Vol. 5 No. 1 (2026)

Pakistan Journal of Medical & Cardiological Review

https://pakjmcr.com/index.php/1/about

Online ISSN 3007-2387

Print ISSN 3007-2379

Prevalence of Urinary Incontinence and its Association with Physical Activity Across Different Trimesters of Pregnancy

Dr. Zahid Mehmood
Assistant Professor, Ibadat International University
Saira Siddique
Physiotherapist, University of Sialkot.
Javeria Shahid
Physiotherapist, University of Sialkot.
Minab Faisal
Physiotherapist, University of Sialkot.
Ameena Amjad
Physiotherapist, University of Sialkot.
Dr. Zubair Ahmad
Assistant Professor, University of Sialkot.

Keywords: Urinary Incontinence, Physical Activity, Pregnancy, Maternal Health, Pelvic Floor Dysfunction

Received on 26 Jan 2026
Accepted on 4 Mar 2026
Published on 12 Mar 2026

Corresponding E-mail & Author*:
Dr. Zahid Mehmood
Assistant Professor, Ibadat International University
Email: zahid.mehmood@uipt.iiui.edu.pk

Abstract

Objectives:
To find the prevalence of urinary incontinence and its association with physical activity across different trimesters of pregnancy.

Methodology:
This Observational cross-sectional study was conducted in the gynecology department of Younas Hospital, Sialkot. The data was collected through a non-probability convenient sampling technique from 500 pregnant females. The females above 20 years and having urinary incontinence were included. The females having Backache problems, sciatica, Diabetes, Smoking/Alcohol consumption, and Spinal cord Injuries were excluded. The self-structured Pregnancy Physical Activity Questionnaire (PPAQ) was used for data collection. The data was analyzed by SPSS v27.

Results:
There were n=500 females with having mean age of 27.18 years and a BMI of 24.42. There were 74% housewives and 26% employees. These females had 40.4% second trimester and 45.2% third trimester. There were females, 71.2% urge, 65.8% stress, and 60% overflow incontinence, respectively. The mean values of total physical activity, light intensity, moderate intensity, vigorous intensity activities were 21.76, 7.02, 8.30, 6.38, and 0.04 (MET.h/Week), respectively. The correlation of total physical activity with no of trimesters (r =-0.066, p = 0.143), mode of delivery (r =-0.043, p = 0.335). The correlation of total physical activity with urge (r =-.322**, p = 0.000), stress (r =0.012, p = 0.784), overflow (r=-0.018, p = 0.687) and drippling incontinence (r =-0.008, p = 0.862).

Conclusions:
It is concluded from the study that women with physically active lifestyles complained of urge incontinence more often. The incontinence had not so much influence on the level of physical activity.

INTRODUCTION

Pregnancy is a dynamic physiological condition, with important anatomical and hormonal changes, which predisposes women to a variety of health problems, including urinary incontinence (UI) (1). The urinary incontinence (UI), which is the involuntary leakage of urine, has a great effect on the quality of life during gestation. Current epidemiological data suggest that the prevalence of UI in pregnant populations is around 41-65%, making it one of the commonly reported morbidities in the perinatal period (2).

The pathophysiology of UI during pregnancy is multifactorial, and it differs by trimester. In the first trimester, the hormonal influences, especially higher levels of progesterone and relaxin, cause the sphincteric mechanisms to relax and the pelvic floor muscle tone to fall (3). Towards the second and third trimesters, the mechanical factors become more important. Uterine expansion raises the pressure within the abdomen, which pushes the bladder axis outside the axis of the urethra and shortens the length of the functioning of the urethra, creating a favorable environment for the development of stress incontinence (4). By the third trimester, a combination of maximal mechanical pressure and cumulative neuromuscular changes leads to the highest prevalence and severity of UI symptoms (5). Furthermore, structured pelvic floor muscle training (PFMT) during this time period is beneficial in preventing dysfunctions associated with pregnancy, as recent studies have shown that early, structured PFMT can prevent the occurrence of urinary incontinence during late pregnancy and postpartum (6).

