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New Strategies for the Application of the Latest Information System on the Strengthening Pelvic Muscle for Treatment of Uterine Prolapse

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ABSTRACT

The research is to carry out new strategies for the application of advanced information system on the strengthening pelvic muscle for treatment of uterine prolapse. The data consisted of 142 women who visited the gynecology of a university hospital**.** After the survey, it was carried out by a one-on-one interview from February 5 through April 13, 2018. The pelvic reinforcement was measured by t-test. The continuation of immunity and muscle strength were compared to 7, 14, 21, 28, 35, and 42 days and prior to the application of the latest system. The results obtained are as follows. 1) The data has been shown that 52.4% of people who exercise regularly is significantly less than 46.0% of the comparative people(X^2=3.91, p<.05). 2) 47.9% of people who drank frequently were significantly higher than 28.2% of the comparative people(X^2= 4.26, p<.05). 3) The pelvic examination was significantly higher after the application than before the application of the latest system. 4) The kegel exercise had increased significantly since the application of the system than before the application of it(t=-3.84, p<.01). 5) Bending and stretching both legs were significantly higher after applying the system than before applying it**(**t=-1.65, p<.01). 6) Seven days later, the immunity of pelvic organ was improved rapidly in the investigation people than comparative people. 7) It has been shown that strengthening pelvic muscle has increased in the case population after application of it than before the information system was applied. But it has decreased somewhat since the 21 days in the test people than comparative people**.** The data has been shown to be effective in treating pelvic organ prolapse. lt is expected to contribute to the effect if the system applied to other organ prolapse.

Keywords: *Pelvis, Muscle, Treatment, Uterine, Prolapse*

Introduction

The uterine prolapse is the prolapse of part or all of the uterus through vagina. lt moves downward or upward from its normal position. According to prior research, pelvic organ prolapse is a disease in which the pelvic organ protrude from the lower part due to muscle weakness in the lower part of the pelvis[1]. According to previous paper, uterine prolapse is caused by poor support of the vagina, the adhesive part of the ligament that supports the uterus[2]. According to previous study, the weakening of the pelvic support structure may lead to the prolapse of the rectum, small intestine and bladder to the vaginal cavity[1-3].

The degree of prolapse and the association with pelvic symptoms are small[4]. Patients with pelvic organs are accompanied by symptoms related to urinary problems, the complain of incontinence, urinary obstruction. They cannot urinate due to narrowing or clogging of the urinary tract. Patients can complain of frequent urination more than eight times a day. The most common symptoms are the feeling and pressure of something extruded out of the vagina. If patients stand in the afternoon for a long time, they tend to get worse over time.

Three out of 10 women in their 40s or older who have had a baby have had pelvic organ prolapse[4,5]. The uterine prolapse is a high incidence in the majority of older people. lt is because in the past, the vaginal outlet was loosened due to renal failure or trauma of

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the peritoneum and perineum during delivery. In this condition, long-term operation of factors that increase abdominal pressure promotes uterine exudation. When the cervix is 2cm lower than the virgin membrane, it's called uterine prolapse. lt is classified as Class 0-4. The higher the grade, the worse the symptoms of prolpase. Zero degrees is a case of no uterine exudation One degree of ectopic hysterectomy is as low as the vagina. The uterus is 2 degrees and the cervix is down to the mouth of the vagina. 3 degrees of uterine exudation is about the cervix coming out of the vagina. Four degrees of ectopic hysterectomy is where the whole uterine body is lowered out of the vagina. It happens well when you do a lot of work or have a chronic cough. Also, heavy objects are often carried or heavily constipated. The cause is weakened tissue, such as muscles and ligaments, which support pelvic organs. Patients feel uncomfortable when they walk. Also patients often have to urinate and constipation. The quality of their life decreases due to pelvic organ prolapse[5-7]. Continued prolapse can lead to non-recovery or complications such as ulcers, bleeding, and rectal rupture. Expectancy management can be used for people who have tolerable symptoms or do not want surgery.

According to previous study, surgical treatment depends on the severity of the symptoms, the spread of the prolapse, and the doctor's proficiency[8,9]. The rate of recurrence or re-surgery after surgery is about 36 percent. The uterine prolapse is a difficult problem to solve due to aging[10]. lt causes damage to the uterus as well as related organs such as rectum and bladder. Surgery to resect the entire uterus, such as a hysterectomy, causes confusion in women's self-esteem and identity. Correct information is needed before and after surgery through proper research[9-11]. It is inconvenient to walk and live because of the exodus of the uterus, which lowers the quality of life. In addition to aging, pelvic and urethra muscles are prone to weakening due to increased female hormones or childbirth during pregnancy. Osteoporosis should strengthen damaged or weakened pelvic muscles. All diseases develop when the body's immune system decreases[11,12]. Prolapse of the uterus is a disease in which the organs protrude downward due to muscle weakness in the pelvic region with uterus, vagina, bladder and rectum. Therefore, encephalopathy requires muscle and immunity to be strengthened**.** To do this, we need to strengthen pelvic muscles by applying the information system. For the treatment of uterine prolapse, a new strategy should be implemented through the application of information system. Therefore, the paper is to analyze new strategies for the application of the latest information system on the strengthening pelvic muscle for treatment of uterine prolapse.

