

A Study to Assess the Knowledge Regarding UTI and Its Prevention among Adolescent Girls of Selected Schools in Lucknow, Uttar Pradesh

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Abstract: *Urinary Tract Infections (UTIs) are one of the most common infections people experience, particularly among women, but it also affects the child, adult, older people. They occur when bacteria- usually E. coli, which normally lives in the intestines- find their way into the urinary tract, causing inflammation and discomfort. Common symptoms include a burning sensation while urinating, frequent urges to urinate, cloudy or strong-smelling urine, and lower abdominal pain. In more severe cases, the infection can spread to the kidneys, leading to fever, chills, and back pain. While UTIs are usually treated effectively with antibiotics, the increasing problem of antibiotic resistance is making treatment more challenging in some cases. People with underlying health issues, weakened immune systems, or structural abnormalities in their urinary tract may be more prone to recurrent infections. Understanding the causes, recognizing the symptoms early, and promoting appropriate treatment are key to preventing complications. Ongoing research is focusing on better ways to diagnose, treat, and prevent UTIs- especially in light of growing resistance to standard medications. In this study, quantitative research approach was used and aim was to assess the knowledge and its prevention among the adolescent regarding the UTI and find out the association between the pre- test knowledge score in a selected demographical variable. The research design select for the study was descriptive research design. 100 sample were selected through the convenient sampling technique for the data collection. Demographical data and questionnaire were given to the adolescent girl to assess their knowledge. Result: Knowledge score mean was 11.92 and SD was 3.1162, out of 100 sample majority of sample 60 (60%) had average knowledge regarding the UTI and its prevention among the adolescent girl followed by 15(15%) who fell the category of poor knowledge and 25(25%) sample fell in the category of good knowledge. These study finding concluded that most of the adolescent girl had average knowledge regarding prevention of UTI without any intervention.*

Keywords: Prevention, knowledge, pre-test, SD

1. Introduction

UTI is a globally affected issue which can be leading cause of illness. UTI is most common in female rather than male. About 50-60% of female may suffer from UTI. At least once in their whole life span. Generally late adolescent and above 35-year age women can suffer from UTI. In United State approximately 7 million people visited hospital with the case of UTI annually. UTI incidence are reported at seasonal level. UTI infection is mostly occur in summer month and also in nadir (winter). As per WHO, it was estimated around 1 billion women will suffer from non- sexually transmitted urogenital infection and other infection like Bacterial vaginitis, Atrophic vaginitis, Yeast vaginitis. Women are usually gets infection due to shorter urethra UTI is second leading cause of morbidity about 8.3 million in year.

2. Materials and Methods

The study aims to assess the objective are-

- To assess the prevalence rate of UTI among adolescent girls of selected schools in Lucknow, Uttar Pradesh
- To assess the knowledge regarding UTI and its prevention among the adolescent's girl of the selected school of Lucknow.
- To find out the association between the knowledge score regarding UTI and its prevention among the adolescent girl with their selected demographic variables.

Hypothesis

- 1) H0 (Null Hypothesis) - There is no significant level of knowledge regarding UTI and its prevention among adolescent girl of the selected school of Lucknow, Uttar Pradesh.
- 2) H1 (Research Hypothesis) – There is a significant level of knowledge regarding UTI and its prevention among the adolescent girls of the selected school in Lucknow, Uttar Pradesh.
- 3) H2 (Associative Hypothesis) - There is a significant association between the level of knowledge and selected demographic variables among the adolescent girls.

3. Methods

In this study descriptive design, quantitative research approached was used.

The setting was selected in school Lucknow. School girls age group 10 -19 selected as the samples. non probability purposive sampling technique was used to select 100 samples.

Criteria of sample selection

Inclusive criteria-

- Adolescent girl present during the time of sampling.

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- Adolescent girl who are willing to participate and provide informed consent.
- Adolescent girl who have ability to communicate and understand.

Exclusive criteria-

- Adolescent girl who are not willing to participate.
- Adolescent girl who are absent on the day of data collection.

4. Results and Discussions

First objective - To assess the prevalence rate of UTI among adolescent girls of selected schools in Lucknow, Uttar Pradesh.

Distribution of UTI according to their age group depicts that the highest percentage (45%) of 45 UTI were in the age group of 13-15 years. The highest no. of 82 (82%) UTI were Hindu. The highest no. of 46 (46%) of the UTI were living in a nuclear family. Most of 69 (68%) UTI were residing in

the urban area. Majority of 33 (33%) UTI were Primary school education. Majority of 49(49%) UTI were earning less than 20,000/month. Majority of 69 (69%) adolescent girl was never affected.

Second objective - To assess the knowledge and its prevention among the adolescent girl of the selected school in Lucknow.

The data analysis showed that the knowledge regarding UTI among the adolescent girl 15 (15%) had poor knowledge and 60 (60%) had good knowledge and 60 (60%) had Average knowledge regarding UTI among adolescent girls.