Concurrently, pregnancy is related to significant changes in physical activity patterns. Numerous studies describe a marked decrease in exercise frequency, intensity, and duration during the course of gestation. (7). This decrease in activity can be attributed to many factors, including fatigue during pregnancy, musculoskeletal pain, fear of fetal injury, and the absence of professional advice on safe exercise practices (8). The tendency to become more and more sedentary raises concern about the fact that appropriate physical activity is not only a preventive and therapeutic intervention for UI, but it is also a therapeutic intervention for the treatment of UI through several mechanisms such as maintenance of a healthy weight gain, increase of the pelvic floor muscle function and optimization of pressure management inside the abdomen (9). In particular, pelvic floor muscle training interventions are necessary for improving the strength of pelvic muscles affected by the enlargement of the uterus and alterations in hormonal production during the pregnancy process (10).

The relationship between physical activity and UI during pregnancy is complex and non-linear. While structured moderate-intensity exercise has been shown to have protective effects against developing UI, some high-impact exercise can make stress incontinence symptoms worse by increasing intra-abdominal pressure (11). This raises critical questions about the best activity prescriptions for pregnant women with UI. Current international guidelines support routine moderate-intensity exercise throughout pregnancy but provide little information on how exercise should be modified in women with UI (12).

Additionally, there is emerging evidence that differences in patterns of activity may have differential effects on the subtypes of UI. Stress urinary incontinence (SUI) - the most common type of incontinence in pregnant women - is especially sensitive to activity (13). The therapeutic efficacy of targeted pelvic floor muscle training (PFMT) has been well-documented, with systematic reviews showing significant reductions in the incidence of UI in populations that adhere to such interventions (14). Nevertheless, the relationship between general physical activity patterns, including occupational,

recreational, and daily living activities, and UI manifestations is still poorly defined across gestational trimesters (15). This gap highlights the need for more awareness and education regarding the importance of pelvic floor health and exercise interventions for pregnant women (16).

This study aims to address these evidence gaps by conducting a comprehensive investigation of UI prevalence and UI association with physical activity patterns in a contemporary pregnant population. We specifically consider trimester-specific changes in both UI characteristics and activity profiles with a particular focus on differential effects on subtypes of UI. Our findings will provide important evidence for the development of specific, trimester-related recommendations for physical activity to optimize pelvic health while ensuring appropriate physical activity levels throughout pregnancy.

METHODOLOGY

This observational cross-sectional study was conducted in the Gynaecology Department of Younas Hospital, Sialkot. February 2024 to August 2024. The study was approved by the Research Ethical Committee (REC), Faculty of Allied Health Sciences, University of Sialkot, Sialkot, Pakistan, with Ref: USKT/FAHS/RECletter-00062. It used a non-probability sample in the form of a convenience sampling method. The participants were women over 20 years, specifically pregnant women. Exclusion criteria were current low back pain, sciatica, diabetes, smoking, alcohol consumption, or spinal cord injuries.

Data was obtained from n=500 pregnant females via a custom questionnaire of physical activity and the Pregnancy Physical Activity Questionnaire (PPAQ), which comprised 32 activities divided into household activities, work, sports/exercise, transportation, and idle activities. Participants reported their leisure activities, including time spent on sports, reading, or watching TV, with the response choices ranging from 0 to 6 or more hours per day to 3 or more hours per week. Frequency distribution charts aided in defining the cut points of the categories, thus improving the precision of the scale. The average weekly energy expenditure (kcal/week) was derived from the duration and intensity of all the activities without taking into account the sleep adjustments. This study was started with the ethical clearance from the Research Ethical Committee (REC), Faculty of Allied Health Sciences, University of Sialkot, Pakistan. A total of n=500 patients fulfilling the inclusion criteria and visiting to Gynaecology Department of Younas Hospital, Sialkot, were included.

