

## Referral to physiotherapy intervention for women with urinary incontinence: Unravelling the potential

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### Abstract

**Purpose and Relevance:** Urinary incontinence is a common but under reported health condition, especially among women across the world. Data from various studies among Indian women suggest prevalence between 19% and 46%. International consultation on Incontinence (2018) recommends physiotherapy interventions as one of the first line of management. Data from an 800 bed tertiary care medical college hospital suggest limited utilisation of physiotherapy services for incontinence (one referral/month). Multiple barriers exist and needs a unified health systems approach to improve access to care. The present study, using hospital outpatient data, aimed to determine the potential for referrals to physiotherapy for management of urinary incontinence.

**Participants:** Women above the age of 18 years and visiting any of the OPDs of the hospital were considered eligible to be included in the analysis.

**Materials and Methods:** Using a retrospective design, the study analysed hospital out-patient statistics for a three-month period. After due administrative permission, details of adult women visiting the OPDs were obtained from the hospital IT department and categorised as per all department; high potential department (Urology & OBG); and Physiotherapy. Using national prevalence studies, potential burden of urinary incontinence among the women visiting the OPDs was estimated and a projection for potential for referral was made.

**Results:** During the three-month period, a total of 26546, 5371 and 271 adult women (36±21 years) visited OPDs of all departments, high potential departments and physiotherapy department respectively. If there existed a clinical care pathway to screen for urinary incontinence among all adult women visiting the hospital; even at a conservative estimate of 25% prevalence and screening of 50% women, about 5309, 1074 and 54 women from all departments, high potential departments and physiotherapy department respectively could have been identified to have had incontinence.

**Conclusion:** There is an extensive gap between potential for referrals and current practice. Creating awareness among the key stake holders is recommended.

**Implications:** There is a strong need for developing and implementing appropriate clinical care pathways to improve access to physiotherapy services for incontinence.

**Keywords:** Clinical care Pathways, Urinary incontinence, Pelvic floor muscle training, Healthcare access, Barriers.

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### Introduction

Urinary Incontinence (UI) as defined by International Continence Society (ICS) is 'the complaint of any involuntary loss of urine'.<sup>1</sup> Bladder problems affect more than two hundred million people worldwide according to the World Health Organisation.<sup>2</sup> UI is a very debilitating condition, affecting quality of life of millions of women worldwide. The estimated worldwide prevalence of urinary incontinence among men varies from 11% to 21%, while in women UI affects 25% to 45% with prevalence peaking around midlife years of 50 to 54 years.<sup>3</sup> Literature from various Indian studies suggests prevalence of urinary incontinence between 19% to 46%.<sup>4-7</sup> The prevalence of incontinence increases with age and decreases functional independence.

The most common types of urinary incontinence among women are stress urinary incontinence, urge urinary incontinence, and mixed urinary incontinence. Common factors responsible for stress and urge urinary incontinence are weak pelvic floor muscles, increased pressure on the abdominal region during sneezing, coughing and overactive bladder with uncontrollable urge. Mixed incontinence results when there is loss of urine associated with both situations, i.e. it is preceded by efforts and symptoms of

urgency.<sup>8</sup> The type of incontinence (stress or urge), frequency and the urine lost in a each episode has a negative impact on health related and global quality of life. It also influences a woman's social and sexual life. Triggers and barriers for help-seeking behaviour among women differ depending on the severity of UI.

Management of urinary incontinence includes wide variety of treatments which consists of conservative management (such as physiotherapy, lifestyle interventions, behavioural training, and anti-incontinence devices), pharmaceutical interventions and surgery. Physiotherapy and lifestyle interventions are considered to be the most effective first line of management of urinary incontinence in women. Recent international consultation on incontinence and Cochrane reviews have recommended pelvic floor muscle training as an effective first-line of conservative management for women with urinary incontinence.<sup>9,10</sup> Pelvic floor muscle training involves graded program to increase maximal muscle strength and endurance. Despite the evidence, data from the physiotherapy department of an 800 bed tertiary care medical college hospital indicates sub-optimal referrals to physiotherapy for the management of UI (one referral/month).

