

Case study

PELVIC FLOOR DYSFUNCTION: Case Report

ABSTRACT:

Pelvic floor dysfunction and pelvic myofascial pain are treatable and common musculoskeletal conditions. Understanding the relationship between pelvic girdle and pelvic floor muscles (PFM), hips and spine will help the practitioner to diagnose and treat these conditions. Pelvic floor dysfunction and pelvic pain are treated with clinical examination and complete medical history of PFM. Treatment is a cooperative approach, which consists of medications, pelvic floor physical therapy, injection and other treatment options. This examines the physical and anatomical examination of the pelvic floor, discusses the epidemiology and definition of pelvic floor dysfunction and explains the physiotherapy approach to treating these common conditions.

Comment [LAB1]: Segregate abstract into background, aim, objectives, findings and conclusions for clarity and readability

KEYWORDS:

Pelvic floor dysfunction, disorders of hypertonic pelvic floor, urinary incontinence, pelvic floor physiotherapy, pelvic organ prolapse.

Comment [LAB2]: Tell us what the aim of the case study is..a little about the patient and the treatment offered

Comment [LAB3]: Check spelling error

Comment [LAB4]: This what? Case Study?

Comment [LAB5]: Check spelling error

Comment [LAB6]: What were the findings and conclusions drawn from the case?

Comment [LAB7]: Split into "pelvic floor" and "dysfunction"

INTRODUCTION:

Pelvic floor dysfunction (PFD) seems to be simple and complex process that develops secondary to multiple factors . Pelvic floor dysfunction is a broad spectrum variety of disorders that occurs when the ligaments and pelvic floor muscles are impaired (1). With life expectancy, the incidence of PFD is increasing. It is a term that refers to a wide range of clinical structure consisting defecation disorder and excretory lower urinary tract such as anal incontinence and urinary , over pelvic organ prolapsed and active bladder , diastasis recti including sexual disorder . Pelvic organ is surrounded by the tissues may have increased or decreased sensitivity irritation resulting in pelvic pain (2).

Comment [LAB8]: Consider revising this phrase. Is it a simple or complex process? It can't be both

Comment [LAB9]: Check spelling

Comment [LAB10]: Check space before comma
Also, kindly indicate some of these multiple factors and add citations. Are there empirical studies that have confirmed the relationship between PFD and these factors, kindly include a few

Comment [LAB11]: Is this Vancouver referencing? Then kindly use box brackets [1]

Comment [LAB12]: Kindly review for grammatical and punctuation errors, including proper referencing

Comment [USER13]: Kindly insert a comma

Comment [USER14]: Did you mean "foetal"?

Comment [USER15]: show

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In health care system, it is a financial stress and affects women's quality of life. To decrease PFD strategies are applied are focused on the course of pregnancy, management and mode of delivery and methods of pelvic exercises. Non modifiable risk factors are maternal age, position of the foetus and foetal circumference. PFD is a heterogenous pathological condition and the effects of vaginal delivery, pregnancy, caesarean delivery and possible risk factors of PFD may be different from each other. Although numerous studies shows vaginal delivery affects muscles of pelvic floor structure and there functions in a negative way, there is not enough confirmation to approve selective caesarean delivery in order to prevent development of PFD (3). During childbirth and pregnancy relax pelvic floor tissue and reduces pelvic floor muscle strength (PFMS) which is the dormant stage of PFD. Early PFD changes are electro physiological change and biochemical change in the pelvic floor supporting tissue, and

symptomatic pelvic floor disorders can occurs if the injury develops further. Diastasis rectii abdominis (DRA) is the enlargement of the edges of the rectii abdominis at linea alba (4). According to the theory of pelvic dynamics, weakness of abdominal wall may affect the abdominal , thoracic and pelvic dynamic resulting in the force from the diaphragm in the thorax and the abdomen being applied in the pelvic floor muscles(PFMs) rather than being applied to the sacrococcyx . Additionally it has been hypothesized that if the abdominal muscles are weak , then the abdomen cannot respond when the PFMs contract , and therefore the PFMs is weakened (5).