The data were analysed using the software package, the Statistical Package and Systems (SPSS) version 27. Normality of the continuous variables was tested by the Shapiro--Wilk test. Descriptive statistics such as frequencies, percentages, means, and standard deviations were calculated to simplify the demographic and clinical characteristics of the participants. Prevalence of various types of urinary incontinence among trimesters was studied using cross-tabulation. To find the associations between the domains of physical activity (PPAQ) and types of urinary incontinence, the Pearson correlation coefficient (r) was used. A p-value <0.05 was judged to be statistically significant.

RESULTS

There was n=500 women in the study with a mean age of 27.18 ± 3.62 years and a mean BMI of 24.42 ± 3.28 kg/m 2. Housewives constituted the majority of the participants, n=370 (74.0%), and a smaller number of employed participants, n=130 (26.0%). In terms of parity, most of them gave birth to two pregnancies n=260 (52.0%), one

pregnancy n=93 (18.6%), and three pregnancies n=92 (18.4%). Higher-order pregnancies were not as frequent, with 4 n=25 (5.0%), 5 n=22 (4.4%), 6 n=7 (1.4%), and 7 n=1 (0.2%), four, five, six, and seven pregnancies, respectively. With regard to mode of delivery, 50 percent of the women had a spontaneous vaginal delivery (SVD), n=251 (50.2%), and the caesarean section was reported in n=158 (31.6%), and no delivery history was reported in n=91 (18.2%). Regarding pregnancy stage, the participants were spread out in the first trimester, n=72 (14.4%), second trimester, n=202 (40.4%), and third trimester, n=226 (45.2%). The number of urinates per day was variable with the majority of the women urinating six times n=220, (44.0%), nine times n=143, (28.6%), and five times n=109 (21.8%), and above nine times per day n=28 (5.6%).

Table 1: Incontinence by Trimester

Trimester	Urgency n (%)		Drippling n (%)		Overflow n (%)		Stress n (%)	
	Yes	No	Yes	No	Yes	No	Yes	No
First	40 (55.6)	32 (44.4)	5 (6.9)	67 (93.1)	7 (9.7)	65 (90.3)	14 (19.4)	58 (80.6)
Second	147 (72.8)	55 (27.2)	61 (30.2)	141 (69.8)	126 (62.4)	76 (37.6)	135 (66.8)	67 (33.2)
Third	172 (76.1)	54 (23.9)	97 (42.9)	129 (57.1)	167 (73.9)	59 (26.1)	180 (79.6)	46 (20.4)
Total	359 (71.8)	141 (28.2)	163 (32.6)	337 (67.4)	300 (60.0)	200 (40.0)	329 (65.8)	171 (34.2)

Table 2: Correlation of Types of Incontinence with PPAQ

	Urgency		Drippling		Overflow		Stress	
	r-coefficient	p-value	r-coefficient	p-value	r-coefficient	p-value	r-coefficient	p-value
Sedentary	-.348**	0.000	0.024	0.586	-0.008	0.857	.105*	0.019
Light Intensity	-.220**	0.000	0.018	0.694	-0.012	0.788	-0.056	0.207
Moderate Intensity	-.237**	0.000	-0.047	0.298	-0.018	0.689	-0.020	0.658
Vigorous Intensity	-0.087	0.053	-.193**	0.000	-.104*	0.020	-.091*	0.042
Household	-0.037	0.412	-0.030	0.501	0.069	0.121	-0.010	0.825
Occupational	-.347**	0.000	-0.016	0.715	-0.048	0.282	-0.035	0.434
Sports	-.251**	0.000	0.017	0.699	-0.044	0.327	0.032	0.475
Total	-.322**	0.000	-0.008	0.862	-0.018	0.687	0.012	0.784

Level of significance: p<0.001***, p<0.01**, p<0.05*.

