr Walid Al-Nimr preparatory school in Al-Talaen). They were assigned into two equal groups; Group (A) represented public schools and Group (B) represented international schools. Posture changes were examined by posture screen mobile app (PSM) and a photographic method (kinovea) to assess mechanical changes from two views (lateral and frontal views from standing position). Self-reported questionnaires were also used in form of Back Posture Evaluation Instrument (Back PEI) to identify the presence of back pain and evaluates posture, behavioral habits, socioeconomic and hereditary) and Depression Anxiety Stress Scales-21(DASS-21) to provide measure of anxiety, depression and stress signals. Results: Statistical analysis of posture changes by PSM indicates that from frontal view there were significant changes between both groups in favour to group A compared to group B. Statistical analysis indicated that there's significant difference between both groups (A&B) at back pain and behavioral habits, hereditary factors, socioeconomic status, stress and anxiety more at group A than group B. Conclusion: Girls at public schools had high prevalence of frontal posture changes, back pain, stress and anxiety due to bad behavioral habits and socioeconomic factors.

Key words	**1.**	**Posture.**
	2.	**International school.**
	3.	**Adolescent.**
	4.	**Public schools.**
	5.	**Females.**
	6.	**Students.**
Classification number	**:**	**000.000.**
Pagination	**:**	**151 p.**
Arabic Title Page	**:**	**تغييرات الوضع الميكانيكي في مرحلة المراهقةعند الاناث في المدارس الحكومية مقارنة بالمدارس الدولية.**
Library register number	**:**	**7175-7176.**

Author	**:**	**Eman Jamal Hassan Mohamed.**
Title	**:**	**Effect of ultraviolet on vitamin D activation and balance in postmenopausal women.**
Dept.	**:**	**Physical Therapy for Women's Health**
Supervisors	**1.**	**Hala Mohamed Hanafy Omara**
	2.	**Hossam Eldin Hussien Kamel Salem**
	3.	**Mohamed Ahmed Mohamed Awad**
Degree	**:**	**Doctoral.**
Year	**:**	**2020.**
Abstract	**:**	

This study was conducted to determine the effect of ultraviolet on vitamin D activation and balance in postmenopausal woman. Forty postmenopausal women participated in this study. They complained from vitamin D deficiency (diagnosed by physician). They were selected from Sayed Galal University Hospital in Cairo, Al Azhar University. Their ages ranged from 50 to 60 years old. They were postmenopause for at least one year. Women with previous surgeries at their back and/or lower limbs, mental, neurological, vestibular, cardiovascular disorders, metabolic disease or musculoskeletal disorder with lower limb deformity were excluded from the study. They were divided randomly into two groups equal in number; Group (A) received ultraviolet 12 sessions once a week for 3 months, Group (B) served as control group. Vitamin D was evaluated by the blood analysis and balance was evaluated by Biodex balance system before and after treatment for both groups (A and B). Results showed that there was a statistically significant increase in vitamin D level and statistically significant decrease in anterior-posterior stability index, medial-lateral stability index and overall stability index in group A post treatment ($P<0.05$) with no significant difference post treatment in group B. The results also showed that there was no significance difference between both groups A & B pretreatment in vitamin D level, anterior-posterior stability index, medial-lateral stability index and overall stability index. But post treatment there was significant difference between both groups A & B in vitamin D level (more increase in group A), anterior-posterior stability index, medial-lateral stability index and overall stability index (more decrease in group A). Accordingly, it could be concluded that the ultraviolet radiation is effective, easy to apply, simple and successful method in improving balance and vitamin D concentration in postmenopausal women.

Key words	**1.**	**Ultraviolet.**
	2.	**Post menopause.**
	3.	**Vitamin D.**
	4.	**Balance.**
	5.	**Women in postmenopausal.**
Classification number	**:**	**000.000.**
Pagination	**:**	**121 p.**
Arabic Title Page	**:**	**تأثير الأشعة فوق البنفسجية علي تنشيط فيتامين (د) والاتزان لدى السيدات بعد انقطاع الطمث.**
Library register number	**:**	**7109-7110.**

Author	**:**	**Fatma Omar Hasan Rohoma.**
Title	**:**	**Biomechanical assessment of spinal posture in girls with primary dysmenorrhea.**
Dept.	**:**	**Physical Therapy for Women's Health**
Supervisors	**1.**	**Amel Mohamed Yousef**
	2.	**Ahmed Mohamed El Halwagy**
	3.	**Hamada Ahmed Hamada**
Degree	**:**	**Doctoral.**
Year	**:**	**2020.**
Abstract	**:**	

