

Rehabilitation of a Women Facing Social and Physical Challenges

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Abstract:

Introduction: Conditions related to socioeconomics, demographics, races, religions, and disabilities, among others, might overlap and increase their exposure. And the various forms of marginalization and discrimination that women and girls encounter worsen the cycle of violence to which they are subjected. Urinary incontinence can be evident in women after multiple child births or with increasing age. Nonsurgical management is considered as the first line of management. The preliminary management of simple SUI includes a variety of noninvasive interventions, including behavioral modification, pelvic floor exercises (PFEs) with or without biofeedback, and other accessory teaching aids. **Case Report:** The purpose of the present study is to find out if repetition of pelvic stabilization exercise impacts upon the management of stress urinary incontinence. For the management of urinary incontinence, patients have been treated by A Bangla booklet on urinary incontinence, Kegal exercises and pelvic floor exercises in a booklet instruction in Bangla, an exercise logbook to maintain exercise. All the pelvic floor exercises started with 10 repetitions of exercise each, increasing 10% of exercise each week for a 4-week duration. After 4 weeks, clinically significant improvements were found in the strength and endurance of pelvic floor muscles and in the ICIQ-UI questionnaire (brief). **Conclusion:** urinary incontinence can degrade a patient's physical, functional, and daily living status. Structured exercise therapy determined by physiotherapists contributes to the improvement of muscle function, genito- urinary system function, and quality of life for these patients.

Keywords: Kegal exercise, Physiotherapy, Counselling.

INTRODUCTION

urinary incontinence followed by can be defined as "Involuntary discharge of urine as a outcome of physical actions that surge abdominal pressure on the urinary bladder without detrusor contraction or over distended bladder. Classification is related to amount of leakage, succession and opening of the neck of bladder and urethra deprived of bladder contraction, and sphincter deficiency" [1]. The symptoms include loss of less than fifty milliliters of urine occurring with increased abdominal pressure, loss of urine occurring with increased abdominal pressure [2]. The nonsurgical management is considered as the first line of management, the initial management of modest SUI involves a variety of noninvasive interventions, counting modification of behavioral, exercises of Pelvic Floor Musculature (PFEs) with or without biofeedback, and other accessory modified education aids [3]. Stress urinary incontinence can be evident in women, after multiple childbirth or with increasing age. There is a study that investigated two hundred women with low back pain and found that more than seventy percent of them suffer from urinary incontinence (UI) [4]. Recent evidence suggests stabilization exercise focusing on pelvic floor

beneficial for increasing pelvic floor muscle strength along with endurance, and transverses abdominis muscle strength additionally functional ability [5]. The repetition of pelvic floor stabilization has several instructions ranging from 10 repetitions to 30 repetitions per set 3 to 5 times in a day for 6-12 weeks. The repetition protocol is not defined and in Bangladesh patient usually don't take physiotherapy for 12 weeks.

CASE

The patient, MS, is a mother of four who is 49 years old. She has had urine and fecal incontinence since giving birth to her most recent child. The current presentation is brought on by intense and frequent urges (voiding every hour). She also experiences an incomplete emptying due to symptomatic prolapse. According to the history, she did suffer a serious (fourth degree) tear when giving birth to one of her children. Six weeks later, a delayed repair was necessary for this. She saw a physiotherapist three years ago, who discovered that the exercise program had only a minor impact on her incontinence. She has already used the suggested nonpharmacologic conservative measures and has spoken with a nurse continence advisor. She has tried a number of pessaries, which have improved her prolapse but not her incontinence. Her body mass index (BMI) is 25 kg/m², which indicates that she has a reasonably slender body type. Her test for cough-stress is negative. She has a uterus that is a little big and has a lot of uterine prolapse that extends 3 cm past the hymen. She has a weak anal sphincter, a rectocele, and a class 4 cystocele. A progressive increase in detrusor pressure with filling and leaking upon standing at a detrusor pressure of 35 cm H₂O were indicators of overactive bladder, according to urodynamics. She had normal detrusor pressure and emptied well.