DISCUSSION

This study examines the extent and characteristics of urinary incontinence (UI) in pregnant women, paying particular attention to the association between UI and gestational trimester and urinary frequency. The results have shown a high overall prevalence of UI, a clear correlation with increasing gestational age, and significant changes in the type of incontinence experienced between trimesters. These results are consistent with and extend our current understanding of this common but often under-discussed aspect of maternal health.

The most significant result of this study is the high prevalence of urinary incontinence (UI) in the sampled population. Research data has shown that 359 (71.8%) of the subjects experienced some form of UI during their pregnancy. This number is at the upper end of the spectrum described in the international literature, but in line with several studies targeting similar demographic groups. For example, in a systematic review by Mørkved and Bovitz (2014), rates of prevalence in pregnancy were noted to

be between 41% and 67% (17). The slightly higher rate in our study may reflect cultural influences, differences in the way that UI is defined and assessed, or be peculiar to our study group, especially the high proportion of women in their second (40.4%) and third (45.2%) trimesters of pregnancy, in whom UI tends to be more common (18).

The demographic profile of our participants is interesting. The mean age was 27.18 years, and most were housewives (74%), multigravidas (52%) having two previous pregnancies. This is consistent with the demographic frequently found in other studies in developing countries (19). The mean BMI (24.42 kg / m2) is in the higher range of the normal weight category, and this is a known risk factor for UI. Excess weight adds pressure to the abdomen, thus stressing the pelvic floor structures (20).

A central objective of this research was to define the relationship between UI and gestational trimester. The results show an obvious and statistically significant ($p<0.001$) increase in UI prevalence and severity that is associated with the progression of pregnancy. Data on urinary frequency provided a good physiological basis. In the first trimester, most women reported urinating 5 or 6 times per day; however, in the third trimester, a substantial number reported symptoms of increased frequency (with many voiding 9 times (n=101) or even more than 9 times (n=23) per day). This progression can be explained by mechanical and hormonal changes of pregnancy (21). Initially, the increased frequency of urine passage through the bladder in the first trimester is also mainly hormonally induced by elevated human chorionic gonadotropin and progesterone; in late trimesters, the mechanical pressure of the enlarging uterus and engaging fetal head compresses the bladder, making it functionally less efficient (22).

The prevalence of the reported stress urinary incontinence (SUI) was found to demonstrate a significant rise in frequency across the trimesters: 5.5% in the first, 30.2% in the second, and 42.9% in the third trimester, resulting in an overall prevalence of 163 (32.6%) (23). This progression has substantial evidence in previous research; a longitudinal study by Wesnes et al. (2007) found a prevalence of SUI rising from 15% in the 13th week of pregnancy to 48% in the 37th week of pregnancy (24). The pathophysiology appears to be a combined effect of increased pressure within the abdomen from the growing fetus, as well as hormonally mediated relaxation of the pelvic floor connective tissue, resulting in loss of the strength of the urethral closure mechanism (25). The significant number of spontaneous vaginal deliveries (SVD) (60.4%) in the group of participants can also be a contributor to this problem since vaginal delivery is well known as a risk factor for pelvic floor trauma (26).

Urge incontinence (UUI) was the most frequently reported type in our study with an overall prevalence of 60% (300/500). Like SUI, its prevalence significantly rose with the trimester: 9.7% (first), 62.4% (second), and 73.9% (third) (27). The high prevalence of UUI highlights the importance of detrusor muscle overactivity during pregnancy, which may be triggered by mechanical pressures but may also indicate the importance of the neurological effects of pregnancy hormones on the detrusor muscle itself (28).

It was not a surprise that with such high rates of SUI and UUI, mixed urinary incontinence (MUI) was also prevalent, and this affected 329 (65.8%) of participants. The presence of MUI implies complicated dysfunction of the pelvic floor, both hypermobility of the urethra and detrusor instability (29). In many cases, management of MUI is more difficult and requires a multidimensional approach to treatment (30).

