

Awareness of Doctors Regarding the Role of Physiotherapy in the Management of Stress Incontinence

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ABSTRACT

Background: Urinary Incontinence is a worldwide problem that remains a highly prevalent cross-cultural and costly condition affecting millions regardless of age and gender. Physiotherapy is among the recommended treatment options for the management of stress incontinence.

Objectives: To assess the awareness among doctors regarding the role of physiotherapy in stress incontinence management

Methods: A cross-sectional study was done among gynecologists, nephrologists and urologists selected from public and private hospitals of Karachi through non-probability convenient sampling; total sample size of the study was 100. Data was entered and analyzed using SPSS version 17. Chi square test was used to find association for qualitative variables and p value <0.05 was considered as significant.

Results: Awareness regarding role of physiotherapy management in stress incontinence was found among 79% doctors. Urinary tract infection (55%), Post partum (45%) and post surgical (45%) were considered by doctors as the most common causes of stress incontinence. Preferable choice of management for stress incontinence was physiotherapy by 75% doctors. Regarding referral of patients with stress incontinence for physiotherapy 47% of the doctors referred their patients depending on patient condition and about 25% of the doctors were of the opinion that their patients recovered completely.

Conclusion: The study showed that there was awareness among doctors about the role of physiotherapy in management of stress incontinence and most of them referred their patients for physiotherapy.

KEY WORDS: Awareness, Stress Incontinence, Physiotherapy, Gynecologist, Urologist, Nephrologists.

INTRODUCTION

Urinary incontinence is defined by the International Continence Society as "the complaint of any involuntary leakage of urine".^{1, 2} The International Continence Society further categorizes types of incontinence and other bladder symptoms that include but are not limited to stress urinary incontinence, urge urinary incontinence, detrusor over activity and idiopathic. Urinary Incontinence is a worldwide problem that remains a highly prevalent cross-cultural and costly condition affecting millions regardless of age and gender.³ The associated risk factors are numerous and the impact on

the quality of life is substantial. Only a minority of patients seek help for their condition.

Stress urinary incontinence is the complaint of involuntary leakage of urine that occurs during activities that exert pressure on the bladder such as coughing or sneezing. Also known as effort incontinence, it's a quality of life disease and is the most common form of urinary incontinence.⁴ It is an under diagnosed and underreported problem that increases with age.⁵

Stress incontinence, especially in women, is often caused by physical changes to the body. Things that can cause these changes include pregnancy and childbirth, menstruation, menopause, surgery, bladder wall problems and weakened pelvic muscles.³

The prevalence of urinary incontinence in women of all ages is twice than that for men with majority of them having symptoms of stress incontinence. Large studies have indicated that there is a 3% to 11% overall prevalence rate of incontinence in the male population.⁶ Stress incontinence in men is rare unless the patient has undergone some type of prostate surgery or has suffered neurological injury or trauma. Isolated stress

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incontinence accounts for less than 10% of incontinence in male patients.⁶

The peak incidence of stress incontinence occurs between 45 and 49 years of age. Approximately 25% of pre menopausal women and 40% of postmenopausal women report dribbling of urine. Symptoms of stress incontinence may develop in approximately one third of women during their pregnancy, although incontinence frequently resolves after delivery. One of the research report suggested that females having persistent stress incontinence three months postpartum, 92% continued to have stress incontinence at 5 years postpartum. Recognized risk factors for stress incontinence include white race, obesity, pre and post partum, particularly after normal vaginal delivery. In an international study Graham and colleagues noted that among women presenting for incontinence treatment, stress incontinence was diagnosed more frequently in Caucasian women.⁷ Obese women (BMI>30) have twice the risk of incontinence than lean women.⁸

The treatment modalities for female stress incontinence include physiotherapy, drug therapy, surgical treatment, and the use of adsorbents and devices. In general physiotherapy is selected first for mild to moderate cases.⁹ The efficacy of drug therapy for stress incontinence has not been evaluated in a randomized controlled trial, such that drug therapy is currently positioned as a supplemental treatment. Surgical treatment is used in moderate to severe cases. The use of adsorbents and devices are reasonable treatments for female stress incontinence in the short term but are not ideal in the long term.^{9,23}

Research have shown a success rate of 80% after physical therapy treatment for stress incontinence.²⁵ A study conducted by Patricia Neumann, concluded that an effective program of pelvic floor strengthening exercises increase the strength of the muscles of pelvic floor. According to Neumann, in some cases as little as two minutes of exercises two or three times a day for four to six months, is sufficient.^{24,25}

Physiotherapy can play an important role in management of stress incontinence. The aim of this study is to find out the awareness among doctors regarding the role of physiotherapy in management of stress incontinence. The results of this study will help health professionals in utilizing combination treatment of medication and exercises so that they can treat the problem up to an optimum level.

METHODOLOGY

The total sample size was n=100, among which 77% were females and 23% were males. Of the total number

of doctors who responded to the questionnaire 72% were Gynecologists, 18% were Urologist and remaining 10% were Nephrologists. Majority of the doctors were from public sector hospitals 70% while rests of them 30% were from private sector hospitals. Around 36% doctors treated an average of 5 patients daily in their OPDs, who suffer from stress incontinence, while 20% treated 6 to 15 patients daily and 24% treated more than 15 patients daily.