Background: Primary dysmenorrhea is the most common gynecological problem in menstruating women and the prevalence rate is up to 90%. It has many adverse effects economically, socially, physically and psychologically. Purpose: It was aimed to explore the impact of spinal posture, pelvic position and spinal range of motion on the degree of severity of primary dysmenorrhea. Methods: Eighty-three girls participated in this study; they were assigned to three groups using Menstrual Distress Questionnaire (MDQ). group A; girls with mild dysmenorrhea <50 in MDQ (n=28), group B; girls with moderate dysmenorrhea 50 to 70 in MDQ (n=22) and group C; girls with severe dysmenorrhea > 70 in MDQ (n=33). Spinopelvic alignment (kyphotic angle, lordotic angle, surface rotation, lateral deviation, pelvic tilt and pelvic torsion) was evaluated by Raster-stereography Formetric 3 D analysis. Spinal range of motion (lumbar flexion and lumbar extension) was measured by modified modified schober test using tape measurement. Result: Statistical analysis revealed that there was no significant difference (p>0.05) in all spinopelvic parameters between the three degrees of primary dysmenorrhea (mild, moderate and severe). Also, there was no significant difference (p>0.05) in lateral deviation either between mild dysmenorrhea and moderate dysmenorrhea or between moderate dysmenorrhea and severe dysmenorrhea. But, there was significant difference (p<0.05) in lateral deviation only between mild dysmenorrhea and severe dysmenorrhea. Conclusion: There is impact of lateral deviation on degree of severity of primary dysmenorrhea but there is no impact of other spinal posture parameters, pelvic position and spinal range of motion on the degree of severity of primary dysmenorrhea.

Key words	**1.**	**Primary dysmenorrhea.**
	2.	**Pelvic position.**
	3.	**spinal range of motion**
	4.	**Biomechanical assessment.**
	5.	**Spinal posture.**
	6.	**girls with primary dysmenorrhea.**
Classification number	**:**	**000.000.**
Pagination	**:**	**110 p.**
Arabic Title Page	**:**	**التقييم الميكانيكى لوضع العمود الفقرى لدى الفتيات اللاتى تعانين من عسر الطمث الأولى.**
Library register number	**:**	**7199-7200.**

Author	**:**	**Ghada Said Mohamed El Sayed Mousa.**
Title	**:**	**Effect Of Low Level Laser On Pelvic Floor Muscles And Fascia In Cases Of Stress Urinary Incontinence.**
Dept.	**:**	**Physical Therapy for Women's Health**
Supervisors	**1.**	**Amel Mohamed Yousef**
	2.	**Hanan El Sayed El Mekawy**
	3.	**Rania Farouk El-Sayed**
Degree	**:**	**Doctoral.**
Year	**:**	**2020.**
Abstract	**:**	

The purpose of this study was conducted to determine the influence of low level laser on pelvic floor muscles and fascia in cases of stress urinary incontinence (SUI). This Randomized controlled trial study was carried out on 30 women, their age ranged from (40-55) years old, and they were diagnosed clinically as having SUI by Urogynecologist and by MRI. They were randomly selected and divided into two equal groups (A and B). The study group (A) received low level laser for 15 minutes and pelvic floor muscles exercises program for 30 minutes two sessions per week for twelve weeks, while the control group (B) received only pelvic floor muscles exercises program for 30 minutes two sessions per week for twelve weeks. Results: Statistical analysis showed statistically improvement in pelvic floor muscles strength ($p<0.001$) measured by perineometer, Modified Oxford Grading scale and SUI questionnaire in favor of group (A) compared to group (B). MRI reported a significant improvement in dynamic assessment in levator plate angle, iliococcygeal angle, anorectal angle, width and height of levator hiatus in favor of group (A) compared to group (B) post treatment. So, it could be concluded that low level laser in addition to pelvic floor exercises has a great effect on improving efficacy of pelvic floor musculature and fascia, and decreasing frequency, amount and severity of urinary incontinence. So low level laser may be an effective intervention in treating stress urinary incontinence.

Key words	**1.**	**Stress Urinary Incontinence**
	2.	**Low Level Laser.**
	3.	**Perineometer**
	4.	**Pelvic Floor Muscle.**
	5.	**Fascia.**
	6.	**Pelvic Floor Muscles Exercices.**
	7.	**MRI,**
Classification number	**:**	**000.000.**
Pagination	**:**	**111 p.**
Arabic Title Page	**:**	**تأثير الليزر منخفض الشدة على عضلات قاع الحوض واللفافة الحوضية فى حالات السلس البولى الاجهادى.**
Library register number	**:**	**7251-7252.**

Author	**:**	**Hend Ahmed Saad Ata.**
Title	**:**	**Effect of Cryolipolysis versus quadri- polar radiofrequency on post natal abdominal skin laxity.**
Dept.	**:**	**Physical Therapy for Women's Health**
Supervisors	**1.**	**Hala Mohamed Hanafy Omara**
	2.	**Hossam Al Din Hussien**
Degree	**:**	**Doctoral.**
Year	**:**	**2020.**
Abstract	**:**	

This study was conducted to determine the effect of cryolipolysis versus quadri-polar radiofrequency on post natal abdominal skin laxity. Forty postnatal women complained of postnatal abdominal skin laxity participated in this study. All women were multiparous. They complained from laxity in their abdominal skin. They were chosen from El Kasr El Ainy University hospital in Cairo. Their ages ranged from 20 to 40 years old and their BMI was ranged from 25 to 40 kg / m^2. They were divided randomly into two groups equal in number, group (A) 20 post natal women were treated by cryolipolysis for 8 weeks (1session per/ week to abdominal area). While group (B) 20 post natal women were treated by non-invasive quadri-polar radiofrequency for 8 weeks (1session per/ week to abdominal area). Skin laxity was evaluated by waist circumference, waist to hip ratio, two point discrimination and photographic scale. Before and after the program for both groups. The obtained results showed a statistically significant decrease in skin laxity in both groups, when both groups were compared together, a statistically significant decrease in skin laxity was found in group (B) than group (A). So that, it could be concluded that quadri-polar radiofrequency is more effective than cryolipolysis in treating postnatal abdominal skin laxity.

