

## A descriptive study on the prevalence and awareness about stress urinary incontinence among women of rural areas of Punjab, India

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### ABSTRACT

**Background:** Urinary incontinence is a common problem in women globally. Stress Urinary incontinence affects 50-70% of the population. Because of its high prevalence, the World Health Organization (WHO) has declared urinary incontinence a lifestyle disease along with diabetes, coronary heart disease and obesity. Stress urinary incontinence is embarrassing and distressing problem which affect individuals quality of life, psychological status, restrict social activity in women and are usually accompanied by some severe medical conditions.

**Objective:** To determine the prevalence and awareness of stress urinary incontinence in women. **Methods:** This study was a quantitative, cross-sectional survey, with the objective to determine the prevalence and awareness of stress urinary incontinence among women of district Patiala, Punjab. The sample of 120 women of age 25 and above was taken on the basis of convenience sampling. The data were collected from primiparous, nuliparous and women with menopause by using a self administered questionnaire. Data were analysed using descriptive statistics.

**Results:** 39.1% (47 out of 120) had stress urinary incontinence, out of which 61.7% (29 out of 47) belongs to the age group above 40 years, 65.9% were overweight, 95.7% were multiparous and 91.4% gave birth through normal type of delivery, 57.4% had higher education level, 89.3% belong to middle class family and 74.4% were housewives and 46.8% women had menopause. According to Severity Index 72.3% (34 out of 47) women had slight, 21.2% moderate and 6.3% women had severe stress urinary incontinence.

**Conclusion:** Stress urinary incontinence is a commonly encountered situation, has an impact on the quality of life of women and affects productivity and decreases activity levels in women. It is concluded that, predisposing factors of SUI should be defined well and measures should be taken to encourage women experiencing this problem to visit a health care practitioner and get an efficient physiotherapy treatment.

### Background

Urinary incontinence is a common problem in women globally. Urinary incontinence (UI) is defined by International Continence Society (ICS) as the complaint of involuntary loss of urine, creating a social problem. There are three main types of Urinary incontinence: Stress

### Article Information

**Conference Proceedings:** Online Conference on Physiotherapy, Physical Rehabilitation and Sports Medicine

**Conference date:** October 28-29, 2020

[Inovineconferences.com](http://Inovineconferences.com)

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**Citation:** Navroop K (2020) Effect of physical activity in young females with primary dysmenorrhea: A REVIEW. J Health Sci Dev

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UI, Urge UI, and Mixed UI (1). According to International Urogynecology Association (IUA) and International Continence Society (ICS) standard definition of stress urinary incontinence (SUI) is the complaint of urine leakage in association with coughing, sneezing, laughing or physical exertion, whereas urge urinary incontinence (UUI) is the complaint of urine leakage associated with a sudden compelling desire to void that is difficult to defer. Mixed urinary incontinence (MUI) is a combination of stress and urge urinary incontinence. According to some studies urinary incontinence occurs twice as frequently in women than in men and the prevalence increases with age. Stress Urinary incontinence affects 50-70% of the population (2). Because of its high prevalence, the World Health Organization (WHO) has declared urinary incontinence a lifestyle disease along with diabetes, coronary heart disease and obesity. Stress urinary incontinence is embarrassing and distressing problem which affects individuals' quality of life, psychological status, restricts social activity in women and are usually accompanied by some medical conditions (1,3). Mason et al, 1999 suggest that effect of urinary incontinence may vary according to the severity of the condition and the age of the women. Stress urinary incontinence is not only a medical problem but also involves many social aspects. It creates serious economic problems for families due to the hygienic pad use and high cost of care given in nursing homes and hospitals. This condition is usually ignored by many women just because women take it as normal aging process or think it is embarrassing to discuss such problem.

The stress urinary incontinence or urine leakage assuredly affects the quality of life of the sufferers. It is seen that most women find it difficult to discuss about this condition because they feel it as an embarrassing condition. Very few women seek help for this condition and consult a health care professional.

Treatment for SUI can be surgical and conservative in nature such as physiotherapy (PT), lifestyle modifications and medication therapy. Unfortunately, physiotherapy is often ignored choice of treatment by the women in case of stress urinary incontinence may be due to lack of knowledge or awareness regarding the role of physiotherapy in the management of SUI. Even a recent study shows that physiotherapy is an effective treatment in the case of women with stress urinary incontinence (Shah zarna et al, 2014). Various physiotherapy treatment for SUI includes health education, counselling, life style modifications, electrostimulation, audio - visual biofeedback, vibratory training, vaginal cones, behavioral therapy, core muscle strengthening, or combination of the modalities, kinesiotherapy, medical massage, magnetotherapy, etc.