The age group that was more prevalent to stress incontinence was 31-50 years as approximately 52% patients are from this age group with rest of the patients age above 50 years (41%). Among the major causes of Stress Incontinence, Urinary tract infection (55%), Post Partum (45%), Post Surgical (45%) and Post Stroke (10%) were most significant (Figure 1).

It was found that 79% of the consultants were aware about the role of Physiotherapy in management of stress incontinence whereas 21% were unaware. When inquired about the options available for managing stress incontinence, 75% of the Consultants were in favor of physiotherapy, with 64% favoring medicine and remaining 45% were opting for surgical management. (Figure 2). When the doctors were inquired whether they themselves advised exercise to their patients without concerning physiotherapy department, the responses provided that 34% of the doctors did so mostly. However 31% rarely did so and 35% never advised their patients on their own. Regarding how often doctors referred patients for physiotherapy, it was found that 47% referred patients depending on their condition, 29% did so randomly with 12% usually referring their patients, and 12% of the doctors never referring patients for physiotherapy. Of the total sample, 80% did not have any leaflet regarding stress incontinence.

Association of different specialty with various factors like awareness, management and referral was analyzed. It was found that out of 79% Consultants who were aware about physiotherapy 56% were gynecologists, 15% were urologist and 8% were nephrologists. Regarding the management options for stress incontinence, gynecologists (56%) and nephrologists (8%) mostly used physiotherapy while urologists (11%) preferred all options like physiotherapy, medicine and surgery. About referral of patients for physiotherapy, gynecologists and nephrologists referred their patients for physiotherapy depending on patient's condition 35% and 6% respectively. Urologist referred 6% patients randomly and other 6% referrals were depending on patients' condition (Table 1).

Association of different hospitals with various factors was also analyzed. Among public and private hospitals included in study, 52% from Government Hospitals and

27% from Private Hospitals were aware about the role of physiotherapy in management of stress incontinence. Regarding the management options which were used by doctors in government and private hospitals, physiotherapy was mostly used by doctors in both government (50%) and private (25%) hospitals. In government hospitals 44% of the doctors preferred Medicine and 36% preferred surgery while in public hospitals medicine and surgery options were used by 20% and 10% of the doctors respectively. Concerning patient's referral for physiotherapy, 33% doctors from government hospitals, and 14% from public hospitals referred patients depending on patient's condition. On other hand referral to patients on a random and usual basis was 17% & 12% in government hospitals and 8% & 4% at private hospitals respectively (Table 2).

At the end of the study participants were also inquired about the recovery of patients and responses highlighted that 73% doctors indicated partial recovery of the patients with 25% depicting cases of complete recovery. Of these only 2% responded that there was no recovery

RESULTS

Figure 1. Major Causes of Stress Incontinence

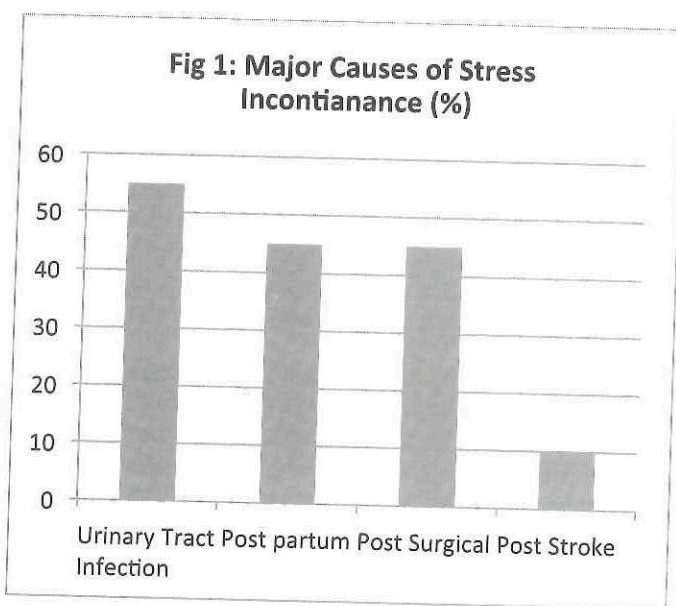


Table 1: Association of Awareness, Management and Referral for Physiotherapy among different Clinical Specialties

Specialty	G (%)	U (%)	N (%)	Total	P-value
Awareness	56	15	8	79	0.872
Management					
Medicine	48	11	5	64	0.566
Physiotherapy	56	11	8	75	0.32
Surgery	31	11	4	46	0.359

Refer for Physiotherapy	G	U	N	Total	P-value
Usually	8	3	1	12	0.861
Randomly	22	6	1	29	
Depending on patient condition	35	6	6	47	
Never	7	3	2	12	

