

## Effectiveness of instructional intervention upon multipara women's practices to control stress incontinence

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### المستخلص

**الهدف:** التعرف على فاعلية تداءل إرشادي على ممارسات النساء متعدّدات الولادة للسيطرة على سلس البول الضغطي.

**المنهجية:** أجريت دراسة شبه تجريبية للمُدّة من (٢) نيسان ٢٠١٠ ولغاية (١٥) حزيران ٢٠١٠. شملت العينة الغرضية (غير الاحتمالية) (٦٠) امرأة متعدّدات الولادة اختيرن من مستشفى بغداد التعليمي ومستشفى العلوية التعليمي للولادة في مدينة بغداد. قسمت العينة إلى مجموعتين (٣٠) امرأة اعتبرت كمجموعة تجريبية و(٣٠) أخرى اعتبرت كمجموعة ضابطة. تمّ تطبيق التداءل الإرشادي على عينة الدراسة بينما لم يطبق التداءل الإرشادي على المجموعة الضابطة. صممت استمارة استبيان كأداة لجمع البيانات تناسب الغرض من الدراسة كما أجريت دراسة استطلاعية لاختبار ثبات ومصداقية الاستمارة للمُدّة من ١٠ آذار ولغاية ٣٠ آذار ٢٠١٠. تمّ تحليل البيانات من خلال استعمال أسلوب تحليل البيانات الإحصائية الوصفية (التوزيع التكراري، النسبة المئوية، الوسط الحسابي للقيم) وأسلوب تحليل البيانات الإحصائي الاستنتاجي (اختبار R، ومربع كاي).

**النتائج:** أشارت نتائج الدراسة إلى أن المشاركات لمجموعة الدراسة استفدن من تنفيذ التداءل الإرشادي مع حدوث تغيير جوهري في ممارستهن في السيطرة على سلس البول الضغطي. استنتجت الدراسة إن أغلبية الأمهات قد تمّ تلبية احتياجاتهنّ على نحوٍ كافٍ للسيطرة على سلس البول الضغطي- تمارين عضلات الحوض والعجان (تمرينات الكيجل)، تغيير نمط الحياة.

**التوصيات:** أوصت الدراسة بإمكانية تقديم التداءل الإرشادي للسيطرة على سلس البول الضغطي لجميع الأمهات الحوامل متعدّدات الولادة اللواتي يراجعن مراكز الرعاية الصحية الأولية، فضلا عن ذلك تطبيق التداءل الإرشادي للأمهات متعدّدات الولادة في المستشفى لزيادة معلوماتهن عن سلس البول الضغطي. وكما أوصت الدراسة بدور الممرضة لتعليم الأمهات متعدّدات الولادة مبادئ السيطرة على سلس البول الضغطي، بينما تقوم ببعض الإجراءات لهنّ خلال مُدّة النفاس.

### Abstract

**Objective(s):** to determine the effectiveness of instruction intervention upon multipara women's practices to control stress incontinence.

**Methodology:** A quasi-experimental study was carried out from (2nd) April, 2010 to 15th June, 2010. Non-probability (purposive sample) of (60) multiparous women was selected from Baghdad Teaching Hospital and Al-Elwia Maternity Teaching Hospital in Baghdad city, the sample was divided into two groups (30) women were considered as a study group, and another (30) were considered as the control group. An instructional intervention was applied on the study group, while the intervention was not applied on control group. A questionnaire was resolve as a tool of data collection to suit the purpose of the study. A pilot study was carried out to test the reliability and validity of the questionnaire for the period from 10<sup>th</sup> of March. - 30 March. 2010. Data were analyzed through the application of descriptive statistical data analysis approach (frequency, percentage, mean of scores) and inferential statistical data analysis approach (correlation coefficient, and chi-square).

**Result:** The results of the study revealed that the study group participants had benefited from the implementation of instructional intervention and dramatic change had occurred in their practices to control stress urinary incontinence. The study concluded that the majority of mothers had adequately met their needs control stress urinary incontinence-pelvic floor and perineum muscles exercise, and lifestyle change.

**Recommendation:** The study recommended that the instructional intervention can be presented to all multipara pregnant mothers who are attending to the primary health care centers; moreover, an instructional intervention might be implemented in the hospital for multipara women to increase their knowledge about stress urinary incontinence. The study also recommended that the nurse must take the role for teaching multiparous women the principles of control SUI while they perform such procedure for them during postpartum period.