Key words	**1.**	**Postnatal**
	2.	**Skin laxity**
	3.	**Cryolipolysis**
	4.	**Radiofrequency**
Classification number	**:**	**000.000.**
Pagination	**:**	**118 p.**
Arabic Title Page	**:**	**تأثير العلاج بالتبريد مقابل العلاج بموجات الراديو رباعى الأقطاب على ترهل جلد البطن بعد الولادة.**
Library register number	**:**	**7031-7032.**

Author	**:**	**Kerolous Ishak Shehata Kelini.**
Title	**:**	**Effect of different heel heights on pelvic inclination and low back pain postnatally.**
Dept.	**:**	**Physical Therapy for Women's Health**
Supervisors	**1.**	**Hala Mohamed Hanafy Omara**
	2.	**Abdel Hamid Abdel Aziz Atta Allah**
	3.	**Mohamed Ahmed Mohamed Awad**
Degree	**:**	**Doctoral.**
Year	**:**	**2020.**
Abstract	**:**	

This study was conducted to determine the effect of different heel heights on pelvic inclination and low back pain postnatally. Forty postnatal women complained of low back pain participated in this study. They were selected randomly from physical therapy department in Al Zahraa University Hospital in Cairo, Al Azhar University. This study was conducted from January 2019 to June 2019. All women complained from low back pain postnatal. They were one month post partum. Their ages ranged from 25 to 32 years old. Their body mass index was not exceeding 35 kg/m^2. They did not receive any medical treatment during the research period. Women with musculoskeletal disorders as disc prolapse, spondylosis, lumbar canal stenosis and spondylysthesis, history of any medication affects back pain or pelvic pain, history of any back trauma, history of any surgery in the back region or the lower extremities and body mass index exceeding 35 kg/m^2 are excluded from the study. They were divided randomly into two groups equal in number, group A: women wore shoes of 3 cm heel height for three months and performing daily living activities, work stations and outdoor market visiting while group B: women wore shoes of 7 cm heel height for three months and performing daily living activities, work stations and outdoor market visiting. Visual analogue scale (VAS) was used to measure pain intensity, Oswestry Disability Questionnaire was used to assess functional disability and Palpation Meter was used to measure pelvic inclination angle for both groups (A&B) before and after wearing shoes of different heel heights. Results of this study found that, within groups there was a statistically highly significant increase ($p < 0.001$) in low back pain intensity, functional disability and pelvic inclination angle in both groups (A&B) after wearing different heel height. Between groups the obtained results showed that there was no significant difference between both groups A and B in low back pain intensity, functional disability and pelvic inclination angle pre wearing heel height. But post wearing heel height, there was highly significant difference between both groups A and B in low back pain intensity, functional disability and pelvic inclination angle (more increase in group B). Accordingly, it is most important for women to change their life style especially postnatal and wearing low heel shoes less than 3 cm to decrease low back pain intensity, functional disability and pelvic inclination angle.

Key words	**1.**	**Heel heights**
	2.	**Pelvic inclination**
	3.	**Low back pain**
	4.	**Postnatally**
Classification number	**:**	**000.000.**
Pagination	**:**	**103 p.**
Arabic Title Page	**:**	**تأثير الارتفاعات المختلفة لكعب الحذاءعلى درجة ميل الحوض و آلام أسفل الظهر بعد الولادة.**
Library register number	**:**	**7007-7008.**

Author	**:**	**Mahitab Mohammed Yosri Ibrahim.**
Title	**:**	**Effect of different squatting exercises on primary dysmenorrhea.**
Dept.	**:**	**Physical Therapy for Women's Health**
Supervisors	**1.**	**Amel Mohamed Youssef**
	2.	**Marwa Abd El Rahman Mohammed**
	3.	**Hamada Ahmed Hamada**
	4.	**Hossam El-din Hussein Kamel**
Degree	**:**	**Doctoral.**
Year	**:**	**2020.**
Abstract	**:**	