Kinesiotherapy in SUI covers Kegel exercises of the pelvic floor muscles, known in literature as Pelvic Floor Muscle Exercises (PFME) or Pelvic Floor Muscle Training (PFMT), isometric exercises, exercises of the abdominal and gluteal muscles and of the adductor of thigh, respiratory exercises carried out through the abdominal tract, exercises in water, manual massage of the adductor muscles and the posterior group of the ischial tibial muscles. A moderate training, e.g.

including exercises of Pilates method, may be part of SUI therapy. Many researchers have confirmed the beneficial influence of exercise on SUI.

Urinary incontinence has an immense impact on the social and mental health, and the quality of life of a person. Women neither come forward seeking medical consultation nor do they discuss about their incontinence openly, and the condition remains underestimated in the society. There are many unreported cases in the population as per several hospital-based studies done in India before. Unfortunately, physiotherapy is often overlooked by women in case of stress urinary incontinence may be because of lack of knowledge about role of physiotherapy in management of this condition. So, There is need to make them aware about the stress urinary incontinence and its physiotherapy management. The knowledge about the stress urinary incontinence and its physiotherapy management in this population will help us to take measures to reduce the burden of the condition.

## Study Design And Methodology

This study was a quantitative, cross-sectional survey study with the objective to determine the prevalence and awareness of stress urinary incontinence among women of district Patiala, Punjab. Convenience Sampling was used to draw the sample of 120 female subjects.

### Inclusion criteria:

- Women of age 25 years and more
- Primiparous
- multiparous
- women with menopause

### Exclusion criteria:

- nulliparous
- pregnant women
- any neurological deficit
- any malignancy

A self administered questionnaire and Severity Index tool, given by Hanley, Capewell, Hagen (2001) were used for collecting the data. The questionnaire consists of three sections: section (a) socio demographic characteristics, section (b) questions about complaint urinary leakage, frequency of leakage, volume of leakage, type of activity that promotes leakage, any chronic illness, personal habits, past medical history, and involvement in doing general exercises, whereas section (c) consists of questions regarding awareness of physiotherapy management and question asking the reason for not consulting about the condition. Descriptive statistics were used to analyze the data and bar graphs and frequency tables were used to present the data.

## Results

A total of 120 women participated in the study. More than half of the women under the study belong to the age group below 40 years, 55.8% had normal BMI, 66.6 % were multiparous and gave birth through normal type of delivery,

68.3 % had higher education level, 85.5 % belong to middle class family and were housewives, 24.1% women had menopause (Table 1).

Parameters	n	%
<b>Age (years)</b>		
Above 40	29	61.7
Below 40	18	38.2
<b>Body mass index (BMI)</b>		
underweight	0	0
normal weight (healthy)	8	17.0
over weight	31	65.9
Obese	8	17.0
<b>Type of delivery</b>		
Normal	43	91.4
Cesarian section	2	4.2
Mixed	2	4.2
<b>No. of Children</b>		
Primiparous	2	4.2
Multiparous	45	95.7
<b>Menopause</b>		
Yes	22	46.8
No	25	53.1

Table 1: Demographic Characteristics of participants (N=120) under study

## Prevalence of Stress Urinary Incontinence Among women (N = 120)

39.1% women had stress urinary incontinence

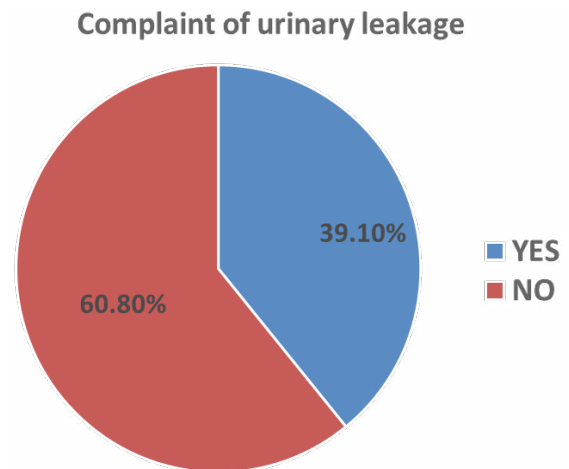


Fig 1: Prevalence of SUI among women

Of the 47 (39.1%) women with stress urinary incontinence, 61.7% (29 out of 47) belong to the age group above 40 years, 65.9% (31 out of 47) were overweight, 95.7% (45 out of 47) were multiparous and 91.4% (43 out of 47) gave birth through normal type of delivery, 57.4% (27 out of 47) had higher education level, 89.3% (42 out of 47) belong to middle class family and 74.4% (35 out of 47) were housewives, 46.8% (22 out of 47) women had menopause (Table 2).