Key: G = Gynecologists, U = Urologists, N = Nephrologists

Figure 2. Management of Stress Incontinence Patients

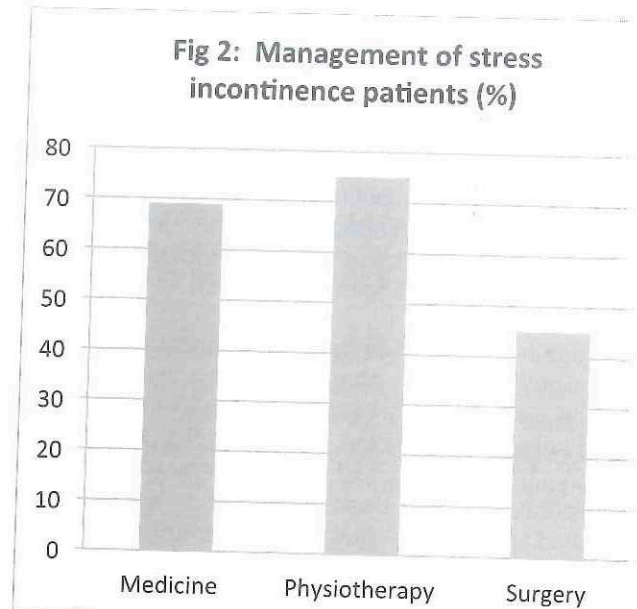


Table 2: Association of Awareness, Management and Referral for Physiotherapy among Government and Private Hospitals

Hospital Setting	Government Hospitals (%)	Private Hospitals (%)	Total (%)	P-value
Awareness	52	27	79	0.077
Management				
Medicine	44	20	64	0.716
Physiotherapy	50	25	75	0.208
Surgery	36	10	46	0.096
Refer for Physiotherapy				
Usually	8	4	12	0.072
Randomly	17	12	29	
Depending on patient condition	33	14	47	
Never	12	0	12	

DISCUSSION

Awareness of doctors regarding the role of physiotherapy in management of stress incontinence was assessed in this study. A thorough literature search did not reveal any article related to the topic either on a

local level or an international level. Our research revealed that 79% of all the doctors were aware about role of physiotherapy in management of stress incontinence and among them gynecologists were more aware than urologists and nephrologists.

Study done by Najomi M et al, mentioned old age, high parity, pelvic trauma, chronic illness (diabetics and stroke) and gynecologic and other pelvic surgeries were the major causes of incontinence.²⁶ Another similar study by Kepenekci I, also found that aging was a major factor in developing incontinence along with high parity and vaginal deliveries.²⁷ In relation to these studies in our research revealed that an important cause, stated by majority of the doctors, was urinary tract infections while aging was not reported as major cause. Post surgical and post partum identified in our research as important causes were similar as in rest of the studies. Nakayama H in his study highlighted stroke as one of the important cause of stress incontinence which was reported by only 10% doctors in our study.²⁸

When it came to the choice of management for stress incontinence, physiotherapy was selected as the choice by majority of the doctors. Medical and surgical treatments were also selected but physiotherapy was the mostly opted option. Various researches also supported this option as the treatment of choice.²⁹⁻³² A study done in Australia by Neuman PB provided evidence to support international recommendation for physiotherapy implemented as a first-line treatment before consideration of surgery. Similarly relating to hospital setup, physiotherapy was the first choice of management in both government and private hospitals.

Regarding referral for physiotherapy, our study revealed that only a small proportion of doctors never referred their patients for physiotherapy. On the other hand approximately half of the doctors surveyed, referred their patient for physiotherapy depending upon the patient condition. This finding was same for doctors from different specialties and hospital setting. Berghmans LCM et al, in guidelines for physiotherapy management of genuine stress incontinence strongly recommend physiotherapy referral for patients with urinary incontinence. In this guideline emphasis was given to proper diagnosis before referral of patient for physiotherapy.³³

At the end of the study doctors were inquired about the recovery of patients after physiotherapy and it was found that a good proportion of doctors were of opinion that patients fully recovered post physiotherapy while majority provided that the recovery was partial. Various studies also showed significant improvement in stress incontinence after physiotherapy management.^{34,35} Although surgical treatment cures the incontinence

permanently, but they carry high risks associated to post surgical complications like urinary retention, gastrointestinal complications, vascular and neurology & peri-ogenitourgenital complications.³⁶

This study highlighted and explained some important aspects relating to the role of physiotherapy in stress incontinence management. The limitations of the study is that during the process of research as sample size was small and sample was taken from convenient hospitals. So it is recommended to conduct such type of study covering large sample size representing doctors from various hospitals of Karachi.

Findings of this research may help doctors in planning and referral of patients with stress incontinence for physiotherapy. On the other hand results will also be helpful for patients as it will improve their quality of life. Improvement in quality of life was also reported in other researches.³⁷

CONCLUSION

This research showed considerable awareness among doctors from different specialties and hospital settings regarding the role of physiotherapy in management of stress incontinence. Urinary tract infections, post partum and post surgical causes were identified as major causes of stress incontinence. Physiotherapy was considered the most used management strategy for resolving incontinence

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