International Journal of Science and Research (IJSR)
ISSN (Online): 2319-7064
Index Copernicus Value (2013): 6.14 | Impact Factor (2015): 6.391

A Study to find out the Frequency of Stress Urinary Incontinence in Post Partum Females

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Abstract: ***urinary incontinence is a common problem in pregnancy and almost 56% of females are found to suffer with urinary incontinence which affects their social and personal life. The purpose of this study is to determine the prevalence of stress urinary incontinence among post-partum females. This cross-sectional descriptive study was conducted at Lady Aitcheson and Sir Gnaga Ram hospital Lahore. 190 questionnaires were circulated among females out of which 186 were returned filled completely. Stress incontinence has high frequency and 80% population was found to be suffered with stress urinary incontinence and 47% population was suffering with urge incontinence, as was ruled out by Questionnaire urinary incontinence diagnosis. The findings of this study clearly indicated that post-partum females have a high incidence of stress urinary incontinence i.e. 80%.***

Keywords: urinary incontinence, stress urinary incontinence, urge urinary incontinence

1. Introduction

1.1 Overview

Urinary incontinence involving stress is one of the major global, medical, problem usually occurring in females. It is commonly known as urine leakage and it greatly affect the activity, feelings, relationships, social and sexual life of females.. Stress urinary incontinence has a great effect on life quality of females. Many of the females do not even consult to doctors for this condition, which can be dangerous and life threatening. Not only treatments but also knowledge, education ,lifestyle modification should be given to females by health Urinary incontinence is a common condition among women. The prevalence of incontinence varies widely. Incontinence during pregnancy has been linked to age; body mass index (BMI), strenuous physical exercise, smoking history, vaginal birth and repeated pregnancies(1).

Most common form of urinary incontinence is stress incontinence in expecting women having damaging effects on the health and value of life. SUI usually occur in pregnancy and chief danger cause for the growth of SUI. All through the pregnancy there is increase of pressure because of the developing baby and baby weight moreover add pressure on pelvic floor muscles (PFM),hormonal changes are also accompanied during pregnancy that results in decrease in stability ,strength and, function of sphincter.. This may lead to decrease in functional capacity leading to incompetence of urethral sphincter. Incidence in primigravidae is same to the women having multiple babies Important risk factors for the growth of SUI is pregnancy and factors that are related to delivery.(2) When the strength of muscles of bladder and pelvic floor become weak that results in decrease of contraction or muscles of sphincter stop relaxing. As a result of this failure of pelvic and sphincter musles, small amount of urine usually pass than normal and also with very low, this cause change in position of bladder and location. As pressure in abdomen is highly increased further more factor like obesity may cause condition severe. Weight loss thus should be done in order to decrease the severity of disease.(3) Stress happens whenever pressure in bladder increases causing closure of urethral results in temporary opening of sphincter and loss of urine.. Physical behavior usually cause it, like lifting heavy objects, sneezing with pressure, coughing, and other actions that account for direct increase of force on intra abdominal leading to increased pressure. Numerous possibility factors accounts for SUI development .The occurrence of UI in women usually increases with age. UI factors that cause its increase or growth are hysterectomy, hormonal therapy,BMI exceeding, 30 kg/m^2, ,diabetic patient having smoking, energectic physically and sexually active, may lead towards the raising of UI ratio.. In general occurrence of incontinence raises with increased elongated strength of cough usually linked with taking high doses of caffeine. In Addition certain reaction of diuretics may cause smooth muscle contraction effected.. Early conservative therapy is considered to be the the recent treatment plan for SUI that plus nutritional guidance ,weight drop, management of bowel troubles and evils and pelvic floor physical therapy recommended exercises, surgical intrusion may be used if conservative therapy fail to prove sufficient . (4)Quality of life adversely effects by Stress issues on women life and health Now this is time for awareness to this issue by giving knowledge to millions of women that help them to make changes in their daily lifestyle in order to decrease the issue of stress and to make sure to them that they are not alone if they are facing such problem.(5)

1.2 Objectives

To find out the frequency of stress urinary incontinence in post-partum females of Lahore city

1.3 Rationale

This study is focused to find out the Frequency of stress urinary incontinence in Post partum females of Lahore city. Through frequency of stress urinary incontinence we can find out those risk factors that cause increase in stress urinary incontinence and as a result we can decrease the severity of disease and thus can improve the females Quality of life .