Parameters	n	%
<b>Age (years)</b>		
Above 40	29	61.7
Below 40	18	38.2
<b>Body mass index (BMI)</b>		
underweight	0	0
normal weight (healthy)	8	17.0
over weight	31	65.9
Obese	8	17.0
<b>Type of delivery</b>		
Normal	43	91.4
Cesarian section	2	4.2
Mixed	2	4.2
<b>No. of Children</b>		
Primiparous	2	4.2
Multiparous	45	95.7
<b>Menopause</b>		

Yes	22	46.8
No	25	53.1
<b>Level of Education</b>		
Without schooling	0	0
Elementary school	3	6.3
High school	17	36.1
Higher education	27	57.4
<b>Socio-economic Status</b>		
Lower class	1	2.1
Middle class	42	89.3
Higher class	4	8.5
<b>Occupation</b>		
Housemaid	1	2.1
Housewife	35	74.4
Other	11	23.4

Table 2: Cross tabulation between variables and SUI prevalence

### Level of severity of SUI (N= 47)

According to "Severity Index", a tool given by Hanley, Capewell, Hagen (2001). In our study 72.3% (34 out of 47) women had slight stress urinary incontinence , 21.2% (10 out of 47) moderate and 6.3% (3 out of 47) women had severe stress urinary incontinence

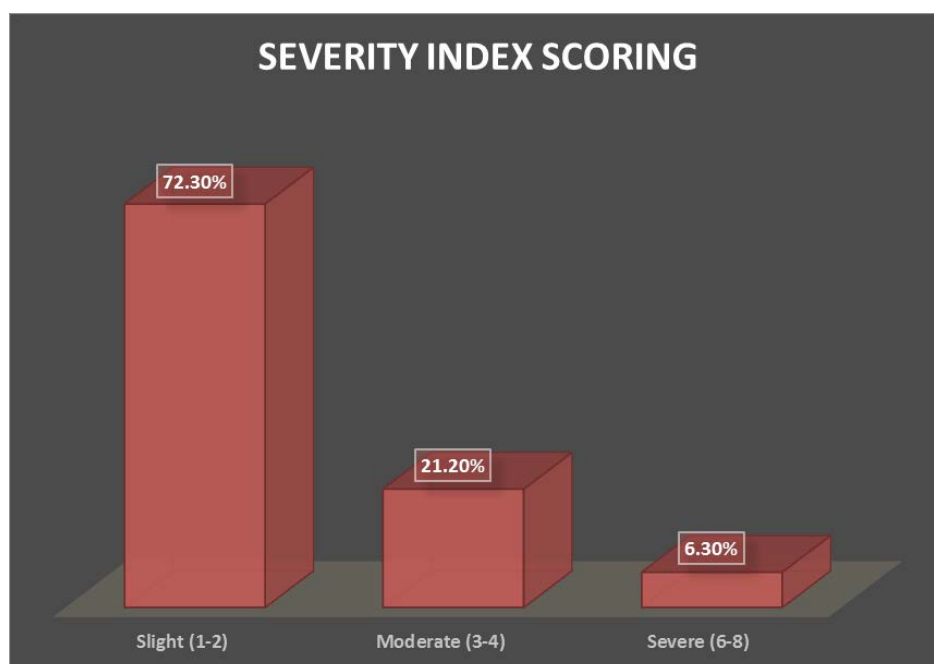
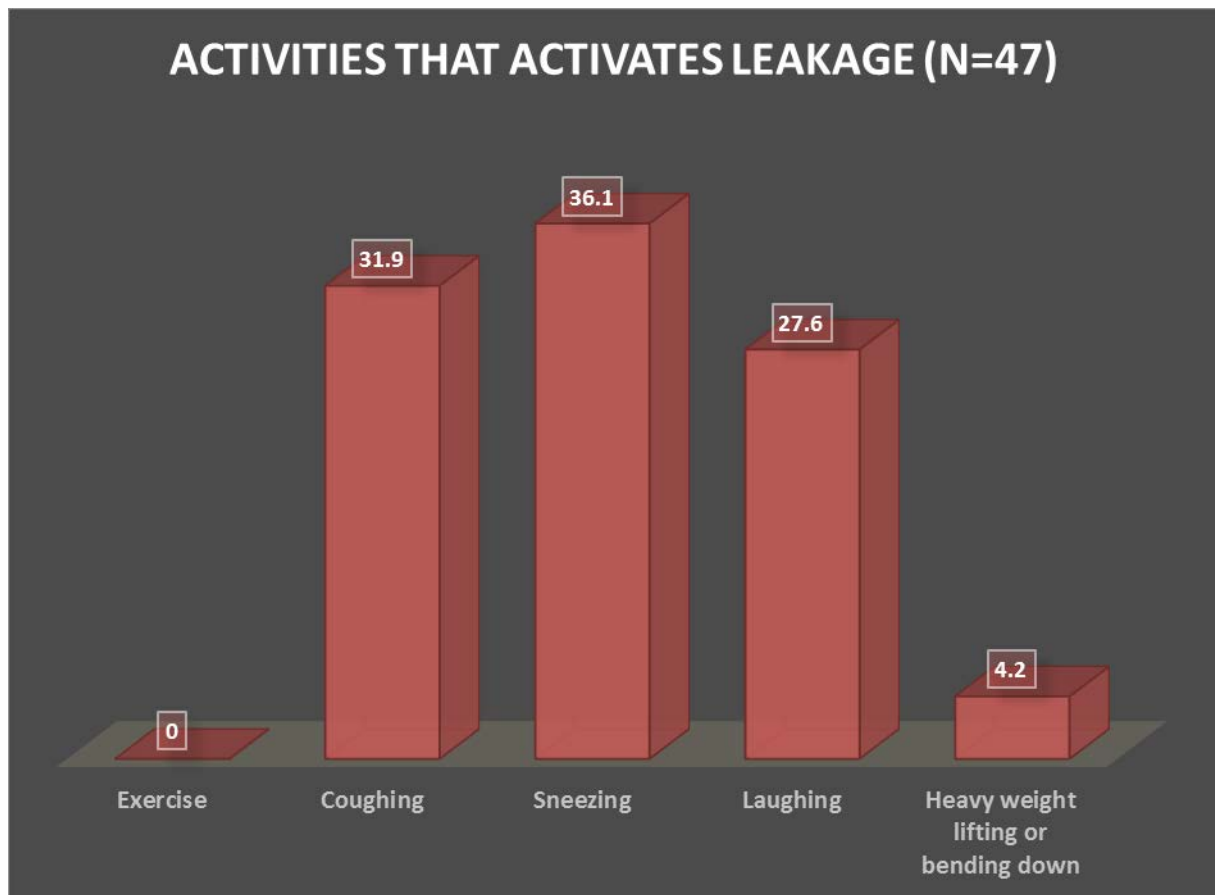