**Keywords:** instructional intervention, practices, stress incontinence, multipara women.

### Introduction:

Urinary incontinence (UI) is any involuntary leakage of urine, it is a common and distressing problem, which may have a profound impact on quality of life, often causes poor quality of life, social isolation and significant psychological distress in persons affected and their family and caregivers. Urinary incontinence almost always results from an underlying treatable medical condition but is under-reported to medical practitioner<sup>(1, 2, and 3)</sup>. It is a common problem among women, the estimated prevalence range from 3% to 40% depending on population studied and how the condition is defined. Approximately 10% to 30% of women between the ages of 15 and 65 years of age and 25% of women older than 65 experience urinary incontinence. Urinary incontinence is two to three time more likely in women than men<sup>(2, 4)</sup>. Childbirth and other events can injury the scaffolding that helps support the bladder in women. Pelvic floor muscles, the vagina, and ligaments support the bladder. If these structures weaken, the bladder can move downward, pushing slightly out of the bottom of the pelvis toward the vagina. This prevents muscles that ordinarily force the urethra shut from squeezing as tightly as they should. As a result, urine can leak into the urethra during moments of physical stress. Stress incontinence also occurs if the squeezing muscles weaken<sup>(5)</sup>.

### Methodology:

Aquazi-experimental design was carried out from (2nd) April, 2010 to (15<sup>th</sup>) June, 2010. throughout the present study upon multiparous women having stress incontinence with the application of a pre-post tests approach for the study group and control group in assessing their practices and the application of instructional intervention for the study group. Non-probability (purposive) sample consisted of (60) multiparous women's having stress incontinence selected

purposively from maternity unit, in recovery room four hours after delivery at AL- Elwia Maternity Teaching Hospital and Baghdad Teaching Hospital, the sample was divided into two groups (30) women considered as a study group, and another (30) women considered as the control group, the study group were exposed to an instructional intervention (one-to-one training), while the control were not exposed to the instructional intervention. The content validity was determined through panel of experts, they were asked to review it for content, clarity, relevancy, and adequacy. Reliability of questionnaire was determined through the use of test-retest approach with internal period for more than two weeks for determination of internal consistency of women's knowledge regarding urinary stress incontinence. The result of reliability present alpha correlation coefficient which was ( $r=0.82$ ). A questionnaire was constructed through literature review and previous studies, and the use of information which had emerged of prior to the assessment. The questionnaire was used as a mean of data collection. It was comprise of (3) main part. Part 1: Demographic Variables; which was comprise of women's age, body mass index, occupation, level of education, socio economic status, and residency. Part 2: Instructional Intervention. An instrument was constructed through the use of (3) levels likert scale for implementation of instructional intervention. The rating score of the instructional intervention was (3) for implemented, (2) for some times, and (1) for not implemented, with cut-off point =2. This instructional intervention was comprised of; pelvic muscles exercise (kegel exercise), and life style change. Part 3: Evaluation tool after application of instructional intervention; this part was concerned with assessment of urine flow stop, which were comprised of (6) items.

**Results:**

**Table 1.** Participants' socio-demographic characteristics

N.	Variable	Study group(n=30)		Control group(n=30)		X <sup>2</sup>	df	P-value	Sig.
		f	%	f	%				
1	Age (years)					3.66	5	0.60	NS.
	< 20	0	0.0	3	10.0				
	20 - 24	7	23.3	5	16.7				
	25-29	4	13.3	4	13.3				
	30-34	10	33.3	9	30.0				
	35-39	6	20.0	7	23.0				
40 ≥	3	10.0	2	6.7					
2	Educational level					9.38	5	0.95	NS.
	Read and write	1	3.3	2	6.7				
	Primary school graduate	9	30.0	17	56.7				
	Intermediate school graduate	9	30.0	7	23.3				
	Secondary school graduate	1	3.3	2	6.7				
	Institute	4	13.3	0	0.0				
College+	6	20.0	2	6.7					
3	Occupation					2.30	1	0.13	NS.
	Employed	6	20.0	2	6.7				
	Not employed	24	80.0	28	93.3				
4	Socio-economic status					9.99	2	0.00	S.
	Low	14	46.7	25	83.3				
	Moderate	12	40.0	5	16.7				
	High	4	13.3	0	0.0				
5	Body mass index (BMI) /kg					9.58	4	0.04	S.
	Normal weight (18.5-24.9)	6	20.0	13	43.3				
	Over weight (25-29.9)	10	33.3	13	43.3				
	Obese (30-34.9)	8	26.7	3	10.0				
	Severely obese (35-39.9)	4	13.3	0	0.0				
Morbid obese (40 and more)	2	6.7	1	3.3					
6	Residency					0.16	1	0.69	NS.
	Urban	26	86.7	27	90.0				
	Rural	4	13.3	3	10.0				

