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Available online at: http://www.iajps.com ***Research Article***

THE FREQUENCY AND RISK FACTORS OF URINARY INCONTINAENCE AMONG PAKISTANI PREGNANT WOMEN

[1]Dr. Hassan Iftikhar, [2]Dr. Zareen Tahir, [3]Dr. Firdaus Fatima Tiwana

[1]Services Hospital Lahore.

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Abstract:

Objective: *The objective of this study is to interrogate the impact of UI (Urinary Incontinence) among the Pakistani females with pregnancy on the QoL (Quality of Life) and to find out the rate and factors of risks of this complication.*

Methodology: *This research work was an elaborate transverse research work. Five hundred and two females with pregnancy were the part of this research work.*

Results: *We found that UI was present in 40.40% females having pregnancy. Total 78.80% pregnant females with urinary incontinence found with of stress urinary incontinence, mixed type urinary incontinence was available in 14.80% pregnant females & 6.40% pregnant females found with urge urinary incontinence. Total 12.90% females with pregnancy found with awareness of the exercises of muscles of pelvic floor. Discomfort was present in 73.50% pregnant females, 75.30% females found with the thought that pregnancy was affecting their routine activities, 69.30% pregnant females were getting support from health institutes, and 52.60% pregnant females were taking less amount of liquids due to depression of the urinary incontinence. The factors of risk of urinary incontinence among the females with pregnancy were old age & birth without planning or sudden pregnancy.*

Conclusion: *UI is very common problem of health among the females having pregnancy in our country Pakistan. The impact of this problem on QoL is not positive. The specialists of the health care institute should interrogate pregnant females for urinary incontinence in antenatal care & they should inform the patients about the exercises of muscles of pelvic floor.*

Key Words: *Pregnancy, UI, QoL, incontinence, risk, methodology, transverse, discomfort.*

Corresponding author:

Dr. Hassan Iftikhar,

Services Hospital Lahore.

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INTRODUCTION:

The unwilling urine loss is urinary incontinence [1]. Urinary incontinence is the cause of loss of self-respect, felling of defenselessness, despair & worry [2]. Females commonly face urinary incontinence, particularly in pregnancy & after child birth [3, 4]. The alterations in the levels of hormones, rate of the glomerular filtration and anatomic variations have association with the enlarged uterus; these can be the risk factors of the urinary incontinence in the period of pregnancy [5]. The decreased fascia tensile power in the period of pregnancy may create the incontinence of the antenatal stress [5-7]. Urinary incontinence is a serious issue of health which can be the reason of significant mortification, inconvenience & anxiety of pregnant females [8]. Various works conducted during pregnancy have concluded that from 32.0% to 60.0% females states the urinary incontinence during their pregnancy period [9, 10, 11]. Urinary incontinence UI have shown association among serious forms of the urinary incontinence & assisted deliveries [2, 12]. Exercises of the pelvic floor are very necessary & after the delivery, it supports to hinder the onset of postnatal urinary incontinence [2, 7, 13-15]. The expert opinions on the same subjects proved that the exercises of the pelvic floor are very effectual in the treatment of stress urinary incontinence in females [14, 16] especially at the postnatal duration [2, 3]. There are many case studies on the females suffering from urinary incontinence in our populations [17, 19] but some studies are about the urinary incontinence in pregnancy period [11].

METHODOLOGY:

This was an elaborate transverse research work. Total 502 pregnant females with no UI before this pregnancy were the part of this case work. These females visited the OPD of Obstetric department of Jinnah Hospital Lahore. The females found volunteer were the part of this study. The duration of this research work was from November 2018 to February 2019. A questionnaire was in use for the collection of the information related to the particular subject [2-9]. There were 23question in the questionnaire. The division of the questions was available in 2 parts. The question about demographic information & obstetric traits of the females with pregnancy were 11 & questions about the features of urinary incontinence were 12.

The information of the age of the patient, profession, qualification, delivery mode, number of children, living environment, weight, pregnancy month, and frequency of delivery and history of serious diseases was present in first part. The particular information of the urinary incontinence was present in the second part of questionnaire. The ethical committee of the hospital gave the approval to conduct this case work. Patients were well informed that they will not any payment for their participation in the study. There was the presence of several dependent variables with the females with urinary incontinence. T test & Chi square method were in use for the analysis to find out the relationship among independent & dependent variables. A significant P value was < 0.050.