Background: Primary dysmenorrhea is considered as one of the most common complaints among adolescent females that involves a broad spectrum of both physical and emotional manifestations. Purpose of the study: Determine the effect of different squatting exercises on menstrual aspects, pelvic inclination angle and circulation in females with primary dysmenorrhea. Participants: Eighty femalesselected among physical therapy students at Cairo University were assigned into four equal groups. Their age ranged from (19-25) years and body mass index (BMI) ranged from 19-29 kg/m^2. They performed 20 minutes of four yoga positions (cobra, cow-cat, fish and legs up the wall) for 6 days/ week for 2 consecutive menstrual cycles in group (A), beside 30 minutes, 3 times/ week of; modified wall squat in group (B), sumo squat in group (C) and deep squat in group (D). Outcome measures: including; menstrual pain intensity, menstrual distress and pelvic inclination angle were evaluated at baseline in the first day of menstruation and at the first day of the next two menstrual cycles after intervention, while assessment of resistivity index (RI) & pulsatility index (PI) was done at baseline in the first day of menstruation and at the first day of second menstrual cycle after the intervention. Results: Statistical analysis showed a significant decrease ($p< 0.05$) in pain intensity, a significant difference ($p< 0.05$) in pain subscale scores, a significant difference ($p< 0.05$) in water retention subscale scores and a significant difference ($p< 0.05$) in menstrual distress questionnaire total scores, in favor of groups (B & C) than group (A) and in favor of group (C) than group (D), in favor of the groups (B, C & D) than group (A), in favor of group (D) than group (A), and in favor of both groups (C &D) than group (A) respectively. While, there were a significant difference in pelvic inclination angle and a significant improvement in circulatory indices in all groups, without statistically significant differences among groups. Conclusion: Adding squatting exercises to yoga is more effective than yoga alone in reducing menstrual pain intensity and menstrual distress, with no difference between various squatting exercises.

Key words	**1.**	**Primary Dysmenorrhea.**
	2.	**Squatting Exercises.**
	3.	**Yoga Therapy.**
	4.	**Pelvic Inclination.**
Classification number	**:**	**000.000.**
Pagination	**:**	**135 p.**
Arabic Title Page	**:**	**تأثير تمارين القرفصاء المختلفة علي آلام الطمث الأولية.**
Library register number	**:**	**7131-7132.**

Author	**:**	**Malak Adel Abd El Azim El Mahdy.**
Title	**:**	**Effect of Relaxation Training on Stress Management in Infertile Women Undergoing Intracytoplasmic Sperm Injection.**
Dept.	**:**	**Physical Therapy for Women's Health**
Supervisors	**1.**	**Hala Mohamed Hanafy Omara.**
	2.	**Amr Hazim Abbassy and Dr.**
	3.	**Mohamed Ahmed Mohamed Awad.**
Degree	**:**	**Doctoral.**
Year	**:**	**2020.**
Abstract	**:**	

Purpose: This study was conducted to determine the effect of relaxation techniques on stress on infertile women undergoing Intracytoplasmic Sperm Injection. Subjects: Forty primary infertile women participated in this study. They were recruited randomly from outpatient clinic of the department of Obstetrics and Gynecology of the National Research Centre in Giza. Their ages were ranged from 25 to 35 years old. Their body mass index was from 20 to 28 kg/m². They were selected two months before Intracytoplasmic sperm injection intervention. It was the first time for all of them to undergo the Intracytoplasmic sperm injection procedure. Women with previous treatment using In vitro fertilization and/or Intracytoplasmic sperm injection methods, cases of Pre-implantation Genetic Diagnosis, history of psychiatric condition or using drugs or mental medicine, unplanned change of treatment type, e.g. from insemination to In vitro fertilization due to too many follicles, anemia, diabetes mellitus, thyroid dysfunctions were excluded from the study. Design: Design of the study was pre and post experimental study. They were divided randomly into two groups equal in number; Group A (Control group) consisted of 20 women and treated by ICSI without stress management. Group B (Study group) consisted of 20 women and treated by Intracytoplasmic sperm injection and relaxation exercises for stress management for 45-60 minutes, 2 times/ week for 8 weeks in addition to home program for two weeks and advice about controlling stressful conditions after embryo transfer. Evaluation: Newton's fertility stress questionnaire was completed in three stages; before Intracytoplasmic sperm injection by two months, pre-embryo transfer and pre-pregnancy test. For women who could not attend in the laboratory due to the far distance, the questionnaire was completed carefully through the phone with adequate time and the results of the pregnancy test also were confirmed through the phone. Results: Results of this study revealed that; within groups, Fertility problem inventory value at pre-embryo transfer and pre-pregnancy test were significantly increased in group A and significantly decreased in group B when compared with its corresponding value measured at pre-treatment. Between groups; pre-treatment, there was no statistical significant difference between Fertility problem inventory value of group A and group B. At pre-embryo transfer and pre-pregnancy test, there was a statistical significant decrease in Fertility problem inventory value of group B when compared with group A. Pregnancy test was positive in 8 cases (40%) in group A, while in group B it was 13 (65%). Conclusion: It can be concluded that relaxation training reduces stress and increase pregnancy rate in infertile women undergoing Intracytoplasmic sperm injection.