n=number, X<sup>2</sup>=chi-square, df= degree of freedom, sig = significant

This table demonstrates the highest percentage of both groups (study and control) (33.3%) (30%) respectively were in age group of (30-34) years, (30%) (56.7%) primary school graduate, (80%) (93.3%) were not employed, (46.7%) (83.8%) were of low socio-economic status, (33.3%) (43.3%) were overweight, (86.7%)

(90%) live in urban area. No significant statistical differences between study and control groups in socio-demographic characteristic regarding age, educational level, occupation, residency, while there are significant differences in socio-economic status and body mass index.

## Instructional interventions, multipara women's practices and urinary incontinence

**Table 2.** Distribution of Women's Interventional Instruction Implementation to Control Stress Urinary Incontinence for both (study and control) Groups

List	Items	Study group			MS.	Control group			MS.	X <sup>2</sup>	D.f	P-Value
		Implemented	Sometime implemented	Not implemented		Implemented	Sometime implemented	Not implemented				
A	Pelvic muscle and perineum exercise (kegel exercise)											
1	Implemented 3 times per day, at the morning, evening and night	23	7	0	2.76	0	0	30	1.00	60.0	2	0.00
2	Determined the correct muscle (pelvic floor muscle) by voluntary stop of urine in midstream of urination	25	5	0	2.83	0	0	30	1.00	60.0	2	0.00
3	Prefer performance the exercise in the beginning from sleep back position with open the legs then gradually to perform during sitting and standing	23	7	0	2.76	0	0	30	1.00	60.0	2	0.00
4	Practicing the exercise after emptying bladder											
4.1	Tightening muscles of urine stream as try to prevent urine flow for 5 second	27	3	0	2.90	0	0	30	1.00	60.0	2	0.00
4.2	Relax for 5 second	27	3	0	2.90	0	0	30	1.00	60.0	2	0.00
4.3	Repeated the procedure 10 times	27	3	0	2.90	0	0	30	1.00	60.0	2	0.00
4.4	Work at tighten and relax the muscles as possible rapidly from 10-15 times	27	3	0	2.90	0	0	30	1.00	60.0	2	0.00
5	Practicing exercise during urination											
5.1	Stop flow of urine during urination for 5 second	27	3	0	2.90	0	0	30	1.00	60.0	2	0.00
5.2	Continuous flow of urine then stop it, and flow it again	27	3	0	2.90	0	0	30	1.00	60.0	2	0.00
5.3	Repeat it many time	26	4	0	2.86	0	0	30	1.00	60.0	2	0.00
6	Practicing exercise daily without interruption	22	8	0	2.73	0	0	30	1.00	60.0	2	0.00

Table 2. (Continued)

List	Items	Study group			MS.	Control group			MS.	X <sup>2</sup>	D.f	P-Value
		Implemented	Sometime implemented	Not implemented		Implemented	Sometime implemented	Not implemented				
7	Practicing exercise at any time and place such as watching T.V, during cooking and in standing, sitting and lying position	24	5	1	2.76	0	0	30	1.00	56.13	2	0.00
1	Reduce weight	14	17	6	2.26	1	3	26	1.16	27.54	2	0.00
2	Avoidance of smoking and drinking	30	0	0	3.00	30	0	0	3.00	-	2	-
3	Reduce intake of sedative and narcotic drug	27	2	1	2.80	1	2	27	1.13	48.29	2	0.00
4	Reduce drink of tea, coffee and food that irritate the bladder	23	6	1	2.73	1	4	25	1.20	42.72	2	0.00
5	Don't lifting heavy thing	26	4	0	2.86	3	0	27	1.20	49.24	2	0.00
6	Reduce drink of water	20	9	1	2.63	1	1	28	1.10	48.73	2	0.00
7	Regular bladder emptying	22	6	2	2.66	0	0	30	3.00	52.50	2	0.00
8	Changing body activity such as jumping that causes more flow of urine	29	1	0	2.96	4	2	24	1.33	43.27	2	0.00
9	Regular bowel emptying	23	7	0	2.76	0	0	30	1.00	60.00	2	0.00
10	Intake food that contain fiber to avoid constipation	27	2	1	2.80	0	0	30	1.00	56.13	2	0.00
11	Avoid sitting in squatting position or standing for long hours	23	6	1	2.73	2	1	27	1.16	45.35	2	0.00

