RISK FACTORS ASSOCIATED WITH STRESS INCONTINENCE IN SECOND PREGNANCY

1. Dr. Aisha Ghafoor, UHS-Lahore, Pakistan
2. Dr. Anam Raza, Mahmood Physiotherapy Clinic, RYK, Pakistan
3. Dr.Urooj Malik, Mahmood Physiotherapy Clinic, RYK, Pakistan
4. Dr. Talha Mansoor, Senior Lecturer, Superior University, Pakistan
5. Dr. Tayyaba Kiran, Kulsum International Hospital, Islamabad, Pakistan
6. Dr. Ghulam Abbas, Physiotherapist, THQ Darya Khan, Pakistan
7. Dr.Sobia Javaid, Physiotherapist, TTS, Pakistan

INTRODUCTION:

Stress incontinence is a condition when bladder leaks urine during exertion or any physical activity like coughing, sneezing, lifting heavy objects , exercise etc. it occurs when the bladder controlling muscles not working properly. Both urethra and bladder are surrounded by muscles called pelvic floor muscles. From bladder through urethra the urine flows outside and this opening of urethra is surrounded by a sphincter which prevents urine leakage (webmed, 2005-2016). If these muscles became weak or not work properly, unwanted urine may flow and it is not concerned with psychological stress (Mayo foundation 1998-2017).

There are three main contributing muscles which form pelvic floor muscles, these muscles are: levator ani muscles, coccyges muscles, fascia around the muscles, levator ani muscles performed special role during childbirth in cervical dilatation , due to role of these muscles in supporting vagina, urethra, and anal canal a number of problems could occur if any injury to these muscles happen and stress incontinence is one of them (Sophie Fidoe, 29 January 2017).

There are different causes of pelvic floor muscle weakness, for.eg: childbirth through vaginal delivery, some medications, injury of urethra , nerve damage , urinary tract infections , obesity , age, smoking, (KM Luber, 2004). Other risk factors which may contribute to stress urinary incontinence includes, estrogen depletion, diabetes, childhood nocturnal diuresis, race, loss of fecal control, delirium, less intake of fluid, stressful physical activity, environmental hurdles or barriers, stroke, impaired cognition, immobility, pelvic floor muscle weakness, pregnancy, medications caffeine, alcohol, diuretics etc. (mark deutchman,6 December, 2005). The major

contributing risk factor of urinary incontinence is childbirth through vaginal delivery and the risk increases as the number of deliveries increases.

LITERATURE REVIEW:

A cohort study done by Solans et al. (2010) in which he estimate frequency, severity and to identify risk factors of stress incontinence, he measured the cumulative incidence rate as 39.1%. The severity of stress incontinence and its effectson daily life was moderate. He described age, family history, and body mass index as contributing factors for developing stress urinary incontinence during pregnancy. He described the lifestyles could be contributing risk factors for stress urinary incontinence and also vaginal delivery specially leads to stress incontinence.

Peyrat L et al (2002) studied the prevalence and also risk factors of incontinence among middle and young aged women. Stress urinary incontinence was considered more prevalent and the risk factors increases with increase in age. The most frequent risk factors are obesity, hysterectomy, postpartum incontinence and spontaneous vaginal delivery. So a high prevalence of stress urinary incontinence viewed among middle and young aged women with most frequent gynecological and obstetric events as risk factors.

Gyhagen M et al (2013) done a cohort study and compared the effect of normal vaginal delivery with caesarean section on bothersomeness of subtypes prevalence and severity of stress urinary incontinence 20 years after delivery, the results shows that all the subtypes are more prevalent in vaginal delivery. Moderate to severe stress urinary incontinence are more common in vaginal delivery as compared to caesarean section and bothersome urinary incontinence were more seen after 20 years of one vaginal delivery as compared to caesarean delivery.

MATERIALS AND METHODS:

This was a Case control study conducted at Allied hospital Faisalabad, Aziz Fatima hospital Faisalabad, National hospital Faisalabad and Shifa hospital Faisalabad in 6 months with sample size of 58. Convenient Sampling Technique was used

RESULTS:

Table. 1 Comparison of Data between 2 Groups

Sr. No	Variables	Group 1(with Symptoms) n=29	Group 2(without Symptoms) n=29
1	**Age (y)**		
	21-30years	21	22
	31-40years	8	7
2	**Socio-Economic Status**		
	Low	8	9
	Middle	17	12
	High	4	8
3	**Occupation**		
	Job	18	18
	Others	11	11
4	**Urge to urinate**		
	Yes	9	5
	No	20	24
5	**Incompetency**		
	Yes	29	2
	No	0	27
6	**Protection**		
	Yes	14	0
	No	15	29