OUTCOME

On the first week her Pelvic Floor Strength in Oxford Muscle Grading was 2, Abdominal Muscle strength in Oxford Muscle Grading was 2, Pelvic floor endurance in single contraction was 7 seconds and abdominal muscle endurance in single contraction 6 seconds. The total ICIQ sum was 12. On the second week her Pelvic Floor Strength in Oxford Muscle Grading was 3, Abdominal Muscle strength in Oxford Muscle Grading was 3, Pelvic floor endurance in single contraction was 9 seconds and abdominal muscle endurance in single contraction 9 seconds. The total ICIQ sum was 10. On the third week her Pelvic Floor Strength in Oxford Muscle Grading was 3, Abdominal Muscle strength in Oxford Muscle Grading was 3, Pelvic floor endurance in single contraction was 12 seconds and abdominal muscle endurance in single contraction 12 seconds. The total ICIQ sum was 8. On the fourth week her Pelvic Floor Strength in Oxford Muscle Grading was 4, Abdominal Muscle strength in Oxford Muscle Grading was 4, Pelvic floor endurance in single contraction was 15 seconds and abdominal muscle endurance in single contraction 15 seconds. The total ICIQ sum was 4.

DISCUSSION

The case was a diagnosed case of stress urinary incontinence. The stress urinary incontinence has been diagnosed by asking the patient whether she has any leakage of urine during any abdominal pressure. The diagnostic protocol merges with the instructions of assessment of stress urinary incontinence by International Classification Diseases (ICD-10) manual. Also, the ICIQ questionnaires has been used to evaluate the incontinence.

The ICIQ-UI Brief Form is a short and psychometrically strong self-completed questionnaire for assessing the occurrence, severity, and impact on quality of life (QoL) of urinary incontinence in women in research and medical practice all over the world. It has a scale beginning with 0 and

conclude with 21. The ICIQ-UI Quick Form offers a brief and strong measure to assess the effect of symptoms of incontinence on outcome. This brief and simple questionnaire will also be of use to general practitioners and clinicians in both primary and secondary care institutions to screen for incontinence, to obtain a brief yet comprehensive summary of the level, impact, and perceived source of symptoms of incontinence then to facilitate patient-clinician debates. Its shortness also makes the ICIQ-UI Short Form a model study tool. Kegal exercise has been chosen as intervention. Moderate medicines, a nonsurgical treatment, incorporate improving the way of life, bladder preparing, pelvic floor muscle activities, biofeedback, and the electrical incitement of pelvic muscles [6]. Kegal practices are the most mainstream technique for strengthening pelvic floor muscles and are noninvasive treatment with the end goal that they don't include the position of any vaginal loads/cones. They were first depicted in 1948 by the American gynecologist Arnold Kegal. They are the most practical treatment and contrast from different treatments in that the patients can do them independent from anyone else whenever, anyplace, while doing other work, and without ordinary medical clinic visits. The patients just should be prepared in how to get their pelvic floor muscles. Most examinations show that Kegal practices consistently strengthen the pelvic muscles [7]. Be that as it may, practically speaking the aftereffects of patients shift contingent upon whether they practice their pelvic floor muscles in the wake of recognizing them, how truly they exercise, and how much trust they place in the activities themselves. Henceforth, these examination results should be basically assessed regarding real practice [8]. Additionally, a few examinations have detailed orderly audits on pelvic floor muscles practices yet have secured the female urinary incontinence with stress, encourage, and blended UI or have managed all nonsurgical treatment including drugs [9]. All in all the examination demonstrated the improvement of SUI indications in moderately aged ladies who did Kegal practices and included unbiasedly confirmed information, explicitly information from both the cushion test and vaginal perineal muscle contractility information [10]. Even though the Kegal practice strategy has not yet been institutionalized, these outcomes reliably show the support of pelvic muscles and confirm that Kegal practices are for sure a protected technique for mediation. Be that as it may, the references utilized in this examination for the most part manage momentary mediations of around a quarter of a year, and further improvement in the counteraction and the executives of urinary incontinence in premenopausal moderately aged ladies utilizing Kegal practices requires longer-term considers. The participants were asked to provide management recommendations for the prolapse and incontinence of this patient based on the case presentation. The majority of participants said they would attempt a course of medication in an effort to lessen her OAB symptoms. In order to find solutions for her fecal incontinence, anorectal imaging and/or referral to a colorectal surgeon were also mentioned as prospective options. It might be beneficial to suggest she change her food and way of living. For instance, cutting out caffeine from her diet can ease her urge sensations. It was also advised to try physiotherapy again because it had been a while since the last time this intervention was used. While her prolapse was surgically corrected, and pessaries were once again used,

CONCLUSION

Stress urinary incontinence can be evident with lumbar disc herniation, and together these impairments can degrade a patient's physical, functional, and daily living status. Structured exercise therapy determined by physiotherapists contributes to the improvement of muscle function, genito- urinary system function, and quality of life for these patients.

