

A specific application of locus of control of behaviour scale on patients with pelvic floor alteration

V. LEANZA, R. VECCHIO, S. VERDURA, L. CIOTTA, G. LEANZA, A. PASSANISI, F. GIAIMO

SUMMARY: A specific application of locus of control of behaviour scale on patients with pelvic floor alteration.

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Background. *Pelvic organ prolapse is a disorder with a worldwide spread. Aim of this paper was to investigate locus of control of behaviour in female patients before and after a session of rehabilitative behavioural therapy.*

Methods. *Locus of Control of Behaviour (LCB) scale was administered to 300 women suffering from pelvic organ prolapse before and after treatment. T-Student was run for statistical evaluation.*

Results. *A significant reduction in the LCB patients' score was found after treatment.*

Conclusions. *Results support the efficacy of rehabilitation-behavioural techniques in increasing patients' self-efficacy in their control over the prolapse symptoms.*

RIASSUNTO: Applicazione del locus of behaviour scale control in pazienti con alterazione del pavimento pelvico.

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Background. *Il prolasso degli organi pelvici è un disturbo con una vasta diffusione in tutto il mondo. Lo scopo del presente lavoro è stato quello di indagare il locus of control in pazienti di sesso femminile, prima e dopo alcune sedute di tecniche comportamentali per la riabilitazione del pavimento pelvico.*

Metodo. *Il questionario Locus of Control of Behaviour (LCB) è stato somministrato a 300 donne con prolasso degli organi pelvici, prima e dopo il trattamento riabilitativo. Il test t di Student è stato eseguito per la valutazione statistica.*

Risultati. *È stata riscontrata una riduzione significativa del LCB dopo il trattamento.*

Conclusioni. *I risultati supportano l'efficacia delle tecniche riabilitativo-comportamentali nell'aumentare l'auto-efficacia delle pazienti relativamente al controllo sui sintomi del prolasso.*

KEY WORDS: Pelvic organ prolapsed - Locus of control of behaviour - Quality of life.
Prolasso degli organi pelvici - Locus of control - Qualità di vita.

Introduction

Genital prolapse, also known as pelvic organ prolapse (POP), affects from 38 to 76% of the female western population (1). Patients suffer from bulging and associated urinary, bowel or sexual symptoms (2). Moreover, POP has been found to negatively affect women's perceived body image and femininity (3, 4). Women diagnosed with POP frequently suffer from

being stigmatized as the modified concept "ill woman" does not inherit all the properties of the head noun "woman" (5). Thus these women are considered to be "different". As a result they experience a low quality of life. Above all, women of reproductive age are physically and psychologically affected by POP as this factor can decrease the chances for conceptions, particularly if other critical conditions occur (6-9). Moreover, women with POP often report distress and feelings of shame. Shame is a negative and self-conscious emotion also caused, as other dysfunctional attitudes (i.e. insecure attachment and problematic internet use) (10, 11) and disadaptive personality traits (12), by the internalization of unworthy or abusing parents (13). Additionally, such feeling can lead to a decreased self-esteem and self-efficacy (14). Self-efficacy involves believing to be able to go through the

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steps necessary in order to produce a desired outcome. People with low self-efficacy in an area are less likely to believe that they can control the outcome of a situation. The beliefs about whether or not the person can control the outcome of a situation is called locus of control. Individuals who believe to have control over a situation have an internal locus of control, whereas people who believe that outside variables have more control over a situation than they do have an external locus of control. While some individuals accept responsibility for their own continued well-being (i.e. internal locus of control), thus maintaining therapy improvement, others, particularly those who do not accept this responsibility (i.e. external locus of control), may be at risk of relapse. Therefore, it is important to assess patients' locus of control behaviour during treatment in order to have a feedback on the therapy effectiveness.

Many options are available for the treatment of POP including pelvic floor muscle exercises (e.g. Kegel exercises), pessary, and surgery. As stress urinary incontinence is often associated with POP, minisling surgical procedures or the traditional transobturator vaginal tape technique may occasionally be performed (15, 16). Aim of the study was to verify, through the use of the Locus of Control of Behaviour (LCB) scale, changes in the control perceived over the symptoms by patients with POP treated with rehabilitative behavioural techniques.

Materials and method

A survey was carried out from November 2010 to November 2014 on a sample of 300 female patients, aged between 30 and 75 years, diagnosed with POP (second grade). Criteria of inclusion were:

- the objective and symptomatic POP;
- refusal of surgery;
- have completed n.10 rehabilitation sessions.

Criteria of exclusion were:

- the inability to fill the questionnaire;
- previous POP treatments;
- serious metabolic diseases.

The rehabilitation sessions consisted in physiochinesitherapy, biofeedback and functional electrical stimulation according to a standardized protocol. In addition, patients were instructed to perform 20 Kegel exercises at home two times per day until the achievement of conditioned reflex during and in anticipation of sudden increases in abdominal pressure (Figure 1).

Patients were administered the LCB scale before and after a treatment of 10 rehabilitation sessions.