The condition is usually under reported as many women

hesitate to seek help or report symptoms to medical practitioners due to the embarrassing and culturally sensitive nature of this condition.<sup>11</sup> Appropriate clinical care pathways that encourage self-reporting of urinary incontinence by women, effective screening, immediate intervention and regular follow up are known to reduce the burden of this condition from society.<sup>12,13</sup>

It is evident from the literature across the globe that there are multiple barriers which exist for women reporting this problem to the health practitioner, most common being the low help seeking behaviour.<sup>14</sup> Most women only report when they become apprehensive or when the incontinence hinders their activities of daily living. When evaluating adult or elderly women, health care practitioners screen for a variety of conditions, including hypertension, diabetes mellitus, upper and lower respiratory problems, osteoarthritis, heart conditions and any neurological condition. In contrast, urinary incontinence which is traditionally perceived as a sensitive and embarrassing issue remains untouched. Despite the higher risk of incontinence post pregnancy, parity and aging; screening for UI is rarely undertaken by healthcare professionals, thereby missing out opportunities for identification of the problem and referring women for appropriate management. The burden of urinary incontinence among women and success of conservative treatment options justify routine screening, individualised assessment, and referral for treatment by health care professionals.

Our experience of low referrals for physiotherapy for the management of UI is not commensurate with the higher burden of incontinence among women as reported in the literature. This study, using outpatient data from a tertiary care hospital, was therefore undertaken to determine the potential for referrals to physiotherapy for management of UI among women.

## Materials and Methods

This study adopted a health systems research model to understand the potential for referrals and was conducted using outpatient data from a tertiary care medical college hospital. After due administrative permission, number of new individuals visiting any of the 33 outpatient departments in the month of May, June and July 2018 were extracted from the IT department. After applying necessary filters, all the men, women below age of 18 and individual visiting Department of accident & emergency, anaesthesiology & psychiatry were excluded.

Confirming to standards of ethical conduct and privacy

of the patients, the data from IT department was restricted to age, gender and department for which the individuals registered. All identifying details such as name, contact number and registration number were not retrieved.

National literature on UI prevalence studies was reviewed to determine the variability in the burden of the problem across categories of women (community dwelling women, post-partum women, post-menopausal women, elderly etc). Since most of the women visiting the hospital are vulnerable to various health problems and more likely to have urinary incontinence, from a reported prevalence ranging from 19%-46% across categories, within the context of hospital based samples, we used a conservative estimate of 25% prevalence. Considering the busy schedule and overcrowded outpatient departments, we assumed it would not be possible to screen every woman for urinary incontinence and created a model to determine potential for referrals using the following two assumptions:

1. In the hospital setting, UI is prevalent among 25% of women visiting various outpatient departments
2. During routine examination, it is feasible to screen 50% of women visiting any given department.

Using this model, we estimated the potential for referrals to physiotherapy from three sources: all departments, OBG & GYN and urology, and physiotherapy department (internal reference). Department of OBG & GYN and urology was categorised as the high potential departments. Projection for potential for referrals from these sources was analysed. The procedure is schematically represented in Fig. 1.

## Results and Analysis

There were a total of 67739 new OPD registrations in the three-month period. After applying all the necessary filters, we obtained 26546 new registrations of adult women visiting various outpatient departments of the hospital (Fig. 2). During the three-month period, a total of 26546, 5371 and 271 adult women (36±21 years) visited OPDs of all departments, high potential departments and physiotherapy department respectively.

If there existed a clinical care pathway to screen half of the women for urinary incontinence among all adult women visiting the hospital, even at a conservative estimate of 25% prevalence, our analysis indicates that the number of women identified with incontinence and thereby potentially referred to physiotherapy would have been significantly high. (Table 1).