Cut-off-point =2; df= degree of freedom; N=number; P-Value= Level of probability at  $p \leq 0.005$ ; sig = significant; X<sup>2</sup>=chi-square

Table (2) indicates significant statistical differences between (study and control) groups with high mean score of items for study group concerning women's interventional instruction implementation to control stress urinary incontinence.

**Table 3.** Distribution of Women's Prognosis Evaluation for Stress Urinary Incontinence for both (study and control) Groups after six weeks period of instructional intervention implement for study group.

List	Variable	Study group(n=30)		Control group(n=30)		$\chi^2$	df	P-value	Sig.
		f	%	f	%				
1	During laugh					12.00	2	0.00	S.
	Yes	30	100.0	20	66.7				
	Some times	0	0.0	2	6.7				
	No	0	0.0	8	26.7				
2	During cough					42.61	2	0.00	S.
	Yes	29	96.7	4	13.3				
	Some times	1	3.3	5	16.7				
	No	0	0.0	21	70.0				
3	During sneeze					33.60	2	0.00	S.
	Yes	28	93.3	7	23.3				
	Some times	2	6.7	2	6.7				
	No	0	0.0	21	70.0				
4	During lifting heavy thing					9.23	2	0.00	S.
	Yes	30	100.0	22	73.3				
	Some times	0	0.0	0	0.0				
	No	0	0.0	8	26.7				
5	During exercise					12.00	2	0.00	S.
	Yes	30	100.0	20	66.7				
	Some times	0	0.0	0	0.0				
	No	0	0.0	10	33.3				
6	During home activities					13.47	2	0.00	S.
	Yes	30	100.0	19	63.3				
	Some times	0	0.0	2	6.7				
	No	0	0.0	9	30.0				

df= degree of freedom; sig = significance;  $\chi^2$ =chi-square

This table shows that (100%) (66.7%) of both groups study and control respectively having prognosis during laugh, (96.7%) (13.3%) during cough, (93.3%) (23.3%) during sneeze, (100%) (73.3%) during lifting heavy thing, (100%) (66.7%) during exercise, (100%) (63.3%) during home

activities, (10%) (3.3%) their visiting the doctor during puerperium to treat SUI. There are significant statistical differences between study and control groups regarding prognosis assessment for stress urinary incontinence.

**Table 4.** Relationship between Study and Control Groups Regarding Stress Urinary Incontinence Improvement.

List	Variable	Improved		Not improved		$\chi^2$	df	P-value
		f	%	f	%			
1	Study	28	93.3	2	6.7	52.5	1	0.00
2	Control	0	0.0	30	100.0			

df= degree of freedom; sig = significance;  $\chi^2$ =chi-square

This table presents significant statistical differences between stress urinary incontinence improvement for both (study and control) groups.

**Discussion:**

Analysis of demographic characteristic indicated that most of the studied multiparaous women were aged 30-34 years old for both groups, and housewife with low educational level (primary and intermediate school graduates) and live in urban area (table1). Educational level reflect their health awareness somewhat was low and they have difficult in the most important information which they need during their life cycle, due to lack in regarding and ignorance in seeking medical treatment, only in severely complicated causes and they were predisposed to incontinence, due to lack of care, and also due to their engagement in most of households, lifting heavy things, long standing while doing their works, and wrong sitting especially at cleaning or washing things. Most of multipara women for both groups with low socioeconomic status and overweight. These results due to lack of money to spend on their health complication, and from their point of view it is better to spend their money on their house needs rather than spend it on physicians, or they believes that their condition either due to their age, or untreatable, or due to embarrassment of it. Handa and others found in their studies no relationship between the risk of urinary incontinence and age, other studies found that SUI was the most prevalence among adult women <sup>(6)</sup>. Fuitz & Herzog; Samuelson and others mentioned that impact caused by incontinence in women, is not limited to its physical aspect, it negatively affects the sexual, social, domestic and occupational level of women life <sup>(7, 8)</sup>. Waetjen and others reported in observational studies that obesity is a strong risk factor for urinary incontinence which is in agreement with the current study <sup>(9)</sup>. Payal and others concluded in their study there are many factors that contribute to the development pelvic organ prolapse and stress urinary incontinence such as age, parity, occupation <sup>(10)</sup>. Subak and others conducted a small cohort study of overweight and obese women with urinary incontinence, those who had a weight loss of more than 5% had a reduction of at least 50% in