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CASE PRESENTATION:

A 40 years old female, has been admitted in gynaecology department on 9/10/21 with chief complains of urinary issues such as painful urination, bowel strains , constipation , low back pain , pressure in pelvic region & pain in pelvic region since last 15 days.

Comment [USER22]: Kindly shift the comma closer to the word

Comment [USER23]: Space between muscles and (PFMs)

Comment [USER24]: What is the objective of this case study? Kindly include

ASSESSMENT:

1) Perineometry/Perineometer:- Pelvic Floor Muscle Strength measured by a Perineometer is a device which is used to evaluate the pelvic floor muscular strength (PFMS). Along with the assessment of pressure it is also used in teaching pelvic floor muscle exercises so it is also called Pressure Feedback.



Fig 1. Use of perineometry-It helps to increase the intra abdominal pressure.

2) Lower abdomen strength test : It is a test which is used to assess lower abdominal strength; subject lies in a supine position on a bed with arms rested behind the head; physiotherapist may assists in raising the legs up to a vertical position (alternate leg may be raised if needed) keeping the knees straight; subject then perform a posterior pelvic tilt and maintain the position while slowly lowering the legs to horizontal; strength is graded on the ability to keep the low back flat on the surface; the angle at which the back arches is noted and correlated with Kendall's grading system.

Comment [USER25]: was

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Comment [USER27]: kindly remove the space between the comma and strains

Comment [USER28]: kindly type in full. Do not use a symbol

Comment [USER29]: source?

Comment [USER30]: after the Perinometry assessment done on the 40 year old female, what were the results which were obtained?

Comment [USER31]: consider using a clearer image. Where was the image adopted from? Kindly acknowledge to avoid copyright issues

Comment [USER32]: kindly indicate only the name of the apparatus and add the source of the image

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please consider using full stops instead of semicolons

also indicate the results of this test after it was conducted on the woman

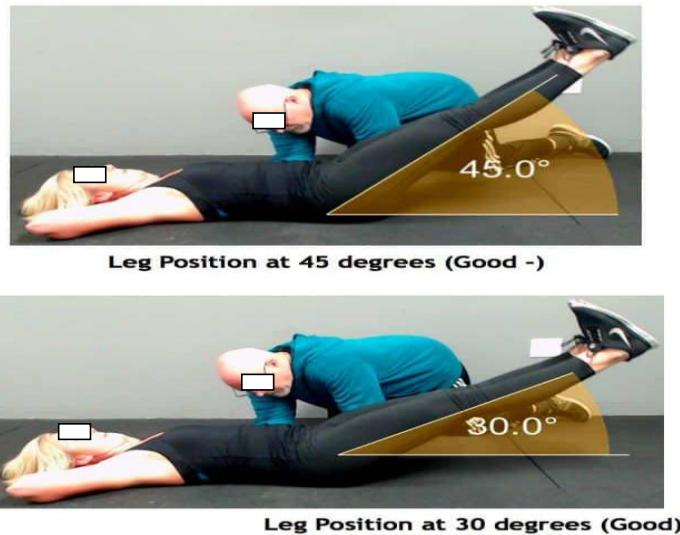


Fig 2. Legs position

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INTERVENTION:

1) Pelvic floor strengthening exercises: The pelvic muscles support the uterus, bowels and bladder. When they contract, the organs are lifted and the openings to the anus, vagina and urethra are constricted. Urine and feces are released from the body when the muscles are relaxed. In sexual function, the pelvic floor muscles also plays an important role. When we Strengthen these muscles, there is reduction of pelvic pain during sex and increase the ability to achieve pleasant sensations. The pelvic floor muscles support the baby during pregnancy and helps in childbirth. Childbirth and Pregnancy can cause to weaken the pelvic floor muscle and other factors like obesity, chronic coughing , heavy lifting and age.

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Comment [USER38]: play

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Comment [USER40]: no citation?