Key words	**1.**	**Relaxation Training.**
	2.	**Stress Management.**
	3.	**Infertile Women.**
	4.	**Intracytoplasmic Sperm Injection.w**
Classification number	**:**	**000.000.**
Pagination	**:**	**130 p.**
Arabic Title Page	**:**	**تأثير تدريبات الإسترخاء علي الإجهاد لدي النساء المصابات بالعقم اللاتي يخضعن لعمليات التلقيح المجهري.**
Library register number	**:**	**7227-7228.**

Author	**:**	**Manal Ahmed El-Shafei Mohamed.**
Title	**:**	**Impact of Different Shoe Heel Heights on Spinal Configuration During Different Phases of Menstrual Cycle.**
Dept.	**:**	**Physical Therapy for Women's Health**
Supervisors	**1.**	**Amel Mohamed Youssef**
	2.	**Hamada Ahmed Hamada**
	3.	**Mohamed Fawzy Abo Eleinin**
Degree	**:**	**Doctoral.**
Year	**:**	**2020.**
Abstract	**:**	

Background: High heeled shoes adversely affect spinal curvature and increase risk of back pain. It also disturbs balance and normal gait pattern. Purpose: To explore the short term impact of usage different shoe heel heights on spinal configuration during different phases of menstrual cycle. Methods: Seventy females participated in this study; they were assigned to one group, each female wear four sport shoes with different heel heights (0 cm, 2.5 cm, 4.5 cm, and 7 cm). Spinopelvic alignment was evaluated by Raster-stereography Formetric 3 D analysis during different menstrual phases (early follicular, ovulatory and mid- luteal phases). Result: Statistical analysis revealed that there was no significant difference (p>0.05) in lordotic angle, pelvic tilt, kyphotic angle, trunk inclination and pelvic inclination between phases of menstrual cycle at different sport shoes with different heel heights (0, cm, 2.5 cm, 4.5 cm and 7 cm). Also, there was no significant difference (p>0.05) in lordotic angle, pelvic tilt, kyphotic angle, trunk inclination and pelvic inclination among sport shoes with different heel heights at all phases of menstrual cycle (early follicular, ovulatory and mid luteal phases).The results of VAS and 7 point LS revealed that with increasing height of shoes heel, the shoes become more uncomfortable. Conclusion: There is no impact of short term usage of high heeled shoes on spinal configuration during different phases of menstrual cycle.

Key words	**1.**	**High heels**
	2.	**Spinal configuration**
	3.	**Menstrual phases**
	4.	**Shoe Heel Heights.**
Classification number	**:**	**000.000.**
Pagination	**:**	**120 p.**
Arabic Title Page	**:**	**تأثير الإرتفاعات المختلفة لكعب الحذاء علي شكل العمود الفقري أثناء المراحل المختلفة من الدورة الشهرية.**
Library register number	**:**	**6951-6952.**

Author	**:**	**Marwa abd El Haleem Aziz Mahmoud.**
Title	**:**	**Efficacy of muscle energy technique versus instrument-assisted soft tissue mobilization on postnatal low back pain.**
Dept.	**:**	**Physical Therapy for Women's Health**
Supervisors	**1.**	**Hala Mohamed Hanafy Emara**
	2.	**Hossam Eldin Hussien Kamel Salem**
	3.	**Mohamed Ahmed Mohamed Awad**
Degree	**:**	**Doctoral.**
Year	**:**	**2020.**
Abstract	**:**	

This study was conducted to compare the effect of muscle energy technique versus instrument assisted soft tissue mobilization on postnatal low back pain. Forty postnatal women participated in this study. They complained from low back pain (referred by physician). They were selected from Said Galal University Hospital in Cairo, Al Azhar University. Their ages ranged from 25 to 35 years old. Their body mass index was not exceeding 30 kg/m^2. They did not receive any analgesics medical treatment during the research period. All of them were delivered vaginaly delivery by six weeks. Patients with radiculopathy, previous low back surgery, spondylolis thesis and chronic low back pain were excluded from the study. They were divided randomly into two equal groups (A&B). Group A treated by Instrument assisted soft tissue mobilization two times/ week for six weeks. Group B treated by Muscle energy technique two times /week for six weeks. Visual analogue scale was used to measure pain intensity and Modified schober's test was used to assess lumbar range of motion for both groups A and B before and after treatment. Results of this study found that, within groups There was a statistically highly significant decrease (P<0.001) in visual analog scale and a statistically highly significant increase (P<0.001) in lumbar spine range of motion in both groups A and B post treatment. Between groups the obtained results showed that there was no statistical significant difference pretreatment, but post treatment there was a statistically highly significant difference in low back pain intensity (more decrease in group A) and lumbar spine range of motion (more increase in group A). Accordingly, it can be concluded that Instrument assisted soft tissue mobilization technique is more effective than muscle energy technique in reducing postnatal low back pain intensity and improving lumbar spine range of motion.

Key words	**1.**	**Muscle energy technique**
	2.	**Instrument assisted soft tissue mobilization**
	3.	**Low back pain.**
	4.	**Postnatal low back pain.**
	5.	**Postnatal period**
Classification number	**:**	**000.000.**
Pagination	**:**	**98 p.**
Arabic Title Page	**:**	**فعالية تقنية طاقة العضلات مقابل أداة تحريك الأنسجة الرخوة على آلام أسفل الظهر بعد الولادة.**
Library register number	**:**	**7041-7042.**

Author	**:**	**Mary Gorgous Shokry Geris.**
Title	**:**	**Effect of biofeedback and pelvic floor muscles training on genital prolapse.**
Dept.	**:**	**Physical Therapy for Women's Health**
Supervisors	**1.**	**Sohier Mahmoud Elkosery.**
Degree	**:**	**Doctoral.**
Year	**:**	**2020.**
Abstract	**:**	