RESULTS:

The average age of the patients was 26.70 years. The mean child births of females with pregnancy were 1.70. The average pregnancy period was 8.10 months. The average weight of the previous child at the time of birth was 3323.5 gram. The birth frequency was 2.90 years. In this research work, 44.0% pregnant females were available with education of elementary school, 79.10% pregnant females were housewives and 72.30% females were living in the urban areas. The delivery mode of 53.40% females with pregnancy was cesarean section. Episiotomy in the previous delivery was imminent in 38.0% females. In this case study, 23.10% found with chronic systemic diseases, 22.30% were available with the diseases of excretory system & 8.40% were suffering from the diseases of respiratory system.

Table-I: Independent Determinants and Risk Factors Associated with UI (n=502).

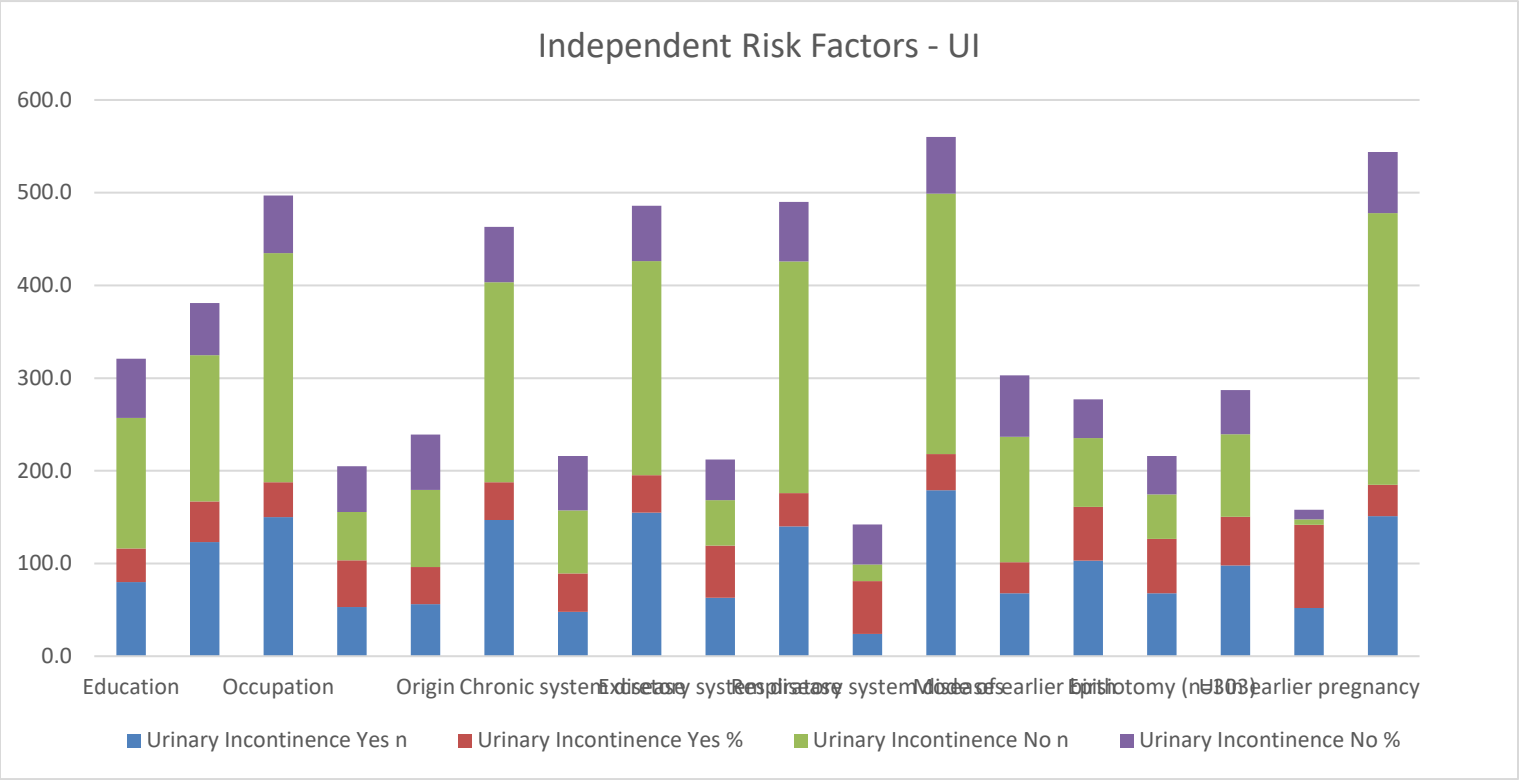
Variables		Urinary Incontinence				Significant Test	OR (95% Cl)**
		Yes		No			
		n	%	n	%		
Education	Elementary school	80.0	36.20	141.0	63.80	N-Sig	0.9530 (0.4620-1.9630)
	Middle school and higher	123.0	43.80	158.0	56.20		
Occupation	Housewife	150.0	37.80	247.0	62.20	X2=5.0400	1.4050 (0.6230-3.1720)
	Working	53.0	50.50	52.0	49.50	p=0.0250	