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Comment [USER42]: rephrase this statement.
It is not clear

Main muscles worked: pelvic floor

1. Identify the right muscles. The easiest way to do this is to stop urination midstream. These are your pelvic floor muscles.

2. To perform Kegels exercise, muscle is contracted and hold for 5 sec and then release for 5 seconds.

3. Advise patient to do repetitions 10 times & 3 times a day for 6 weeks.



Fig 3. Back Strengthening Exercises

Comment [USER43]: which of these interventions were performed for the patient? Kindly indicate. Were there any complications in the process of enforcing the interventions?

2) Back Strengthening Exercises: The goal of back strengthening exercise is to condition the muscles to give better support to the spine and resist stress, which can relieve neck and back pain. Most strengthening exercises of back focuses on the core muscles, including the gluteus, abdominal and hip muscle in addition to muscles that surround the spine. Back strengthening exercises helps to –

- Reduce spinal discs and joints stress.
- Overall posture and better spinal alignment.
- Relax the patient with movements that may cause pain, e.g. twisting , lifting , bending .

In most cases, 2 or 3 times a week strengthening exercises are recommended to a patient and as a part of an overall exercise program.

Comment [USER44]: Source of the image?

OUTCOME MEASURES:

1) Oxford scale for pelvic floor dysfunction:-

Comment [USER45]: Source? Was this carried out on the patient? Kindly indicate

Oxford Grading Scale modified by Laycock.

Comment [USER46]: Source of this image?

Oxford Grading Scale by Laycock

- | | |
|---|---|
| 0 | No muscle activity |
| 1 | Minor muscle "flicker" |
| 2 | Weak muscle activity without a circular contraction |
| 3 | Moderate muscle contraction |
| 4 | Good muscle contraction |
| 5 | Strong muscle contraction |

2) Quality of life scale:-

Quality of Life (QOL) is a complex concept that measures a person's health. The use of quality of life and discussion as a measurable health outcome that is increased since the past decades as healthcare had shifted from a disease-centric biomedical model to a more aggregate and focused well-being Model or bio pycosocial model. QOL has became more important with improved medical treatment and management of diseases, which has helped to lengthen the life of people in general and especially the peoples live with chronic diseases(7,8).

RESULT:

- Pre treatment on perineometer pelvic floor strength was 5 mmHg.
- Post treatment on perineometer pelvic floor strength was 35 mmHg.

According to Oxford scale for pelvic floor dysfunction post treatment pelvic floor strength was Grade 4 ,i.e Good muscle contraction and quality of life improved after pelvic floor muscle strengthening . Patient is more independent to attend social gatherings , psychosocially independent.

Comment [USER47]: Please check spacing and write abbreviations in full

Comment [USER48]: Kindly check spacing between punctuations

DISCUSSION:

Pelvic floor dysfunction incorporation of which procedure during training session would improve the strength of pelvic floor muscles, this advanced technology device that is Perineometer .

Comment [USER49]: Kindly rephrase this statement

As per the study Wang Q, Yu X, Chen G, Sun X, Wang J. E t, al. discussed that to improve the pelvic floor muscle strength and strengthening exercises in the pelvic floor dysfunction females.Although the impact on the general that also helps to reduce the risk of urinary incontinence. In this condition, only back strengthening exercise is not effective for correct pelvic floor dysfunction. That's why the physiotherapy managements like Kegels exercises

Comment [USER50]: Kindly do consistent and proper referencing

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and abdominal strengthening is given to the patient for correct pelvic floor dysfunction with perineometer (9,10).

Comment [USER54]: Kindly relate more empirical literature to the results of this case study

CONCLUSION:

From the above study, we conclude that the physiotherapy treatment which is given to the patient is effective treatment. This is generally not life frightening and greatly affects the life of people.

REFERENCES:

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Comment [USER55]: What recommendations can be drawn from the study?

What were the study limitations?

What were the author's contributions?

What ethical considerations were carried out?