This study was carried out in an attempt to determine the efficacy of biofeedback and pelvic floor muscles training on genital prolapse. Forty volunteers women suffering from mild to moderate degree of genital prolapse of any type either vaginal {anterior wall (cystocele) or posterior wall (rectocele)} and uterine or a combination as confirmed by their gynaecologist on vaginal examination. They were selected from out-patient clinic of gynecology of Kasr Ainy University Hospital. They were divided randomly into two groups equal in number: group (A) or control group who was received pelvic floor muscles exercises treatment program (for 20 minutes). Group (B) or study group who was received pelvic floor muscles exercises (20 minutes /session) in addition to biofeedback treatment program (20 minutes). Both groups were received pelvic floor muscles exercises program as a home routine with a prolapse lifestyle advices leaflet through the study period. Duration of treatment for the both groups (A & B) was 3 times per week for12 weeks. Assessment of the strength of pelvic floor muscles, the level of genital prolapse and the severity of the symptoms of genital prolapse, were measured to each woman before and after the end of the treatment program. The results revealed that there was a highly significant increase (P<0.001) of the strength of pelvic floor muscles, a highly significant decrease (P<0.001) of the level of the genital prolapse and a highly significant increase (P<0.001) of the improvement of the severity of the symptoms of genital prolapse in group (B) compared togroup (A). So that could be concluded that biofeedback and pelvic floor muscles training were effective methods for the treatment of genital prolapse.

Key words	**1.**	**Genital prolapse.**
	2.	**Pelvic floor muscles strength.**
	3.	**Biofeedback.**
	4.	**Pelvic floor muscles training.**
Classification number	**:**	**000.000.**
Pagination	**:**	**92 p.**
Arabic Title Page	**:**	**تأثير التغذية الرجعية و تدريب عضلات الحوض الرافعة على سقوط الأعضاء التناسلية.**
Library register number	**:**	**7161-7162.**

Author	**:**	**Mona Salah Nagieb.**
Title	**:**	**Effect of Interferential Current Augmented by Strengthening Exercise for Core Muscles on Low Back Pain after Delivery.**
Dept.	**:**	**Physical Therapy for Women's Health**
Supervisors	**1.**	**Magda Sayed Morsy**
	2.	**Samira El Malah**
Degree	**:**	**Doctoral.**
Year	**:**	**2020.**
Abstract	**:**	

This study was conducted to investigate the effect of interferential current augmented by strengthening exercises for core muscles on low back pain after delivery. Thirty women suffering from low back pain after delivery (for at least 3 months after delivery) were participated in this study. They were selected from Police Authority Hospital at Naser City. Their ages were ranged from (25-35) years old, and their body mass index (BMI) was not exceed 30 kg/m² and their number of parity was ranged from 2-4 children. The type of delivery was normal and caesarean section. All participants were divided randomly into two groups, equal in number as group (A&B). Group (A): This group was consisted of 15 women. Each woman in this group had received interferential current on her lower back for 20 minutes, 3 times /week for 4 weeks, and she was asked to perform strengthening exercises for core muscles (abdominal, back, pelvic floor muscles), posterior pelvic tilting and postural correction exercises for 60 minutes, 3 times / week for 4 weeks. Group (B): This group was consisted of 15 women. Each woman in this group was asked to perform strengthening exercises for core muscles (abdominal, back, pelvic floor muscles), posterior pelvic tilting and postural correction exercises for 60 minutes, 3 times / week for 4 weeks. Results of this study revealed that interferential current augmented by strengthening exercises for core muscles was more effective than using strengthening exercises for core muscles only to treat low back pain after delivery.

Key words	**1.**	**Low back pain**
	2.	**Interferential current**
	3.	**Core muscles strengthening exercises**
	4.	**Delivery.**
Classification number	**:**	**000.000.**
Pagination	**:**	**168 p.**
Arabic Title Page	**:**	**تأثير التيار المتداخل مزود بتمرينات تقوية للعضلات المحورية على ألم أسفل الظهر بعد الولادة.**
Library register number	**:**	**7253-7254.**

Author	**:**	**Ramez Yousry Fawzy Bakhoom**
Title	**:**	**Effect of ball stability exercise versus foam roller exercise on low back pain during pregnancy**
Dept.	**:**	**Physical Therapy for Women's Health**
Supervisors	**1.**	**Khadija Syed Abdul Aziz**
	2.	**Abdel Hamid Abdel Aziz Atta Allah**
	3.	**Mohamed Ahmed Mohamed Awad**
Degree	**:**	**Doctoral.**
Year	**:**	**2020.**
Abstract	**:**	