Third objective- To find out the association between knowledge score regarding UTI and its prevention among the adolescent girls with selected school in Lucknow.

The data analysis showed the association between knowledge score of UTI among adolescent girls (10-19 years) with their demographic variables.

S. No	Demographic Variable	Poor	Average	Good	Obtained Value	Table Value	Degree of Freedom	Inferential
1	Age							
	a. 10-12 year	5	25	0	0	29.652	6	S
	b. 13-15 year	4	14	18				
	c. 16-18 year	4	3	6				
	d. 19-20 year	2	0	0				
2	Religion				0.0068	7.3137	6	S
	a. Hindu	7	58	19				
	b. Muslim	2	9	5				
	c. Sikh	0	0	0				
	d. Christian	0	0	0				
3	Type of family				0.008	11.2582	6	S
	a. nuclear family	4	31	10				
	b. Joint family	6	26	11				
	c. Extended family	5	3	3				
	d. Beanpole family	0	1	0				
4	Residence				0	19.3026	3	S
	a. Urban	12	41	16				
	b. Rural	3	19	9				
5	Mother education				0.0212	5.3065	6	NS
	a. Illiterate	1	17	4				
	b. Primary school education	5	21	6				
		3	8	6				

The study shows that there was statistically no significant association between the level of knowledge with some demographic variables like mother's education, ever affected and rest of are significant.

5. Conclusion

Nursing can be described in as both an art and science: a heart and mind. At its heart lie a fundamental respect for the human dignity and an institution for a patients need. This is supported by the mind, in the form of rigorous core learning. The present study was conducted to assess the knowledge regarding UTI and its prevention among the adolescent girls in selected school of Lucknow.

The study described that the majority of the girls had adequate knowledge regarding UTI.

The study also depicts that there was a significance association between the level of knowledge with selected demographic variable

The finding shows that the majority of the school going adolescent Girl had inadequate knowledge regarding UTI hence the curriculum need to include yoga, exercise for the health benefits to the school adolescent girls. The befits of this study is that, by participating in the study, the student can become aware their existing knowledge regarding UTI.

References

- [1] IP Journal of in nutrition ; metabolism and health science (<http://www.ipinnovative.com/open-access=journal>)
- [2] Moro. C. Phelps cranberry juice, cranberry tablet, or

- liquids therapies for urinary tract Infections: A systematic review and network Meta- analysis. *European urology focus*, 10 (6), 947-957 (<https://doi.org/10.1016/j.euf.2024.07.002>)
- [3] Hooton, T. M. Uncomplicated urinary tract infection. *The New England Journal of Medicine*, 366(11), 1028–1037. Sharma D, Grover N. A study to assess the effectiveness of structured teaching program on knowledge regarding urinary tract infection among adolescent girls. *International Journal of Advances in Nursing Management*. 2016;4(3):229–32.
- [5] Grigoryan, L., Trautner, B. W., & Gupta, K. (2014). Diagnosis and management of urinary tract infections in the outpatient setting: a review. *JAMA*, 312(16), 1677–1684. <https://doi.org/10.1001/jama.2014.12842>
- [6] Fakhria, J. M., Salma, K. J., & Haydaite, A. (2017). Prevalence and associated factors of urinary tract infection among female students in University of Babylon, Iraq. *Research Journal of Pharmacy and Technology*, 10(6), 1821–1825. <https://doi.org/10.5958/0974-360X.2017.00321.2>
- [7] Vyas, S., Varshney, D., Sharma, P., Juyal, R., Nautiyal, V., & Shrotriya, V. P. (2015). An overview of the predictors of symptomatic urinary tract infection among nursing students. *Annals of Medical and Health Sciences Research*, 5(1), 54–58. <https://doi.org/10.4103/2141-9248.149790>
- [8] Sapkota, A., Aryal, B., Koirala, P., & Banjara, M. R. (2020). Prevalence of urinary tract infection among school-going adolescent females. *MicroMedicine*, 8(2), 76–83. <https://doi.org/10.5281/zenodo.4288880>
- [9] Villafañe-Ferrer LM, Pinilla-Pérez M, Giraldo-Reyes D, Martínez-Ramos AR, Lastre- Machado K. Urinary Tract Infections in College and Non-College Women from Colombia. *P R Health Sci J*. 2019 Jun;38(2):97-101. PMID: 31260553
- [10] Johnny V F, Menon VTK, Georgy S, Saju CR, Jini MP. Prevalence of recurrent urinary tract infections and its associated factors in female staff of reproductive age group in a medical college in central Kerala: a cross-sectional study. *BMC Infect Dis*. 2025 Feb 25;25(1):276. doi: 10.1186/s12879-025-10634-x. PMID: 40000942; PMCID: PMC11863663.