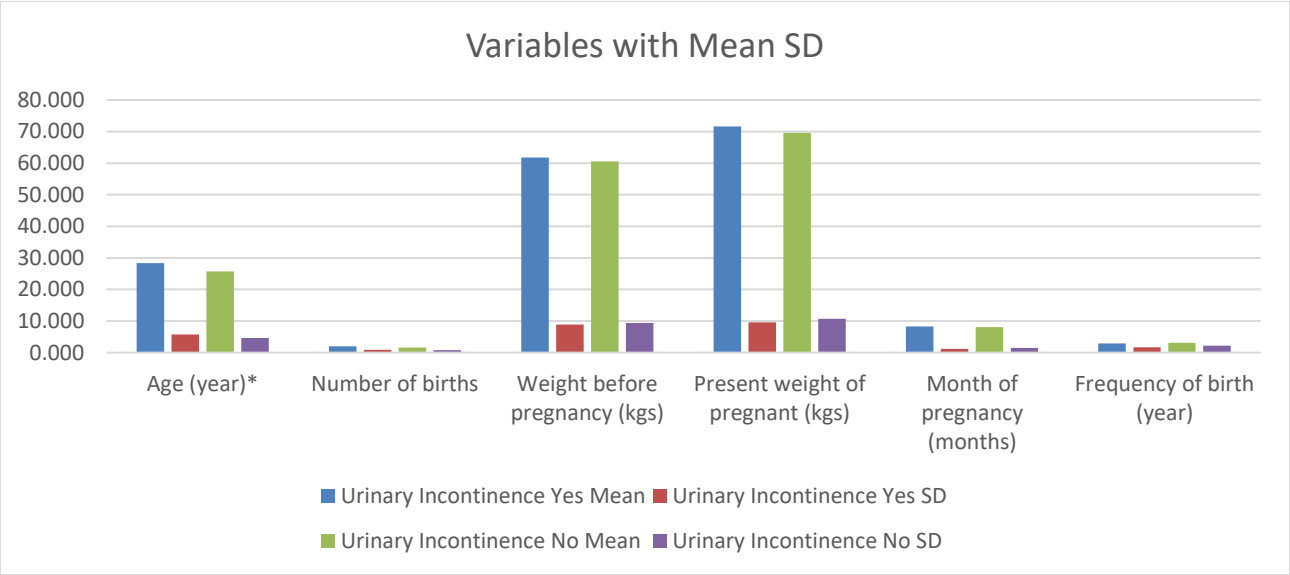
Origin	Village	56.0	40.30	83.0	59.70	N-Sig	1.2230 (0.5260-2.8460)
	District or city	147.0	40.50	216.0	59.50		
Chronic system disease	Affirmative	48.0	41.40	68.0	58.60	N-Sig	1.4400 (0.6560-3.1600)
	Negative	155.0	40.20	231.0	59.80		
Excretory system disease	Affirmative	63.0	56.30	49.0	43.80	X2=14.9640	1.7290 (0.8160-3.6660)
	Negative	140.0	35.90	250.0	64.10	p=0.000	
Respiratory system diseases	Affirmative	24.0	57.10	18.0	42.90	**X**2=4.5800	2.1750 (0.7710-6.1370)
	Negative	179.0	38.90	281.0	61.10	p=0.0320	
Mode of earlier birth	Section Ceaserian	68.0	33.50	135.0	66.50	**X**2=22.3110	3.9380 (1.8990-8.1670)
	Spontaneous birth	103.0	58.20	74.0	41.80	p=0.000	
Episiotomy (n=303)	Affirmative	68.0	58.60	48.0	41.40	N-Sig	0.7830 (0.3710-1.6550)
	Negative	98.0	52.40	89.0	47.60		
UI in earlier pregnancy	Affirmative	52.0	89.70	6.0	10.30	**X**2 =65.950	8.675 (0.888-84.714)
	Negative	151.0	34.00	293.0	66.00	p=0.000	