REFERENCES

1. Hoy D, Brooks P, Blyth F, et al. The epidemiology of low back pain. *Best practice & research Clinical rheumatology* 24 (2010): 769-781.
2. Petersen T, Laslett M, Juhl C. Clinical classification in low back pain: best-evidence diagnostic rules based on systematic reviews. *BMC musculoskeletal disorders* 18 (2017): 1-23.
3. Jordan JL, Konstantinou K, O'Dowd J. Herniated lumbar disc. *BMJ clinical evidence* 2011 (2011).
4. ICD - ICD-10 - International Classification of Diseases, Tenth Revision.
5. Rovner ES, Wein AJ. Treatment options for stress urinary incontinence. *Reviews in urology* (2004): S29.
6. Wyman JF. Treatment of urinary incontinence in men and older women: the evidence shows the efficacy of a variety of techniques. *AJN The American Journal of Nursing* 103 (2003): 26-235.
7. Eliasson K, Nordlander I, Larson B, et al. Influence of physical activity on urinary leakage in primiparous women. *Scandinavian journal of medicine & science in sports* 15 (2005): 87-94.
8. Chiarioni G, Whitehead WE, Pezza V, et al. Biofeedback is superior to laxatives for normal transit constipation due to pelvic floor dyssynergia. *Gastroenterology* 130 (2006): 657-664.
9. Provides peer-reviewed scientific and evidence-based clinical publications for surgical, medical, and diagnostic spine care.
10. Rabin A, Shashua A, Pizem K, et al. A clinical prediction rule to identify patients with low back pain who are likely to experience short-term success following lumbar stabilization exercises: a randomized controlled validation study. *Journal of orthopaedic& sports physical therapy* 44 (2014): 6-13.
11. Hay-Smith EJ, LC BB, Hendriks HJ, et al. Pelvic floor muscle training for urinary incontinence in women. *The Cochrane database of systematic reviews* 1 (2001): 001407
12. Hong JY. The efficacy of pelvic floor muscle exercise in patients with genuine stress incontinence. *Korean Journal of Urology* 38 (1997): 639-64

Table 1: Outcome Measurement

Outcome measurement	1 st week	2 nd week	3 rd week	4 th week
Pelvic Floor Strength in Oxford Muscle Grading	Grade 2	Grade 3	Grade 3	Grade 4
Abdominal Muscle strength in Oxford Muscle Grading	Grade 2	Grade 3	Grade 3	Grade 4
Pelvic floor endurance in single contraction	7 Seconds	9 Seconds	12 Seconds	15 Seconds
Abdominal muscle endurance in single contraction	6 Seconds	9 Seconds	12 Seconds	15 Seconds

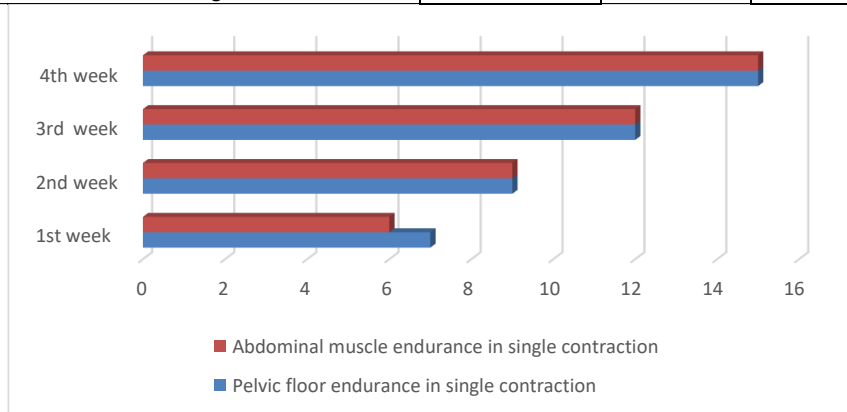


Figure 1: Weekly Progression of Endurance (measured with second)