Fig 2: severity index scoring

**Activities that activates leakage:**

31.9 % and 36.1% women leaks urine during coughing and sneezing respectively, whereas 4.2% and 27.6% had problem during laughing and heavy weight lifting or bending down.



**Figure 3:** Figure show the activities that activates leakage

parameters	n	%
<b>Chronic illness</b>		
Chronic cough	2	4.2
Diabetes	6	12.7
Hypertension	6	12.7
Asthma	2	4.2
No	31	65.9
<b>Personal habits</b>		
Smoking	0	0
Alcohol	2	4.2
No	45	95.7
<b>Undergone hysterectomy or any surgery</b>		
Yes	3	6.3
No	44	93.6
<b>Complications during pregnancy</b>		
Yes	3	6.3
No	44	93.6

**Table 3:** Associated factors with SUI

## Habit of exercise (N=47)

40.4% women were in a habit of doing walking as general exercise in a daily routine where as 46.8% women were not involved in doing any type of exercises

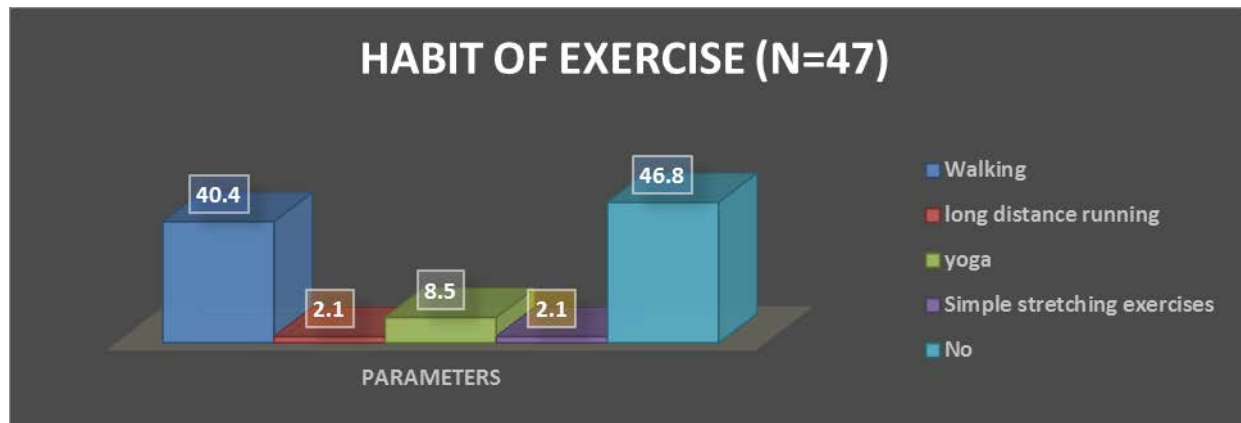
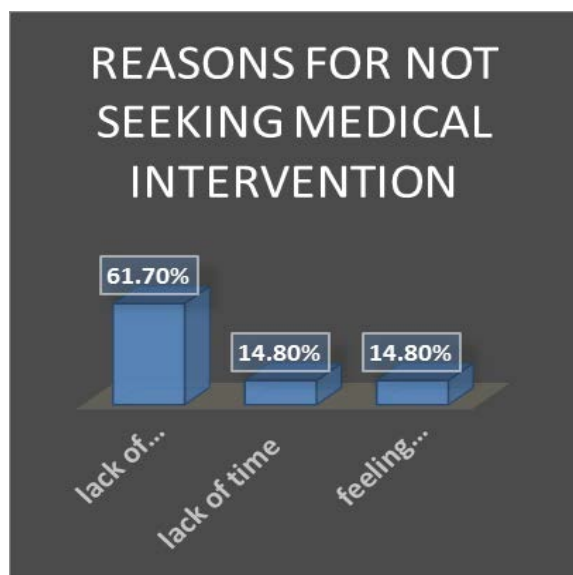


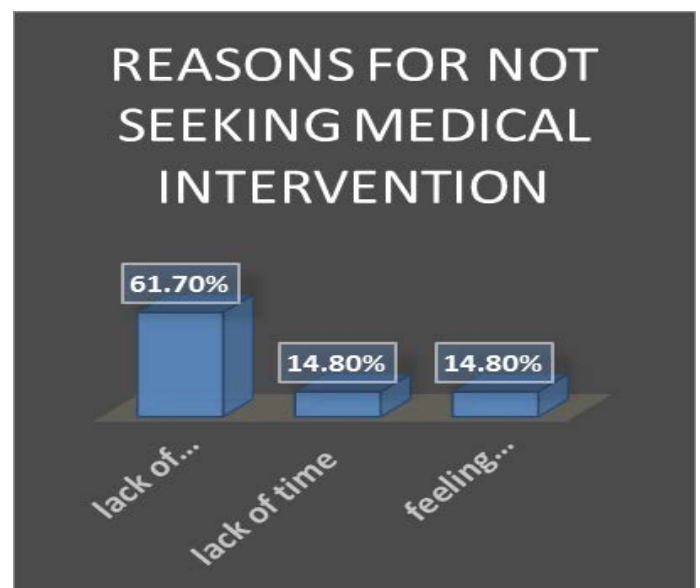
Fig 4: Figure show the habit of exercise

## Awareness about Physiotherapy management

Under the study, 6 (12.7%) women were aware about the role of physiotherapy in SUI. Of the 6 women who were aware about the physiotherapy only 4 women had taken the treatment where as 43 (91.4%) women have not consulted to any health care practitioner due to lack of knowledge (61.7%) , lack of time (14.8%) and 14.8% women feel it embarrassed to discuss .



A



B

Fig 5: A: Aware about the physiotherapy in SUI B: Reasons for not seeking medical Intervention

## Discussion and Conclusion:

Stress urinary incontinence is a commonly encountered situation that affects many women in a certain period of their lives. SUI occurs twice as frequently in women than in men and the prevalence increases with age. SUI has an impact on the quality of life of women and affects productivity and decreases activity levels in women. The majority of participants did not know the significant role of physiotherapy in managing this problem. Hence we conclude that, predisposing factors of SUI should be defined well and measures should be taken to encourage women experiencing this problem to visit a health care practitioner and get an efficient physiotherapy treatment. It is therefore also recommended that physiotherapists should take initiative in empowering women in general about the existing treatment options rather than surgery. Future research directions should aim to increase understanding of the mechanisms in which physical activity contributes to the pelvic floor dysfunction and clinical symptoms, establish strategies for medical professionals to aid with the diagnosis of symptoms in at

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