1.4 Operational Definition

Stress urinary incontinence problem is measured using QUID (Questionnaire Urinary Incontinence Diagnosis) questionnaire. QUID will be used as a screening tool. It distinguishes the stress urinary incontinence from the urge incontinence. It contains scorings procedure in which 1, 2, 3 scores for stress while 4, 5 and 6 scores for urge incontinence. It contains variable like sneezing, lifting, bending, walking, jogging Internal consistency was good 0.72 is for QUID total scores where 0.64 for QUID, Stress scores and 0.87 for QUID scores overall. Sensitivity and specificity for SUI (stress score) ≥ 4 . Validity of QUID stress and urge scores demonstrated good with values 85 and 87 %respectively. Reliability of QUID very good and it is calculated to be 80%. (6)

1.5 Materials and Methods

1.5.1 Study Design
Descriptive Cross-sectional Survey

1.5.2 Setting
Gynecology Departments of Lady Aitcheson Hospital, Lahore and Sir Ganga Ram Hospital, Lahore

1.5.3 Study Population
Postpartum females patient of Lady Aitcheson and Sir ganga Ram Hospital Lahore.

1.5.4 Duration of Study
Three months after the approval of synopsis

1.5.5 Sample size
A convenience sample of 189 patients with stress urinary incontinence was taken. The sample size was collected by the Rao-soft calculator according to following formula:

$$Z(c/100)2r(100-r)$$
$$N\ x/((N-1)E2 + x)$$
$$Sqrt[(N - n)x/n(N-1)]$$

Where N stands for population size and r is fraction of response

1.5.6 Eligibility

1.5.6.1 Inclusion Criteria
1. Females having intact micturition reflex.
2. Females underwent Episiotomy.
3. Females with multiple pregnancies.
4. Females with SVD (simple vaginal delivery).
5. Females ranging between age 18 to 45 years.

1.5.6.2 Exclusion Criteria
1. Females having cervix cancer.
2. Any other pathology like Spinal cord injury, sacral plexus injury.
3. Females having any neurological abnormality.

1.5.7 Data collection
The patient of SUI who visited the department of Gynecology of hospitals were taken. First I have taken the consent of permission from the head of the Gynecology department for conducting research in his set up and I have also provided consent forms to patient. .Then I used convenience sampling technique for selecting patient. After taking history and demographic data , for the diagnosis of stress incontinence I used QUID(Questionnaire Urinary Incontinence Diagnosis) as a screening tool that will screen the stress incontinence patients QUID will be used as a screening tool. It distinguishes the stress urinary incontinence from the urge incontinence. It contains scorings procedure in which 1, 2, 3 scores for stress while 4, 5 and 6 scores for urge incontinence. It contains variable like sneezing, lifting, bending, walking, jogging Internal consistency was good 0.72 is for QUID total scores where 0.64 for QUID Stress scores and 0.87 for QUID scores overall. and overall symptoms and frequency of stress incontinence. was measured. Data was analyzed on SPSS Version .The data was arranged in the form of frequency tables

1.5.8 Ethical consideration
Permission from Hospital Administrations, Head of Department of Gynecology of concerned Hospitals and written consent from the patients with thumb impression was taken and their data was placed in full confidentiality.

1.5.9 Statistical Procedure
The data was analyzed by Statistical Package for Social Sciences (SPSS) version 16 as Descriptive statistical analysis. Frequency of stress urinary incontinence using QUID (Questionnaire for Urinay Incontinence Diagnosis) was presented with the help of frequency tables.

2. Results

2.1 Occupation

Table 1: Descriptive statistics of occupation.

Category	Frequency	Percent
Housewife	118	63.4
Maid	18	9.7
Student	5	2.7
Tailor	11	5.9
Teacher	19	10.2
Working woman	15	8.1
Total	186	100.0

Data was analyzed and it was seen that majority of females i.e. 63.4% were housewives. Furthermore data included working women, maids, tailors, teachers and students.

2.1 Exercise

Table 2: Exercise

Category	Frequency	Percent
No	95	51.1
Yes	91	48.9
Total	186	100.0

51.1% population mentioned that they don't perform exercise however 48.9% population performed exercise.

2.3 Number of Pregnancies

Table 3: Descriptive statistics of Number of pregnancies

Category	*Frequency*	*Percent*
0	5	2.7
1	60	32.3
2	60	32.3
3	13	7.0
4	10	5.4
6	30	16.1
8	8	4.3
Total	186	100.0

32.2% population had one or two pregnancies 7% population had 3 number of total pregnancies 5.4% population had 4 pregnancies 16.1% population had 6 pregnancies, 4.3% population had 8 number of pregnancies whereas 2.7% population had no pregnancies.