This study was conducted to compare the effect of ball stability exercises versus foam roller exercises on low back pain during pregnancy. Forty pregnant women in second trimester of pregnancy complaining of low back pain participated in this study. They were selected randomly from Physical Therapy department in Al Zahraa University Hospital in Cairo, Al Azhar University. The study was conducted from January 2019 to June 2019. Their ages were ranged from 20 to 35 years old and their body mass index was ranged from 28 to 34 kg/ m^2. They were primigravida and multigravida. Women with infectious diseases and inflammation, risk pregnancy, hemorrhagic diseases, musculoskeletal disorders as disc prolapse, spondylosis, lumbar canal stenosis and spondylolisthesis, history of medication affect back pain or pelvic pain, history of back trauma and history of surgery in the back region or the lower extremities were excluded from the study. They were divided into two groups equal in number, group A treated by ball stability exercises for twelve sessions, three times per week for four weeks and group B treated by foam roller exercises for twelve sessions, three times per week for four weeks. Visual analogue scale (VAS) was used to measure pain intensity and Pregnancy mobility index was used to assess functional disability for both groups A and B before and after treatment. Results of this study found that, there was a statistically highly significant decrease (P<0.01) in low back pain intensity and functional disability in both groups A and B post treatment. Between groups the obtained results showed that there was no statistical significant difference pre treatment, but post treatment there was a statistically highly significant difference in low back pain intensity and functional disability (more decrease in group B). Accordingly, it can be concluded that foam roller exercises is more effective in reducing low back pain intensity and functional disability than ball stability exercises.

Key words	**1.**	**Ball stability**
	2.	**Foam roller**
	3.	**Low back pain**
	4.	**Pregnancy**
Classification number	**:**	**000.000.**
Pagination	**:**	**119 p.**
Arabic Title Page	**:**	**تأثير تمرينات الكرة الثابتة مقابل تمرينات الاسطوانة الاسفنجية على آلام أسفل الظهر أثناء الحمل.**
Library register number	**:**	**7095-7096.**

Author	**:**	**Rofan Mohamed Saad Ahmed.**
Title	**:**	**Effect of Biomechanical alignment and Jaw Movement on Females With Pelvic Pain.**
Dept.	**:**	**Physical Therapy for Women's Health**
Supervisors	**1.**	**Amel Mohamed Yousef**
	2.	**Hamada Ahmed Hama**
	3.	**Mohamed Fawzy Abo Eleinien**
Degree	**:**	**Doctoral.**
Year	**:**	**2020.**
Abstract	**:**	

Background: Chronic pelvic pain (CPP) can affect women's quality of life, activity levels and can lead to several adverse side effects such as changes in posture and biomechanical alignment. Up to our knowledge, there is no study made a comparison between cyclic CPP, noncyclic CPP and normal women regarding the biomechanical changes and temporomandibular joint (TMJ) movement. Purpose of the study: Determine the contribution of biomechanical alignment changes and TMJ movement on women with CPP. Participants: Sixty females participated in this study assigned in three groups [Cyclic CPP group (A), Non-cyclic CPP group (B), Normal group (C)] from the gynecology clinic of the EL-Hosary health center, 6 October City. All participant's ages ranged from 20 to 30 years, and their Body Mass Index (BMIs) ranged from 18 to 25 Kg/m2. Methods: A case-control study, the inclinometers were used to measure lumbopelvic angles, digital caliper to measure TMJ movements and the Fonseca questionnaire for temporomandibular disorder (TMD). Results: There were significant differences among the three groups in lumbopelvic angles, TMJ movements and TMD. There were significant increases in the lumbopelvic angles and TMD in favor to group A and B compared with group C. There were significant decreases in the TMJ movements in favor to group A and B compared with group C. Conclusion: Both biomechanical changes, TMJ movement affect CPP.

Key words	**1.**	**Biomechanical alignments**
	2.	**pelvic pain**
	3.	**temporomandibular joint.**
	4.	**Jaw Movement.**
	5.	**Females With Pelvic Pain.**
Classification number	**:**	**000.000.**
Pagination	**:**	**119 p.**
Arabic Title Page	**:**	**تأثير المحاذاة الميكانية وحركه الفك على آلام الحوض لدى النساء.**
Library register number	**:**	**6949-6950.**

Author	**:**	**Yara Nabil Zaki Marwan.**
Title	**:**	**Biomechanical alignment of lower limb as a predictor for stress urinary incontinence in postmenopausal women.**
Dept.	**:**	**Physical Therapy for Women's Health**
Supervisors	**1.**	**Amel mohamed yousef**
	2.	**Mohammed saeed eldin elsafty**
	3.	**Hamada ahmed hamada**
Degree	**:**	**Doctoral.**
Year	**:**	**2020.**
Abstract	**:**	