Total 40.40% females stated urinary incontinence and 11.60% urinary incontinence complaints were in the previous pregnancies. Total 78.80% pregnant females found with stress incontinence, 14.80 were available with mixed type urinary incontinence and 6.40% pregnant females were available with urge urinary incontinence. Only 21.30% females with pregnancy were aware about the urinary incontinence and 60.0% females got the information from doctors. The most frequent impacts of the QoL of the life of urinary incontinence among females with pregnancy were disturbed routine activities (75.30%), feelings of discomfort (73.50%), prevention to take liquids (52.60%), no sex desire (47.0%) and isolation from society because of issues due to urinary incontinence (35.80%). The risk factors linked with the UI are available in Table-1.

Variables	**Urinary Incontinence**				Significant Test	OR (95% Cl)**
	Yes		No			
	Mean	SD	Mean	SD		
Age (year)*	28.300	5.730	25.690	4.660	t=5.5990 p=0.000	1.0880 (1.0010-1.1830)
Number of births	1.970	0.850	1.610	0.790	t=4.2930 p=0.000	1.3210 (0.7950-2.1930)
Weight before pregnancy (kgs)	61.810	8.910	60.520	9.380	N-Sig	0.9310 (0.8430-1.0280)
Present weight of pregnant (kgs)	71.590	9.620	69.590	10.720	t=2.0430 p=0.0420	1.0420 (0.9530-1.1400)
Month of pregnancy (months)	8.250	1.150	8.090	1.500	N-Sig	0.9690 (0.7350-1.2770)
Weight of earlier newborn (grs)	3412.630	375.710	3246.660	559.940	t=3.2890 p=0.0010	1.0010 (1.0010-1.0020)
Frequency of birth (year)	2.950	1.660	3.120	2.210	N-Sig	1.0250 (0.8280-1.2690)

*Mean and SD; ** Adjusted Values for some variables. Cl, confidence interval; OR, odds ratio.





The association was available among UI and age of the female, number of the child births, weight of the female with pregnancy, diseases of excretory system, weight of the new baby, their profession as well as UIs in previous pregnancies.

DISCUSSION:

Total 40.40% females with pregnancy stated urinary incontinence. In the past research works, the frequency of the UIs at the time pregnancy was

varying from 32.0% to 60.0% [4, 10, 11, 20, 21]. In current study, the rate of stress urinary incontinence was much higher than the other types of urinary incontinence. Wesnes [21] concluded that occurrence of urinary incontinence enhanced from 26.0% prior the start of pregnancy to 58.0% in 30th week. Many case studies have found it as an autonomous factor of risk for urinary incontinence after delivery [22, 23] and in later part of life [24, 25]. Urinary incontinence initiating prior or at the time of pregnancy has association with the urinary incontinence after the pregnancy [4]. Viktrup [22] concluded that 4.0% females who got admission due to stress urinary incontinence before the pregnancy & these symptoms developed in 32.0% females at the time of pregnancy & stress urinary incontinence developed in 7.0% after the birth. Foldspang [26] followed total 1232 females from 1-5 years after delivery, among them 16.0% had UI of antenatal UI, 67.0% had urinary incontinence of postpartum. In current case work, the frequency of the presence of urinary incontinence was much similar to the outcomes of other works [4, 21].

The problem of UI has many negative impacts on the QoL of the high aged pregnant females [2, 9]. It causes the social isolation of the females [11]. Fultz & Herzog [27] concluded that female with urinary incontinence are always worry, isolated and anxious as compared to the other females. Kocak [18] stated that 62.40% females were available with at least one issue of their social life. Oh [28] concluded that there is a relation of QoL with the severity, type & frequency of urinary incontinence. Most of the females (87.10%) have no information of pelvic floor muscles exercises. The most beneficial therapy for the stress urinary incontinence id the practice of the exercises of pelvic floor muscles at the time of pregnancy period [20]. The factors associated with urinary incontinence are age of the pregnant female, more than one child in single pregnancy, delivery through vagina & instrumental delivery [10, 26] but McKinnie [29] discovered that cesarean has no ability to lower the danger of urinary incontinence.

CONCLUSION:

The findings of this case study conclude that females should be aware to protect themselves from the problems of urinary incontinence before the start of the pregnancy. This case work is very important because it evaluates the risk factors of urinary incontinence in our pregnant females. Further studies can provide detailed information to describe the relationship of urinary incontinence with other variables.

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