**Table 1: The number of women identified with incontinence and were potential referrals to physiotherapy**

Departments	All departments	Obg & Gyn and Urology	Physiotherapy
Total number of new registrations	26546	5371	271
New women potentially screened for UI*	13273	2685	135
Potential referrals**	5309	1074	54

\* If there existed a clinical pathway to screen women and assuming 50% of women were screened.

\*\*Estimated using a conservative prevalence of Urinary incontinence of 25% among the 50% women screened for UI

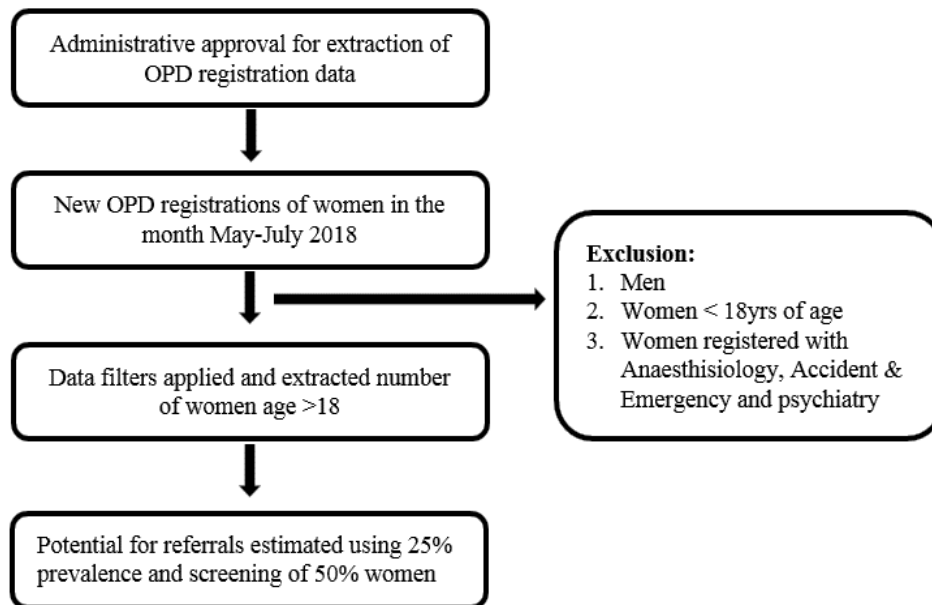


Fig. 1: Flow diagram of the process of calculation of potential for referrals

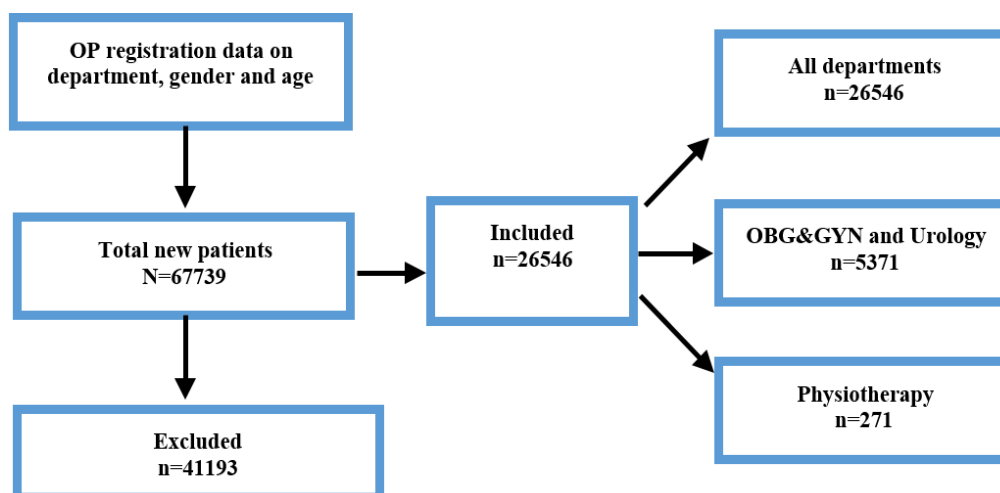


Fig. 2: Number of new registration of adult women during the three months study period

Our analysis and comparison with current practice indicated that there is a huge gap between the current referral pattern (one referral /month) and the potential for referrals.