the frequency of urinary incontinence ( $P= 0.03$ )<sup>(11)</sup>. Women's Interventional Instruction Implement to Control on Stress Urinary Incontinence for both (study and control) Groups: The study depicts significant statistical differences between study and control groups with high mean score of items for study group concerning women's interventional instruction implementation to control stress urinary incontinence (table2.). Wilson and others stated that pelvic floor muscle exercises have been recommended in the initial conservation management of stress urinary incontinence <sup>(12)</sup>. The National Institute for Health and Clinical Excellence established urinary incontinence guidelines state a trail of supervised pelvic floor muscle training at least three month duration should be offered as first line treatment to women with stress or mixed incontinence <sup>(13)</sup>. Jozwik, conducted a study to determine the impact of pelvic muscle exercise on the occurrence and the role in the treatment of SUI in the perinatal period. Our analysis indicates that PFM exercises are safe and highly effective measure in the prevention of occurrence and treatment of SUI, both in antepartum and postpartum <sup>(14)</sup>. Leslee and others conducted randomized, clinical trial program to reduce incontinence by diet and exercise to determine whether a behavior weight reduction intervention for overweight and obese women with incontinence would result in greater reduction in the frequency of incontinence episodes at 6 months as compare with a control group<sup>(15)</sup> Women's Prognosis Evaluation for Stress Urinary Incontinence for both (study& control) Groups after six weeks period of instructional intervention implement for study group: the study indicated that there was a significant statistical difference between study and control groups regarding prognosis assessment for stress urinary (table3). Jocoy and others stated that pelvic floor muscles exercise (kegel exercise) help (50%) of women to decrease the occurrence of stress urinary incontinence, these exercises which strength the pelvic muscle <sup>(16)</sup>. Lapitan found in their study intensive antenatal PFMT effectively

prevented the occurrence of urinary incontinence in late pregnancy and early postpartum period until six months postpartum<sup>(17)</sup>. Relationship between Study and Control Groups Regarding Stress Urinary Incontinence Improvement (table 4). This table presented significant statistical differences between stress urinary incontinence improvement for both (study and control) groups. Chi-square was done to examine the effect of independent variable (instructional intervention) on dependent variable (stress urinary incontinence improvement), it was found that most women who received instructional intervention (kegel exercise, and life style change) were improved (in study group), while the women who did not receive the instructional intervention were not improved (in control group). This indicated that the program was effective. Burns and others reported that (16%) of women receiving PFM exercise training were cured and that (44%) reported, (50% to 99%) improvement

### Recommendations:

1. Establishing programs for nurses to increase their information about prevention and control SUI.
2. Booklet of the instructional program should be published and distributed to all mothers having stress urinary incontinence to control it.
3. A strategies program to apply in all maternity hospitals.

### References:

1. National Prescribing Service. *Managing urinary incontinence*. <http://www.Nps.Org.Au/health-professionals/puplication/nps-news/current/nps-news-66-managing-urinary-incontinence-in-primary-care>.
2. Hunskar, S., Burgio, K. and Diokno, A. Epidemiology and natural history of urinary incontinence in women. *Urology* 2003; 62 (4): 16-23.

in symptoms<sup>(18)</sup>. In a study carried out by Bo and others (56%) of women who received PFM exercise training perceived their condition as unproblematic after treatment compared with only (3%) of controls<sup>(19)</sup>. Henalla and others reported that (65%) of women who received PFM exercise training had at least a (50%) reduction in urine loss on a pad test compared with no reduction in urine loss for the control group<sup>(20)</sup>. The study concluded that all mothers in study group have developed better practices in all aspects after implementation of the instructional intervention. Most mothers in instructional intervention have adequately performed kegel exercise and change life style for them. There is a difference between study and control groups regarding stress urinary incontinence improvement. In assessing prognosis of stress urinary incontinence for multipara women, it is found that most of them having prognosis during laugh, cough, sneeze, during exercise, and during house work for study group.