Table. 2 Comparison of Data between 2 Groups

Sr. No	Variables	Group 1(with Symptoms) n=29	Group 2(without Symptoms) n=29
7	**Day Time Frequency**		
	1-10	11	14
	11-20	18	15
8	**Nocturia**		
	1-2	17	11
	3-5	7	4
	>6	5	14
9	**Type of Delivery**		
	Vaginal	22	24
	Episotomy	7	5
10	**BMI**		
	Underweight	3	8
	Normal	4	16
	Overweight	22	5
11	**UTI**		
	Yes	28	10
	No	1	19
11	**Medications**		
	Yes	10	4

	No	19	25

DISCUSSION:

The study aims to explore the stress inducing factors among females, during the third trimester of second pregnancy. The study has conducted the analysis of 299 females found to have stress and 29 females without stress. Both of the groups have examined in their risk factors which are hypothesized to be associated with stress among females. Analysis has explored the relationship or prevalence of the risk factors among both groups. High numbers of risk factors have shown to be associated with stressed females or females who experience inconsistencies in stress during their third trimester of second pregnancy.Discussion of the results shown above includes the consistency of the results with the researchers done before. Literature added at the beginning has supported the hypothesis to be developed on these grounds. Results have shown that females with the symptoms are younger than the females without the symptoms and according to the studies mentioned in the literature, results are consistent with the previous studies. It has found that socioeconomic status has not any relationship with the stress as females without symptoms belong to all the socio-economic status as compare to the females whohas stress belongs to the middle class mostly (Borders, et al., 2017).

Results are not completely consistent with the studies done before. Rather it has found that there is no difference in occupation, activities to diagnose, urge to urinate and in competencies. These are the results which are consistent with the studies and reject the null hypothesis. These factors are related to the physical symptoms a compare to the

psychological symptoms of females, in their third trimester of second pregnancy (McCarthy, Leamon, Finnegan, & Fassbender, 2017).

Results regarding Protection have shown that there is a relation between protective behavior and stress. These results are also consistent with the researchers done before. As behavioral treatments can lead to the psychological impacts on the females, as results indicated over protected behaviors of caregivers may induce more stress among the females. Another variable „daytime frequency" prevails more in stressed females as compare to the females who does not have stress. These results are consistent with the hypothesis as well as with the previous studies. Nocturia is more experienced by females who have its experience in the frequency of 1-2. Studies have described almost similar frequency among the females who are stressed in U.S. This shows the consistent results (McCarthy, Leamon, Finnegan, & Fassbender, Opioid dependence and pregnancy: minimizing stress on the fetal brain, 2017).

Type of delivery was found to determine the stress level among the Asian women, but results showed inconsistent with the studies. Possible reasons may include the knowledge of the delivery type beforehand. High Body mass index found to have associated with the stress which shows consistent results as described in the literature above. Constipation found to have the significant impact on stress as all the females who have stress symptoms experience stress. These showed consistent results of studies explore the impact of constipation on stress (Guan, Li Ningb, Lian, Liub, & Ng, 2016).

Urinary tract infection has also found to be associated with stress this may be due to irritability symptom as discussed in the literature. These are consistent with the studies found irritability associated with stress. There is a high frequency of fluid intake

among the females who are stressed, but difference or comparison does not show much difference among the two. The last variable explores the prevalence of medication intake has found that stressed females comparatively tend to take more medications as compare to the females who are not stressed. The difference may be associated with other factors. The study aimed to explore the prevalence of symptoms by literature explored at the beginning, and it has found that most of the variables have shown the consistent results.

Conclusion:

It has been determined that the details of the risk factors have been analyzed in this study. It could be seen that questionnaire involve different types of questions such as age, Status, Occupation, activities to diagnose, urge to urinate, Incompetency, Protection, daytime frequency, Nocturia, type of delivery, body mass index, Constipation, urinary tract infection, type of fluids intake and medications. Looking at the topic of the study, it has been determined that the contributing factors of stress incontinence in the second

pregnancy are the main question that isneeded to be addressed here. Moreover, one of the influential parts is that all type of results has shown in the prescribed manner. Here

the parallel analyses have been done so that the patients with the symptoms and the patients without the symptoms could be seen in a clear manner. For this purpose, the frequencies and the descriptives have been shownso that the analysis could be seen in a better manner.

Here the histogram has been indicated for the each variable, and the frequency has discussed as well. The reason is the clear picture could be depicted in a way that which patients are facing the stress incontinence in second pregnancy and what are the reasons behind that. Therefore a clear picture has been depicted, and this shows that the risk is greater and they are needed to be controlled in this manner. Therefore the external and internal factors that have been involved in this process have been shown, and the results depict the stress incontinence in second pregnancy among females.

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