### Discussion

The increased burden of urinary incontinence and availability of effective treatment options mandates an appropriate clinical care pathway to screen women for urinary incontinence. During the three-month period, women referred to physiotherapy for urinary incontinence were just three which is less than 1% of the total women in all outpatient departments. If there existed a clinical care pathway, our current analysis indicates that in comparison to current referral patterns, the referrals could potentially increase by over 300 and 20 times from high potential

departments and physiotherapy department respectively.

Inadequate referral has been identified as a critical factor contributing towards inequitable care. An in-depth analysis is required to understand the attitude of the health care professional towards continence awareness and promotion and barriers to good quality service. Establishing good quality service in terms of screening women for urinary incontinence emphasises health professionals to recognise the problem and implement a more rapid and appropriate patient referral pathways. Screening, assessment of women in high potential department and continence promotion are identified as important steps for a good quality service and improving health care delivery system. Urinary incontinence is highly prevalent condition among women which responds to conservative treatment and justifies a routine screening.

A few organisations have attempted to address this

concern of low referral patterns and proposed effective models. Chartered society of physiotherapy conducted a project to evaluate patient self-referral to women's health physiotherapy pilot sites.<sup>15</sup> The aim of the project was to evaluate the impact of introducing patient self-referral, increased access for incontinence management services patients, effectiveness of the pelvic floor muscle training provided and the clinical outcomes of the care provided. They concluded patient self-referral as an additional route of access to effective treatment and showed both patient benefits and service benefits in terms of empowerment in patients to refer themselves and providing easier access to services and saved time. It was also shown to promote equality of access of various services.

A tertiary public health hospital in Australia studied the referrals pathways and identified facilitators and barriers for women receiving physiotherapy management.<sup>16</sup> A pilot gynaecology physiotherapy assessment service was designed as an initiative to improve the clinical care pathway for women referred to the gynaecology Department with symptoms of urinary incontinence. This model of care was introduced with a aim to facilitate more timely and easy access to appropriate care in the tertiary healthcare system. This kind of model provides an advanced scope for the physiotherapist, acting as a first point practitioner for women who can respond positively to conservative management and avoid lengthy wait times in gynaecology department.

NHS, Wales has a documented guidelines for referring patients to Physiotherapy for the treatment of pelvic floor dysfunctions.<sup>17</sup> They have documented out a model of good and optimal level practice to help health care professionals achieve more responsive, equitable and effective continence services to benefit patients. These kind of documents assist healthcare professionals in making appropriate referrals of women with urinary incontinence for physiotherapy management.

One out every three women will experience urinary incontinence at some point in her life. The data from this study suggest limited utilisation of physiotherapy services for incontinence. There is a need to develop a unified health systems approach to improve access to care.

## Conclusion

There is an extensive gap between potential for referrals and current practice. Creating awareness about the potential of referrals for women with urinary incontinence among the key stake holders is required. Introduction to specific clinical care pathways are recommended to improve physiotherapy services for urinary incontinence and raise standards of health care delivery system.

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data.

## Declaration

This study won M.G. Mokashi Award for the best platform presentation in the 4th Annual conference of Society of Indian Physiotherapist, New Delhi 2019.

## Author Contributions

SKV conceived the idea, all authors contributed to the development of the idea, VS and SKV collected data and performed the analysis. VS wrote the first draft and all authors contributed to editing the manuscript and approved the final version.

**Conflict of Interest:** None.

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