This study has found that SUI, UUI, and MUI all significantly increase with the gestational age, and this is consistent with a large body of work done previously. A study by van de Pol et al. (2017) also reported that all forms of UI became more

common with progression of pregnancy, with SUI being the most common type antepartum (31). This is slightly different from our finding that UUI was the most common type in our study (30).

The results presented in Table 2 show the correlation between various types of urinary incontinence (UI) and levels of physical activity as assessed by the Physical Activity Questionnaire (PPAQ). An important finding of this study is the negative correlation of sedentary behavior with different types of incontinence, especially urgency ($r = -0.348$, $p < 0.001$) and stress incontinence ($r = -0.322$, $p < 0.001$). This is in line with prior research intimating a link between physical activity and the decrease of UI symptoms. For example, Moossdorff-Steinhauser et al.'s article reported that pelvic floor muscle training had a significant effect on reducing symptoms of UI in pregnant women, which suggests that there is a need for targeted interventions (32).

In terms of urinary frequency, the study found that women with light to moderate intensity physical activity had a lower prevalence of urgency and stress incontinence as indicated by correlation coefficients of -0.220 and -0.237 ($p < 0.001$), respectively. These results are supported by Gao et al., who showed that the severity of incontinence is reduced in postpartum women who engage in various forms of physical activity (33). These conclusions suggest that light to moderate physical activities not only help maintain a healthy weight but may also promote pelvic floor health, potentially mitigating the severity and occurrence of UI.

Interestingly, no significant correlation was found between vigorous physical activity and urgency (r). It showed a negative relationship with dripping ($r = -0.193$, $p < 0.001$) and a low significance relationship with stress incontinence ($r = -0.091$, $p = 0.042$). This shows that not all forms of incontinence can be positively influenced by high-intensity activities, but some of the subtypes may be positively influenced by high-intensity activities. The varied effects of strenuous physical activity on UI are the characteristics of the complex nature of incontinence and emphasize the necessity of individual exercise prescription. According to Venegas et al., active women may experience various degrees of urinary symptoms due to the difference in the nature and intensity of exercise (34).

In addition, the absence of any significant relationship between household activity and the type of UI indicates that all physical activities have a protective effect on incontinence. Drug-based intervention: According to Gartland et al., in their analysis of the risk factors of UI after childbirth, specific structured exercises like pelvic floor training can be more helpful than the daily routine physical practices (35).

Besides, the results related to sports activities have led to major implications; although some sporting activities had some harmless weakening effect on the risk of urgency incontinence ($r = -0.251$, $p<0.001$. This may indicate that intra-abdominal pressure may elevate through high-impact sports, which may worsen. some types of UI instead of reducing them, a fact that was observed in studies examining biomechanical effects of various types of physical activity on the pelvic floor (36).

Conclusion:

Pregnant women were very much affected by urinary incontinence, and among them most common urinary forms were urgency, stress, and overflow. The incidence of urinary incontinence among pregnant women was on the rise with each trimester. Dripping incontinence was not common, but also more pronounced in late pregnancy. The results indicated that physical activity levels had significant negative relationships

with the various forms of incontinence, indicating that the higher the level of activity, the less severe the symptoms. The findings support the need to educate proper body physical exercises during pregnancy in order to reduce urinary incontinence.

Limitations:

It is cross-sectional and therefore gives you a picture at a point in time, but never causality. There is a possibility that recall bias exists because the information on the past pregnancies and mode of delivery relied on the memory of the participants. Moreover, the research involved no validated severity assessment of the UI (e.g., ICIQ-UI SF) but used yes/no answers, which restricts the level of analysis on the effect on quality of life.