Survey Research

New Strategies of the Latest Technology: The paper reveals new strategies for the application of advanced technology on the strengthening pelvic muscle. Evaluation components of the advanced system for the treatment of uterine prolapse are as follows. 1) effectiveness : results of the system's attempts 2) reliability : evaluating the reliability of a system 3) Information : information for the treatment of uterine prolapse 4) Link : connectivity to other medical institutions 5) Velocity : speed during patient application of the system 6) Charge : cost used by information system 7) Others : problems, improvements in Figure 1. The treatment strategies for pelvic organ prolapse is presented as below in Figure 2.

Materials: The data consisted of 142 women who visited the gynecology of a university hospital in K area. Strategies for treating of pelvic organ prolapse indicate in Figure 1. After the survey, the data were carried out by a one-on-one interview from February 5 to April 13, 2018. This research was drawn from two parts.

Statistical Analysis: The characteristics of subjects were measured by using Chi-square test. The pelvic reinforcement was measured by t-test. In addition, the continuation of immunity and muscle strength were compared to 7, 14, 21, 28, 35, and 42 days and prior to the application of advanced system**.**

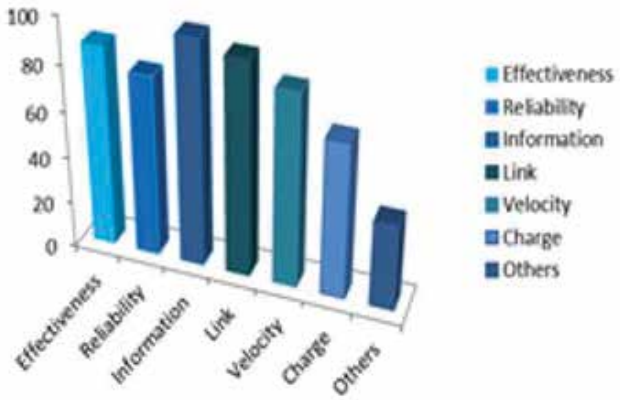


Figure 1: Evaluation Components of Advanced System for the Treatment of Uterine Prolapse

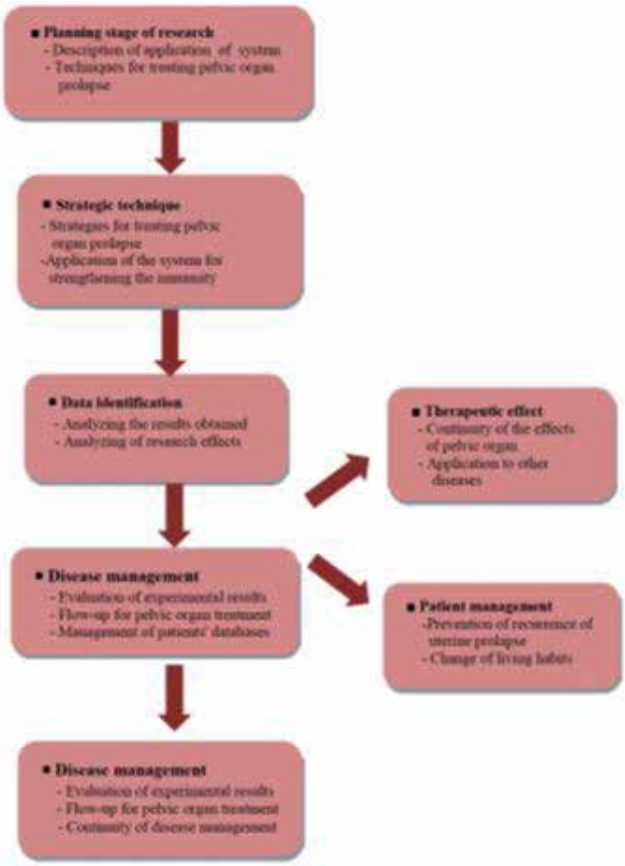


Figure 2: Information Characteristics of the Respondents

Results and Discussion

Information Characteristics of Subjects: Below indicates the information characteristics of subjects. The data has been shown that 52.4% of patients who exercise regularly is significantly less than 46.0% of the comparative people(X^2=3.91, p<.05). 47.9% of people who drank frequently were significantly higher than 28.2% of the comparative people(X^2 = 4.26, p<.05), Over 25kg/m^2 cases of obesity were higher than the controls in Table 1.