Background: Stress Urinary Incontinence (SUI) is medical problem affect postmenopausal women characterized by the involuntary loss of urine with increases in intra-abdominal pressure. It was reported that any malalignment in the lumbar and pelvic regions leads to inadequate pelvic floor muscle (PFM) activity and force distribution in these areas, which might be connected to urinary incontinence. Purpose of the study: was to provide an evidence base for the relationship between biomechanical alignment of lower limb and (SUI) as well as using biomechanical aligment as a predictor for stress urinary incontinence (SUI) in the postmenopausal women as well as used as a predictor for SUI in the postmenopausal women. Participants: A sample of three hundred postmenopausal women were selected from Department of Gynecology and Obstetrics, Oum El Masryn General Hospital, Giza. Their age ranged from 55-65 years and body mass index (BMI) was less than 30 kg/m2 .Participants were assigned into two groups (group A) normal group (n= 117) and (group B) abnormal group (n=183) after the diagnosis for presence or absence of SUI by the following : measuring Post Void Residual (PVR) urine volume using the transabdominal ultrasound and the Questionnaire for Urinary Inconenence Diagnosis (QUID). Methods: An observational cross sectional study in which the participants had received assessment measurement of post void residual (PVR) urine volume, , pelvic incidence (PI) angle (pelvic tilt (PT) angle + sacral slope (SS) angle), Quadriceps (Q) angle, femoral anteversion angle, tibial torsion angle and navicular bone height (NH) difference in addition to the Questionnaire for Urinary Incontinence Diagnosis (QUID). Results: Revealed that there was strong positive correlation (P< 0.0001) between Post Void Residual (PVR) urine volume and tibial torsion, femoral anetversion,pelvic incidience (PI), Pelvic tilt (PT), and Sacral slope (SS). Weak positive correlation (P< 0.0001) between PVR and navicular bone height (NH) , and strong negative correlation between Post void Residual (PVR) urine volume and Q angle. positive regression (p=0.0001) between PVR and tibial torsion. femoral anetversion, pelvic incidience (PI), Pelvic tilt (PT), and Sacral slope (SS), positive regression between post void residual (PVR) urine volume and navicular bone height (NH) and negative regression between post void residual (PVR) urine volume and Q angle. Moreover, the results indicated that there were significant (P< 0.05) prediction between post void residual (PVR) urine volume with tibial torsion angle femoral anteversion , Pelvic incidence (PI), Pelvic tilit (PT) , sacral slope (SS) , Q angle and navicular bone height (NH) .Sensitivity, specifity and accuracy for CT measurments and geniometeric measurments for the angles : tibial torsion, femoral anteversion and Q angle were so close and similar . The statistical analysis by Chi-square test (χ^2-test) revealed that there was significant difference (P=0.0001) (P<0.05) between normal and abnormal groups for the QUID. Conclusion: Hence, Biomechanical alignment of lower limb would be used as a predictor for stress urinary incontinence (SUI) in post-menopausal women.

Key words	**1.**	**Stress urinary incontinence.**
	2.	**Quadriceps angle.**
	3.	**post void residual urine volume.**
	4.	**postmenopausal women.**
	5.	**femoral anteversion.**
	6.	**pelvic incidence.**
	7.	**tibial torsion.**
	8.	**navicular bone height.**
Classification number	**:**	**000.000.**
Pagination	**:**	**144 p.**
Arabic Title Page	**:**	**الميكانيكا الحيوية للطرف السفلي كمؤشر لاكتشاف حالات السلس البولي في السيدات بعد انقطاع الدورة الشهرية.**
Library register number	**:**	**7183-7184.**

Author	**:**	**Yasmin Mohamed Assim Mohamed.**
Title	**:**	**Effect of Ultrasound cavitation versus radiofrequency on abdominal fat thickness in postnatal women.**
Dept.	**:**	**Physical Therapy for Women's Health**
Supervisors	**1.**	**Khadiga Sayed Abd El-Aziz**
	2.	**Ghada Ebrahim El-Refaye**
	3.	**Ashraf Talaat Youssef**
Degree	**:**	**Doctoral.**
Year	**:**	**2020.**
Abstract	**:**	

This study was conducted to compare the effectiveness of ultra-sound Cavitation versus radiofrequency on abdominal fat thickness in postnatal women. Fifty overweight primipara women at 6 months postnatally aged from 20-35 years, BMI not exceed 29.9 kg/m^2 and have waist hip ratio (WHR) > 0.8. were selected from the outpatient clinic of the family planning, obstetrics and gynecology of Fayoum University Hospital. They were assigned randomly into 2 equal groups: Group (A) received ultra-sound cavitation40 KHz applied for 30 min, once weekly for 8 weeks. Group (B) received radiofrequency multi-polar 1MHZ applied for 30 min, once weekly for 8 weeks. Both groups received the same diet program throughout the treatment period. All females in both groups were assessed through weight scale for body weight, tape measurement for waist/hip ratio and ultra-sonography for fat thickness of abdominal region before and after treatment. The results showed that there was a significant reduction of body weight, abdominal fat thickness at three level (at the umbilicus level, above and below umbilicus by 5 cm) in both groups with favorable results for group A. And a significant reduction of waist/hip ratio in group A only (P-value =0.0001*). That group (B) revealed that there was no significant difference of waist/hip ratio at post treatment in compare to pre-treatment (P-value =0.051). In conclusion the ultrasound cavitation and radiofrequency are effective physical therapy modalities in treatment of abdominal fat thickness but, US cavitation more effective than RF in reduction of WHR and abdominal fat thickness in management of abdominal obese in postnatal women.

Key words	**1.**	**Ultra-sound cavitation**
	2.	**Radiofrequency,**
	3.	**Abdominal fat thickness**
	4.	**Postnatal women**
Classification number	**:**	**000.000.**
Pagination	**:**	**107 p.**
Arabic Title Page	**:**	**تأثير الموجات فوق الصوتية بالتجويف مقابل ترددات الراديو على سمك دهون البطن لدى السيدات بعد الولادة.**
Library register number	**:**	**7087-7088.**