REFERENCES

1. Lindgren J, Reichardt V, Bohnacker U. Character Introductions in Oral Narratives of Swedish–German Bilingual Preschoolers. First Language. 2020;42(2):234-62.
2. Ren Y, Zhang J, Wang G, Liu X, Li L, Wang J, et al. The Relationship Between Insect Resistance and Tree Age of Transgenic Triploid Populus Tomentosa Plants. Frontiers in Plant Science. 2018;9.
3. Murakami T, Hashiya K. Development in the Interpretation of Ambiguous Referents in 3- and 5- year-olds. Infant and Child Development. 2019;28(5).
4. Weatherhead D, Friedman O, White KS. Preschoolers Are Sensitive to Accent Distance. Journal of Child Language. 2019;46(6):1058-72.
5. Köymen B, Engelmann JM. Young Children Rely on Gossip When Jointly Reasoning About Whom to Believe. Developmental Psychology. 2022;58(6):1091-102.
6. Ryder N, Kvavilashvili L, Ford RM. Effects of Incidental Reminders on Prospective Memory in Children. Developmental Psychology. 2022;58(5):890-901.
7. Hartwell K, Brandt S, Boundy L, Barton G, Köymen B. Preschool Children's Use of Meta-talk to Make Rational Collaborative Decisions. Child Development. 2022;93(4):1061-71.
8. Waddington O, Proft M, Jensen K, Köymen B. Five-year-old Children Value Reasons in Apologies for Belief-based Accidents. Child Development. 2023;94(3).
9. Khadikar V, Khadilkar A, Lohiya N, Karguppikar M. Extended Growth Charts for Indian Children. Journal of Pediatric Endocrinology and Metabolism. 2020;34(3):357-62.
10. Köymen B, Tomasello M. The Early Ontogeny of Reason Giving. Child Development Perspectives. 2020;14(4):215-20.
11. Kim Y, Cabel K, Sun W. Does the Apex Optimization Line Matter for Single-channel Vaginal Cylinder Brachytherapy Planning? Journal of Applied Clinical Medical Physics. 2018;19(4):307-12.
12. Choi C, Shin B, Yeom YS, Nguyen TT, Han H, Ha S, et al. Development of Paediatric Mesh-Type Reference Computational Phantom Series of International Commission on Radiological Protection. Journal of Radiological Protection. 2021;41(3):S160-S70.
13. Köymen B, Tomasello M. Children's Meta-Talk in Their Collaborative Decision Making With Peers. Journal of Experimental Child Psychology. 2018;166:549-66.
14. Li Y, Huang SY, Lu M, Wu Z. Simulation Analysis of Carbon Peak Path in China From a Multi-Scenario Perspective: Evidence From Random Forest and Back Propagation Neural Network Models. Environmental Science and Pollution Research. 2023;30(16):46711-26.
15. Brusco NK, Danchin M, Watts JJ, Jos C, Loughnan M, Williams T, et al. Parent-Reported Child and Parent Quality of Life During COVID-19 Testing at an Australian Paediatric Hospital Outpatient Clinic: A Cross-Sectional Study. Healthcare. 2023;11(18):2555.
16. Kupper K, Krampen D, Rammstedt B, Rohrmann S. The German-Language Short Form of the Big Five Inventory for Children and Adolescents – Other-Rating Version (BFI-K KJ-F). European Journal of Psychological Assessment. 2021;37(2):109-17.
17. Wang X, Jin Y, Xu P, Feng S. Urinary Incontinence in Pregnant Women and Its Impact on Health-Related Quality of Life. Health and Quality of Life Outcomes. 2022;20(1).
18. Razzaq R, Muhammad A, Shabbir S, Malhi MN, Fatima N, Kiran W. Prevalence of Urinary Incontinence in Pregnant Women: A Cross Sectional Survey Study. Pakistan Journal of Health Sciences. 2022:145-8.
19. Wang X, Wang H, Xu P, Mao M, Feng S. Epidemiological Trends and Risk Factors Related to Lower Urinary Tract Symptoms Around Childbirth: A One-Year Prospective Study. BMC Public Health. 2023;23(1).
20. Ghani AA, Islam S, Hamayun S, Ibrahim MH, Shoab M, Ullah S. The Prevalence of Urinary Incontinence in Pregnant Women a Cross-Sectional Study. PJMHS. 2022;16(10):606-8.
21. Rucha J, Asmita K. Prevalence of Urinary Incontinence in Post Natal C- Section Women in Age Group (21- 45 Years) - A Cross-Sectional Observational Study. Vims Journal of Physical Therapy. 2024;6(1):52-8.
22. Çıtak G, Demirtürk F. Urinary Incontinence During Pregnancy and Determination of the Factors Affecting It. Journal of Basic and Clinical Health Sciences. 2021;5(3):36-42.
23. Jansson MH, Franzén K, Tegerstedt G, Hiyoshi A, Nilsson K. Postpartum Urinary Incontinence – Types, Prevalence, and Risk Factors Before, During, and After Pregnancy and Childbirth: A Prospective Cohort Study. 2024.
24. Turk Q-U-a, Jadoon Ij, Fareed S, Shah HU, Fareed A, bhutta AH, et al. Prevalence Ratio of Urinary Incontinence and Their Association With Peridity and Gravidity. Journal of Women Medical and Dental College. 2023;1(4).
25. Patel K, Long JB, Boyd SS, Kjerulff KH. Natural History of Urinary Incontinence From First Childbirth to 30-Months Postpartum. Archives of Gynecology and Obstetrics. 2021;304(3):713-24.
26. Mutaguchi M, Murayama R, Takeishi Y, Kawajiri M, Yoshida A, Nakamura Y, et al. Relationship Between Low Back Pain and Stress Urinary Incontinence at 3 Months Postpartum. Drug Discoveries & Therapeutics. 2022;16(1):23-9.