3. Grodstein, F., Fretts, R. and Lifford, K. Association of age, race, and obstetric history with urinary symptoms among women in the Nurses' Health Study. *Am J Obstet Gynecol* 2003; 189: 428-434.
4. Scott, J., Gibbs, R. and Karlan, B. Haney A. *Danforth's obstetrics and gynecology*. 9<sup>th</sup> ed. Lippincott Williams and Wilkins, Philadelphia; 2003. p849.
5. Goode, Patricia, S. Burgio L. Locher L. Effect of Behavioral Training with or Without Pelvic Floor Electrical Stimulation on Stress Incontinence in Women: A Randomized Controlled Trial. *JAMA* 2003; 290 (3): 345-352.
6. Handa, V., Harvey, L., Fox, H. and Kjeruiff K. Parity and route of delivery: Does cesarean delivery reduce bladder symptoms later in life? *AMJ Obstet Gynecol*. 2004; 191: 463-9.



7. Fultz, N. and Herzog, A. Self- report social and emotional impact of urinary incontinence. *J Am Geriatr soc* 2001; 49: 892-9.
8. Samuelson, A., Victor, A. and Tibblin G. A population study of urinary incontinence and nocturia among women age 20-59 years. Prevalence, wellbeing and wish for treatment. *Act Obstet Gynecol Scand* 1997; 76: 74- 80.
9. Waetjen, L., Liao, S. and Johnson, W. Factors associated with prevalence and incident urinary incontinence in a cohort of midlife women: A longitudinal analysis of data: study of women health across the nation. *AMJ Epidemiol* 2007; 165: 309-18.
10. Payal, D., Kaytan, V. and Gopal, H. Pelvic organ prolapse and stress urinary incontinence: A review of a etiological factors. *Indian J Urol* 2007; Apr-Jun; 23(2); 135-141.
11. Subak, L., Johnson, C., Whitcomb, E., Boban, D., Sexton, J. and Brown, J. Pelvic floor dysfuct: Dose weight loss improve incontinence in moderately obese women? *Int urogynecol J* 2002; 13: 40-3.
12. Wilson, P., Bo, K. and Hay-Smith. *Conservative treatment in women: Second international consultation on incontinence*. Plymouth. United kingdom. Last updated 2002. p 573-624.
13. National Institute for Health and Clinical Excellence. *Urinary incontinence: The management of urinary incontinence in women*. London, England. 2006.
14. Jozwick, M. The effect of pelvic floor exercise in the ante partum and postpartum periods on occurrence of stress urinary incontinence: Implication for health care provision. *Gynecol pol.* 2001; 72(9): 681-7.
15. Leslee, L., Subak, L. and Wing, R. Weight loss to treat urinary incontinence in over weight and obese women. *N Engl J. Med* 2009 Jan: 360: 481-90.
16. Jocoy, S., Thompson, G. and Seifert, A. Urinary incontinence in women. <http://www.webmd.com/urinary-incontinence.../women's.../urinary-incontinence-in-women-treatment-overview> (accessed 17 Sep.2008).
17. Lapitan, M. Pelvic floor muscle training for prevention and treatment of urinary and fecal incontinence in antenatal and postnatal women. World Health Organization (WHO) reproductive health library Last updated 1 April 2009.
18. Burns, P., Pranikoff, K. and Nochajski, T. A comparison of effectiveness of biofeedback and pelvic muscle exercise treatment of stress incontinence in older community-dwelling women. *J Gerontol* 1993; 48: M167-M174.
19. Bo, K., Talseth, T. and Holm, I. Single blind, randomized controlled trial of pelvic floor exercises, electrical stimulation, vaginal cones, and no treatment in the management of genuine stress incontinence in women. *BMJ* 1999; 318: 487-493.
20. Henalla, S., Hutchins, C. and Robinson, P. Non-operative methods in the treatment of female genuine stress incontinence of urine. *J Obstet Gynecol* 1989; 9: 222-225.