



ORIGINAL RESEARCH PAPER

Medical Science

Validity & Reliability of the tool to assess the awareness on Pelvic Floor Exercise among the Mothers

KEY WORDS: Pelvic Floor Exercise, Validity, Reliability.

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ABSTRACT

The Validity & Reliability of the tool to assess the awareness on Pelvic Floor Exercise among the Mothers was elicited using content validity index (CVI) & split half technique. CVI was checked by 5 subject experts and 86 samples were selected through convenience sampling technique to check the reliability. The tool developed and used for data collection was, a structured interview questionnaire which consists of two sections, section A deals on demographic variables and Section B consists of 20 questions of awareness on Pelvic Floor Exercise.

The content validation index was 95 %. The reliability ('r' value) by using split half technique was 0.87. There was highly positive correlation between 1st half and 2nd half of awareness scores regarding Pelvic Floor Exercise. Hence the 'r' value shows that the tool is highly reliable to assess the awareness on Pelvic Floor Exercise among the Mothers, therefore can be used by health care personnel in their research studies and also for routine administration in the patient care areas to know the awareness of Pelvic Floor Exercise.

INTRODUCTION

The pelvic floor (PF) is a well-defined muscular structure that plays a role in several important urological, gynecological, gastroenterological, and pulmonary functions. Pelvic floor dysfunction (PFD) can lead to mild or even devastating consequences such as urinary incontinence (UI), fecal incontinence (FI), pelvic organ prolapse (POP) and sexual problems¹. The major known risk factors that contribute to PFD are pregnancy and childbirth, obesity, chronic obstructive pulmonary disease, and menopause.

Pelvic floor exercise or Kegel exercise was developed to strengthen the supportive pelvic floor muscle to control or reduce incontinence of urine. These exercises are also beneficial during pregnancy and postpartum. They strengthen the muscles of pelvic organs and control of the pelvic floor, providing support for the pelvic organ Pelvic floor muscle exercise can help to treat women with stress incontinence (The leakage of urine) that occurs with coughing, laughing & sneezing.

According to **World Health Organization** bladder problems affect more than 200million people in the worldwide. Urinary incontinence is a disorder that affects women for more eloquently than men; 85% of people suffering from urinary incontinence are women.

Urinary incontinence has recently been identified by the world health organization as a major health issue in developed and developing nations. The total annual cost of care for patients with incontinence in the India is estimated at 11.2 billion in the community and 5.2 billion in the nursing home. Urinary incontinence in women during pregnancy with prevalence of urinary incontinence being reported before during and after pregnancy is 3.6% 43.7% and 14.7% respectively.

A cross-sectional survey conducted by Neels H, Wyndaele JJ, Tjalma A.A., De watcher Stefan, Wyndaele Michel, and Alexandra Vermandel among 212 nulliparous women to evaluate their knowledge on pelvic floor ,the women rated their knowledge about the pelvic floor as a mean of 2.4 (SD 2.01). A total of 93% of the women were insufficiently informed and requested more information; 25% had concerns about developing urinary incontinence, and 14% about fecal incontinence. Many of the women were unaware what pelvic floor training meant. There was a significant lack of knowledge about pelvic floor function among nulliparous women. The majority of nulliparous women expressed a need for education, which might offer a way to reduce dysfunction.

Based on the above literature it is obvious that the problem of stress incontinence due to poor pelvic muscle tone is a common but neglected problem among women after child birth. Therefore if mothers are assessed on their knowledge & given teaching on pelvic floor exercise, there could be a better awareness about the problem & thereby reduce the morbidity.

But unfortunately from the literature review made it is found that a standard tool is not available to assess the awareness on pelvic floor exercise among mothers. Therefore the need for a new tool was perceived by the researchers & thus a tool was designed & its validity & reliability were checked given below.

PROBLEM STATEMENT

Validity & Reliability of the tool to assess the awareness on Pelvic Floor Exercise among the mothers attending Obstetrics & Gynecological Outpatient Department in a Selected Tertiary care Hospital at Kanchipuram district, Tamil Nadu, India.

OBJECTIVES OF THE STUDY

- To find the Validity of the tool to assess the awareness on pelvic floor exercise among the mothers.
- To elicit the Reliability of the tool to assess the awareness on pelvic floor exercises among the mothers.

RESEARCH METHODOLOGY

The Validity & Reliability of the tool to assess the awareness on pelvic floor exercise among mothers was elicited using content validity index (CVI) & split half technique of checking reliability. CVI was checked by 5 subject experts and 86 samples were selected through convenience sampling technique to check the reliability.