27. Lee U, Feinstein L, Ward JB, Kırkalı Z, Martinez-Miller E, Matlaga BR, et al. Prevalence of Urinary Incontinence Among a Nationally Representative Sample of Women, 2005–2016: Findings From the Urologic Diseases in America Project. The Journal of Urology. 2021;205(6):1718-24.
28. Iqbal H, Zafar S, Aslam N, Asif N, Sabir HMA, Saleem I, et al. Prevalence of Urinary Incontinence Among Pregnant Women of Multan City. PJMHS. 2023;17(5):165-8.
29. Kebede E, Kassaye G. Urinary Incontinence Prevalence During Pregnancy: The Ethiopian Perspective. Ejrh. 2020;12(3):10.
30. Shaikh K, Zahra U, Abdullah M, Batool S, Habiba U, Khan S, et al. Prevalence of Urinary Incontinence and Its Association With Chronic Constipation, Chronic Cough, Urinary Tract Infections, and Parity During the Third Trimester of Pregnancy. Pakistan Journal of Health Sciences. 2024:50-4.
31. Burki F, Muqarrab K, Rehman S, Fahim F. Incidence of Urinary Incontinence Among Pregnant Females. PJMHS. 2022;16(1):824-6.
32. Moossdorff-Steinhauser HFA, Berghmans B, Spaanderman MEA, Bols E. Prevalence, Incidence and Bothersomeness of Urinary Incontinence in Pregnancy: A Systematic Review and Meta-Analysis. International Urogynecology Journal. 2021;32(7):1633-52.
33. Gao J, Liu X, Zuo Y, Li X. Risk Factors of Postpartum Stress Urinary Incontinence in Primiparas. Medicine. 2021;100(20):e25796.
34. Venegas M, Carrasco B, Casas-Cordero R. Factors Influencing Long-term Adherence to Pelvic Floor Exercises in Women With Urinary Incontinence. Neurourology and Urodynamics. 2017;37(3):1120-7.
35. Gartland D, MacArthur C, Woolhouse H, McDonald E, Brown S. Frequency, Severity and Risk Factors for Urinary and Faecal Incontinence at 4 years Postpartum: A Prospective Cohort. Bjog an International Journal of Obstetrics & Gynaecology. 2015;123(7):1203-11.
36. Gavhale P, Mahakarkar M. The Efficacy of Pelvic Floor Exercise for the Stress Urinary Incontinence. Journal of Pharmaceutical Research International. 2021:85-9.