Table 1: Information Characteristics of Subjects

Variables	Experime-nt group	Control group	X^2
	N(%)	N(%)	
Regular exercise			
No	18(52.4)	26(46.0)	3.91*
Yes	53(47.6)	45(54.0)	

Conted…

Age/years			
<29	11(15.5)	14(19.7)	10.73
30-39	23(32.4)	12(16.9)	
40-49	29(40.8)	20(28.2)	
≥50	8(11.3)	25(35.2)	
Drinking			
Frequently	34(47.9)	20(28.2)	4.26*
Non-drinking	37(52.1)	51(71.8)	
Smoking			
Frequently	22(31.0)	17(23.9)	1.58*
Non-smoking	49(69.0)	54(76.1)	
Marriage status			
Single	23(32.4)	15(21.1)	6.93
Married	48(67.6)	56(78.9)	
BMI (kg/m²)			
<18.5	17(23.9)	19(26.8)	13.47
18.5-24.9	15(21.1)	17(23.9)	
≥25	39(54.9)	35(49.3)	
Total	71(100.0)	71(100.0)	12

*P<.05

Measures to Strengthen Pelvic Organs: Below is the indication of the measures to strengthen pelvic organ. The pelvic examination was significantly higher than the application of the advanced system in Table 2. The kegel exercise had increased significantly since the application of the latest system than before the application of it(t=-3.84, p<.01). Bending and stretching both legs were significantly higher after applying the information system than before applying it**(**t=-1.65, p<.01). The finding was similar with the previous studies on the ovary cancer[10-12]. l suggest that people with pelvic organ prolapse should be utilized in the latest system to prevent the recurrence of pelvic organ prolapse.

Table 2: Measures to Strengthen Pelvic Organs

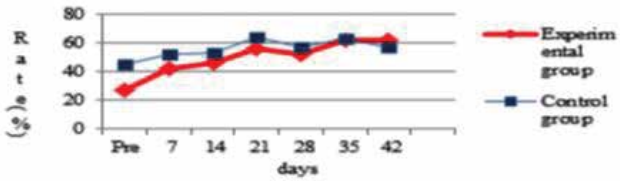
Variables	Before	After	t
	Mean ± S.D	Mean ± S.D	
Daily intake of vegetables and fruits	23.19 ± 3.56	38.67 ± 4.92	-5.26
Mental and physical stability	26.84 ± 0.39	31.85 ± 0.71	-2.45

Conted…

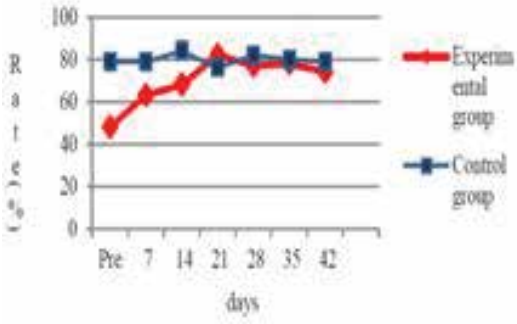
Regular aerobic exercise	19.62 ± 1.48	35.92 ± 3.15	-1.37**
Pelvic organ examination	12.57 ± 5.26	30.47 ± 4.24	-4.61**
Hand and foot pressure	16.36 ± 3.82	37.25 ± 3.21	-1.52
Kegel exercise	10.84 ± 1.59	32.73 ± 1.64	-3.84**
Appropriate weight control	24.69 ± 4.73	29.45 ± 3.76	-5.17*
Bending and stretching legs	14.57 ± 2.81	36.45 ± 2.93	-1.65**

* p<.05 ** p<.01

Persistence of immunity and muscle strength in the pelvis: Below is the indication of the persistence of immunity and muscle strength in the pelvis. Seven days later, the immunity of pelvic organ was improved rapidly in the test population than comparative people. It has been shown that strengthening pelvic muscle has increased in the case people after application of it than before the latest system was applied. But it has decreased somewhat since the 21 days in the test people than comparative people in Figure 3.



(a) Sustainability of the Immunity As Time Goes by



(b) Muscle Strength in Pelvis As Time Goes by

Figure 3: The Persistence of Immunity and Muscle Strength in the Pelvis

Conclusion

The research is to carry out new strategies for the application of advanced system on the strengthening pelvic muscle for treatment of uterine prolapse.

The results obtained are as follows. Firstly, the data has been shown that 52.4% of people who exercise regularly is significantly less than 46.0% of the comparative people(X^2=3.91, p<.05). Secondly, the pelvic examination was significantly higher after the application than before the application of the latest system. Thirdly, the kegel exercise had increased significantly since the application of the latest system than before the application of it(t=-3.84, p<.01). Fourthly, bending and stretching both legs were significantly higher after applying the system than before applying it(t=-1.65, p<.01). Fifthly, seven days later, the immunity of pelvic organ was improved rapidly in the investigation people than comparative people.

Therefore, the data has been shown to be effective in treating pelvic organ prolapse. lt is expected to contribute to the effect if the system applied to other organ prolapse.

Ethical Clearance: Not required

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Conflict of Interest: Nil

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