RESEARCH TOOL (Enclosed at the end of the script)

- A Structured self administered questionnaire was designed for the study.
- The questionnaire consists of 20 knowledge questions on pelvic floor exercise.

Method of Scoring: There are 20 questions given in a questionnaire each correct answer carries '1' mark and for wrong answers '0' mark. Based on the score obtained by the samples they are categorized as follows: Adequate knowledge -76% and above, moderately adequate knowledge- 51%to 75% & Inadequate knowledge- Less than 50%.

Table: 1 Content validity index of the tool on pelvic floor exercise among mothers

RATER	SCORE (%) (n=20)	CONTENT VALIDITY INDEX (CVI)
1	80 %	
2	100 %	95 %
3	100 %	
4	95 %	
5	100 %	

The above table 2 describes the content validity scores by five subject experts and thereby the content validity index was found to be 95 %.

TABLE: 2 Reliability of the tool on awareness on pelvic floor exercise among mothers.(n=86)

	x' value (First half of the tool, 10 questions)	y' value (Second half of the tool, 10 questions)	'r' value
Mean	19164.52	25000.75	0.87
Standard deviation	222.84	290.70	

The total number of questions in the tool is 20. The knowledge scores of the questions was split into first half and second half (totally 20 questions). The knowledge scores of the first half was (x) and the knowledge scores of the second half was (y).The mean value for first half (x) was 19164.52 and mean value for second half (y) was 25000.75. Therefore the 'r' value by using split half technique using the formula $r = \frac{(x-\bar{x})(y-\bar{y})}{\sqrt{\sum(x-\bar{x})^2 \sum(y-\bar{y})^2}}$ Is 0.87

A highly positive correlation between 1st half and 2nd half of awareness scores regarding pelvic floor exercise among women was obtained. Hence the 'r' value shows that the tool was reliable to assess the awareness of pelvic floor exercise among women.

CONCLUSION

The tool designed by the researcher was simple and also found to be valid and highly reliable (r=0.87), therefore this tool can be used by the health care personnel in their research studies and also for routine administration in the patient care areas to know the awareness of pelvic floor exercise.

QUESTIONNAIRE TO ASSESS THE AWARENESS ON PELVIC FLOOR EXERCISE

Note: choose the most appropriate answer ()

1. Leakage of urine is a common problem faced by all women?

- a) Yes b) No

2. Women can able to control her urination whenever she wants?

- a) Yes b) No

3. Do you think leaking of urine is normal for at least 6 months after delivery?

- a) Yes b) No

4. Does a women loses urine during coughing, sneezing, exercise or effort such as intensive sports?

- a) Yes b) No

5. Do you find it normal if women daily use pad to manage urine leakage?

- a) Yes b) No

6. Are the muscles in the genitalia of the women are not as strong as before, after her child birth?

- a) Yes b) No

7. Do woman occasionally loses stool?

- a) Yes b) No

8. Caesarian delivery leads to the problem of urine leakage (stress incontinence) in future?

- a) Yes b) No

9. Leakage of urine (incontinence) occurs after delivery due to poor pelvic muscle tone?

- a) Yes b) No

10. Do you have any idea on the exercise that is thought to prevent/ treat urine leakage in women?

- a) Yes b) No

11. Alternate contraction and relaxation of the muscles around urinary meatus (as if controlling urination), is the technique of performing pelvic floor exercise?

- a) Yes b) No

12. Pelvic floor exercise can be performed in any comfortable position?

- a) Yes b) No

13. The exercise to strengthen the pelvic floor muscle and thereby preventing urine leakage (incontinence) can be done at any time of the day?

- a) Yes b) No

14. Pelvic floor exercise can be performed only once in a day?

- a) Yes b) No

15. Daily routine should be followed for good results of pelvic floor exercise?

- a) Yes b) No

16. Exercise to prevent urine leakage (incontinence) when performed while passing urine can cause urinary tract infections

- a) Yes b) No

17. There are no side effects in doing pelvic floor exercise regularly

- a) Yes b) No

18. The effect of doing regular pelvic floor exercise can be felt only after few weeks to months

- a) Yes b) No

19. Exercise to prevent urine leakage (incontinence) functions by strengthening the muscles of external genital!

- a) Yes b) No

20. Exercise to prevent urine leakage (incontinence) can be performed both by pregnant & non pregnant women?

- a) Yes b) No

ANSWERS

- 1) a. 2) a. 3) b. 4) a. 5) b.
6) a. 7) b. 8) ab. 9) a. 10) a.
11) a. 12) b. 13) a. 14) b. 15) a.
16) a. 17) a. 18) a. 19) a. 20) b.

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