LCB scale is a 17-item Likert-type instrument (Figure 2), developed by Craig, Franklin and Andrews (17), for the measurement of the person's ability to take responsibility for maintaining new or desired behaviours. The scores of the 17 items are summed to

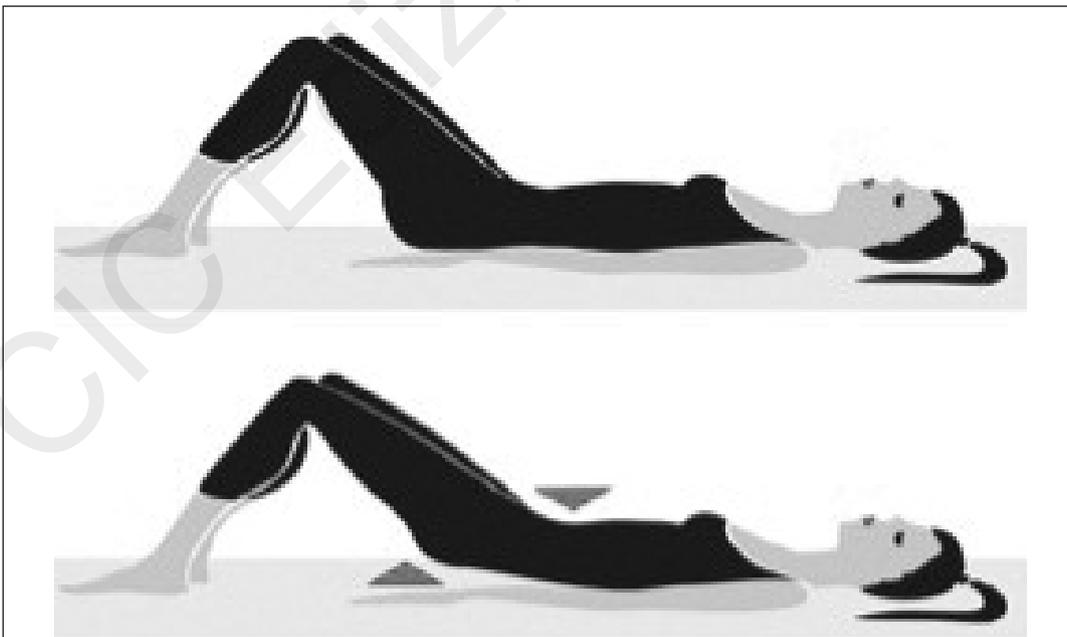


Figure 1 - Kegel exercises.

yield a total LCB score, with items 1, 5, 7, 8, 13, and 16 scored in reverse order. Higher scores on this scale indicate a perception of external locus of control, while lower scores indicate the perception of a greater internal locus of control.

Results

A statistically significant reduction in the LCB score was found after treatment (Table 1). Thus patients' perceptions of personal control over symptoms

Locus of Control of Behaviour Scale*

Directions: Below are a number of statements about how various topics affect your personal beliefs. There are no right or wrong answers. For every item there are a large number of people who agree or disagree. Could you please put in the appropriate space the choice you believe to be true?
Answer all the questions.

0	1	2	3	4	5
 Strongly disagree	 Generally disagree	 Somewhat disagree	 Somewhat agree	 Generally agree	 Strongly agree

1. I can anticipate difficulties and take action to avoid them
2. A great deal of what happens to me is probably just a matter of chance
3. Everyone knows that luck or chance determine one's future
4. I can control my problem(s) only if I have outside support
5. When I make plans, I am almost certain that I can make them work
6. My problem(s) will dominate me all my life
7. My mistakes and problems are my responsibility to deal with
8. Becoming a success is a matter of hard work, luck has little or nothing to do with it.
9. My life is controlled by outside actions and events.
10. People are victims of circumstance beyond their control.
11. To continually manage my problems I need professional help
12. When I am under stress, the tightness in my muscles is due to things outside my control.
13. I believe a person can really be a master of his fate.
14. It is impossible to control my irregular and fast breathing when I am having difficulties.
15. I understand why my problem(s) varies so much form one occasion to the next.
16. I am confident of being able to deal successfully with future problems.
17. In my case maintaining control over my problem(s) is due mostly to luck

Figure 2 - Locus of Control of Behaviour Scale.

TABLE 1 - DIFFERENCES IN LCB SCORE BETWEEN PRE-TREATMENT AND POST-TREATMENT.

	LCB Score	t Student	p (Pearson)
Test (pre-treatment)	27		
Retest (post-treatment)	19	23,60 (gr. lib. 777)	< 0.0001

increased from pre-treatment (pre-test) to post-treatment (post-test).

This study supports the efficacy of rehabilitation-behavioural techniques in increasing patients' self-efficacy in their control over the POP symptoms. The decreased external attributions are essential to the successful of the treatment and lead to an increased quality of life.

Discussion and conclusions

The results of our study suggest the importance to check, together with the most evident symptoms (overt symptoms), the most hidden (covert symptoms) ones experienced by patients suffering with POP, which lead to feelings of hopelessness, helplessness and powerlessness (18, 19). The symptoms of POP may adversely affect the lifestyle and self-confidence, when women are not able to manage themselves by controlling a symptom experienced as self-limiting.

The reduction of LCB score after treatment results in a psychological validation of the favourable effects of rehabilitation on POP symptoms. The reason for such a favourable perceptive outcome can be interpreted as an effect of the increased body awareness resulting from the use of the potential physical forces that remain undetected in most individuals. Women who performed perineal education and rehabilitation therapy feel more autonomous and manage in a better way the POP symptoms responding to them with a rational reflex. The application of LCB scale, which has had a wide spread in psychological diseases (20-24), has been applied to the broad field of POP for the first time (25-27).

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