



SUMMARY

Urinary incontinence is the inability to control the release of urine from the bladder. This problem has varying degrees of severity. Some people experience only occasional, minor leaks or dribbles of urine. Others wet their clothes frequently. For a few, incontinence means both urinary and fecal incontinence which mean the uncontrollable loss of stools.

Urinary incontinence in women is associated with negative effect and depression, which increase as a result of loss self – esteem and restriction of sexual activities. The nurse deals with incontinence by identifying its type, initiating pelvic floor muscle exercise, bladder retraining, evaluating diet – medication- skin care- life style and motivation to continue with pelvic floor muscle exercise as a behavioural technique effectively reduces urinary incontinence without adding significant side effect. So, it allows the women to re-establish voluntary control over their bladder.

Research hypothesis

* Women's who have participating in pelvic floor muscles exercises will have better improvement and decrease recurrence of urinary incontinence than those who don't.

Aim of the study

The present study was aimed to study the effect of pelvic floor muscles exercises on improvement of urinary incontinence among women.

Methodology:

* **Research design:** Quasi-experimental design.

* **Setting:** The study was conducted at: Urologic & Gynecological out patient clinic at benha university hospital.



- * **Sample:** - A total of 100 incontinent women were included in the study which divided into two groups (each group contains 50 women)
- * The first group (Pelvic floor muscles exercise and medical treatment)
- * The second group (Medical treatment only).

Tools of data collection were:

1) - Structured interviewing questionnaire sheet (appendix 1):

The researcher constructed Arabic questionnaire sheet. its purpose was to collect the socio-demographic characteristics of women, anthropometric measurements, obstetric history, history of urinary incontinence, past medical and surgical history, current medical history and daily habits, the questionnaire was in the form close ended questions, the time allowed to fill it was 15- 20.

2) Clinical assessment sheet include:

- a- Objective assessment of the degree of urinary incontinence according to symptoms.
- b- Pelvic floor muscles strength test (PFMS) or palpation test.
- c- Stress provocation test (SPT).

(3) Guidance booklet (appendix III):

The researcher constructed Arabic Guidance booklet. Its purpose was to providing awareness for women about urinary incontinence and pelvic floor muscles exercises.

4) The training program:

According to the finding of pilot study, women needs were determined so, general & specific objective of the program were stated, and program content as well as teaching strategies was prepared. The training program for women will consist of different session (theory & practice).

**Theoretical sessions were included of the following:**

- Anatomy of lower urinary system and pelvic floor muscles.
- Physiology of urination.
- Definition, types & symptoms of urinary incontinence.
- Factors and causes related to urinary incontinence.
- Prevention & methods of treating of urinary incontinence.

Practical session will be included the following:

- Teaches the women about how to identify the correct pelvic floor muscles.
- Teaches the women about correct methods for doing pelvic floor muscles exercises.

Evaluation:

The same tools used for assessment (questionnaire sheet, clinical assessment sheet in addition to use the subjective patient evaluation to evaluate the effect of the program. Data of the current study were collected from May, 2010 and completed at the end of April, 2011 covering twelve months.

Results of this study indicated that the mean age of study and control group (49.12 ± 12.76) and (46.46 ± 12.38) respectively, (36%, 34%) among two groups respectively had university education, the majority of the sample (76%, 84%) live in rural area respectively, more than half of them (64%, 66%) were house wife respectively. the majority of them were married (88%, 90%) respectively. And more than half of them (56 %, 54%) had positive family history of incontinence respectively.

As regard obstetric and gynecological history more than half of women in two groups had multi Para(69.0%), mean of gravida was (3.8 ± 0.53) and (3.8



± 0.49) in the two groups respectively. And vaginal deliveries was (3.70 ± 0.61) and (3.30 ± 1.03) respectively.

As regard the degree of urinary incontinence about one half (50.0% & 54.0%) among two groups had moderate degree of urinary incontinence respectively. Followed by mild degree (36.0% & 22.0%) respectively, and (14.0% & 24.0%) had severe degree of incontinence respectively.

Regarding degree of improvement there were highly statistically significant improvements ($p < 0.001$) in all grades of urinary incontinence in the study group. Most of women (78.0%) in study group had good and powerful contraction after a combination of pelvic floor muscles exercises and medical treatment, while (32.0%) in control group after treatment by medication only had good and powerful contraction.

The study concluded that:-

- Pelvic floor muscle exercises (PFME) are the best conservative method or physical therapy in the treatment of mild and moderate degree of urinary incontinence (stress and urge urinary incontinence). PFME methods have highly efficacy. Both, subjectively and objectively.
- Women's who had participating in pelvic floor muscles exercise course were had better improvement and decrease recurrence of urinary incontinence than those who don't.

The study recommended that:-

- Counseling patients about early reporting of urinary incontinence.
- Pelvic floor muscles exercise should be made available in gynecological and urologic out-patient office and offered routinely as options for first – line treatment of urinary incontinence.



- There is a need for follow up study to evaluate the effect of pelvic floor muscle exercise after period of time (five or six months) on the control of urinary incontinence.
 - Enforce good postpartum care with more emphasis in importance of pelvic floor muscle exercise.
 - Questions that asking about different types of urinary incontinence should be included in nursing record of gynecologic clinics in order to detect urinary incontinence cases.
 - In service training program should be carried out for nurses working in obstetric department to up grade their knowledge and skills in relation to care during intra and postpartum period.
- * **During labor:** Teach and prevent patients to strains hard before the cervix is full dilated, correct the tear of pelvic floor and perineal muscles.
- * **After labor:** All vaginal, pelvic floor and perineal lacerations should be probably repaired.
- Further researches are recommended in the field treatment of urinary incontinence such as: treatment by combination of different modalities, for example, pelvic floor exercise together with interferential therapy.