2.4 Number of vaginal deliveries

Table 4: Descriptive statistics of Number of Vaginal deliveries

Category	*Frequency*	*Percent*
0	49	26.3
1	64	34.4
2	35	18.8
3	30	16.1
4	8	4.3
Total	186	100.0

26.3% population mentioned that they had no vaginal deliveries, whereas 34.4%, 18.8%, 16.1% and 4.3% mentioned that they had 1,2,3 and 4 number of vaginal deliveries respectively.

2.5 Number of cesareans

Table 5: Descriptive statistics of Number of Cesareans

Category	Frequency	Percent
0	45	24.2
1	76	40.9
2	24	12.9
3	33	17.7
4	8	4.3
Total	186	100.0

Majority of the population i.e. 40.9% had 1 cesarean whereas 24.2%, 12.9%, 17.7% and 4.3% population had 0, 2, 3 and 4 number of cesareans respectively.

2.6 Urine leakage during coughing

Table 6: Descriptive analysis of leakage during coughing

Category	*Frequency*	*Percent*
all the time	3	1.6
most of the time	70	37.6
none of the time	14	7.5
often	78	41.9
once in awhile	7	3.8
rarely	14	7.5
Total	186	100.0

When participants were asked whether they leak urine while coughing, 1.6% population mentioned that while coughing they leak urine all the time whereas 37.6% population mentioned that they leak urine most of the time, 41.9% stated that they often leak urine 3.8% were those who leak urine once in a while, 7.5% leak urine rarely and the same figure stated that they leak urine none of the time.

2.7 Urine leakage while bending

Table 7: Analysis of leakage of urine while patient bends

Category	*Frequency*	*Percent*
all the time	8	4.3
most of the time	54	29.0
none of the time	7	3.8
Often	83	44.6
once a while	13	7.0
Rarely	21	11.3
Total	186	100.0

When participants were asked whether they leak urine while bending 4.3% mentioned that they leak urine all the time, 29% population leaked urine most of the time, 3.8% leaked urine none of the time, 7% mentioned that they leak urine once in a while and 11.3% leaked urine rarely whereas majority leaked urine rarely.

2.8 Urine leakage while walking

Table 8: Descriptive Analysis of urine leakage while walking

Category	*Frequency*	*Percent*
all the time	23	12.4
most of the time	53	28.5
none of the time	14	7.5
Often	81	43.5
once in a while	8	4.3
Rarely	7	3.8
Total	186	100.0

When participants were asked whether they leak urine while walking 12.4 % population stated that they leak urine all the time, 28.5% mentioned that they leak urine most of the time, 7.5% stated that they leak urine none of the time, 43.5% were those who leaked urine often whereas 4.3% and 3.8% leaked urine once in a while and rarely respectively.

2.9 Urine leakage while undressing for toilet.

Table 9: Descriptive Analysis of leakage during undressing for toilet.

Category	*Frequency*	*Frequency*
most of the time	5	2.7
none of the time	45	24.2
Often	14	7.5
once a while	99	53.2
Rarely	23	12.4
Total	186	100.0

When participants were asked whether they leak urine while undressing for toilet, 2.7% mentioned that they leak urine most of the time, 24.2% population leaked urine none of the time, 7.5% often leaked urine, 53.2% leaked urine once in a while, however 12.4% leaked urine rarely.

2.10 Leak urine with Uncomfortable need to urinate.

Table 10: Analysis of need to urinate and leakage of urine

Category	*Frequency*	*Percent*
most of the time	5	2.7
none of the time	48	25.8
Often	17	9.1
once a while	65	34.9
Rarely	51	27.4
Total	186	100.0

When participants were asked whether they leak urine with strong urge to urinate 2.7% were those who leaked urine most of the time, 25.8% leaked urine none of the time, 9.1% leaked urine often, 34.9% leaked urine once in a while and 27.4% leaked urine rarely.

2.11 Leak urine with strong urge to urinate.

Table 11: Analysis of strong urge to urinate and leakage of urine

Category	*Frequency*	*Percent*
most of the time	5	2.7
none of the time	77	41.4
Often	25	13.4
once a while	57	30.6
Rarely	22	11.8
Total	186	100.0

Participants were asked whether they rush to toilet in urge to urinate 2.7% population mentioned they do this most of the time, 41.4% population mentioned they do this none of the time, 13.4% did this often however 30.6% and 11.8% mentioned that they do so once in a while and rarely respectively.

3. Conclusion

At the end of the research it was concluded that stress incontinence has a high frequency, results were found to be in accordance to previous researches showed that stress urinary problems is increasing day by day with high frequency of stress incontinence i.e. 80% was found to be prevalent in females showing an alarming situation affecting not only health but also Quality of Women Life.

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