

**“AN EXPLORATORY STUDY TO ASSESS THE KNOWLEDGE ABOUT THE ADOLESCENT GIRLS REGARDING PREVENTION OF URINARY TRACT INFECTION IN SELECTED URBAN AREAS OF PUNE CITY.”**

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**ABSTRACT**

A urinary tract infection (UTI) is caused by bacteria that invade and multiply in the urinary tract (the kidneys, ureters, bladder, and urethra). Most bladder or urethral infections are urinary tract infections. A urinary tract infection may be more likely in those who have diabetes, hormonal abnormalities, spinal cord damage, enlarged prostates, or kidney stones. Other risk factors include receiving radiation therapy or pelvic surgery, taking specific medications (such as cancer treatments), or using a catheter to empty the bladder. Especially among women, urinary tract infections are prevalent. As a result, this study aimed to assess the knowledge about adolescent girls regarding prevention of UTI in selected urban areas of Pune city and to associate its findings with selected demographic variables. The study employed a quantitative research approach, with a non-experimental descriptive design under non-probability purposive sampling procedures. A questionnaire containing 20 sets of questions was formulated and under the process of content validity, the questions were modified. Reliability demonstrated a high relevance of 0.9. The pilot study found that the investigation was easily feasible. Majority 47% of samples were from 16-18 years of age, majority 60% of samples were in 9th to 12th std, majority 63% of samples were from nuclear family, majority 42% of samples had poor knowledge, 38% of samples had average knowledge and 20% of samples had good knowledge. Significant association was found between age, anyone in the family is from medical field with level of knowledge since p-value was less than 0.05 level of significance and no significant association was found between education, family status, Anyone in the family had UTI in their lifetime and Have you heard about urinary tract infection with level of knowledge; since p-value was more than 0.05 level of significance.

**Keywords** Assess, Knowledge , Adolescent Girls, Prevention, UTI

**INTRODUCTION**

A urinary tract infection (UTI) is caused by bacteria that invade and multiply in the urinary tract (the kidneys, ureters, bladder, and urethra). Most bladder or urethral infections are urinary tract infections. The presence of discomfort or burning while urinating, murky or disagreeable-smelling urine, blood in the urine, the urge to urinate frequently or immediately, lower back or abdominal pain, a fever, chills, and weariness are all possible signs and symptoms. A urinary tract infection may be more likely in those who have diabetes, hormonal abnormalities, spinal cord damage, enlarged prostates, or kidney stones. Other risk factors include receiving radiation therapy or pelvic surgery, taking specific medications (such as cancer treatments), or

using a catheter to empty the bladder. Especially among women, urinary tract infections are prevalent.<sup>1</sup>

Ages 10 to 19 are considered adolescent according to the World Health Organisation. From dependent infancy to independent adulthood, there is a transitional time. This is the earliest age at which any type of medical intervention can stop morbidity in later life. UTI is a widely recognised condition that affects more women than men. UTI symptoms can range from Preventing urinary tract infections (UTIs) can be achieved through various strategies: Stay Hydrated: Drink plenty of water to help flush bacteria from your urinary tract. Urinate Regularly: Don't hold in urine for extended periods; empty your bladder when you feel the need. Wipe Front to Back: After using the toilet, wipe from front to back to avoid spreading bacteria from the anus to the urethra. Good Hygiene: Keep the genital area clean and dry, and avoid using harsh soaps or douches that may disrupt the natural balance of bacteria. Empty Bladder Before and After Sex: Urinating before and after sexual activity can help flush out bacteria that may have entered the urethra. moderate voiding discomfort to bacteraemia, sepsis, or even death, and they can be either asymptomatic or symptomatic. 25% of the most typical bacterial infections are UTIs.

### **NEED FOR STUDY**

Having a urinary tract infection during adolescence can be quite uncomfortable and prevent students from attending class. Poor menstruation and sexual hygiene, lack of clean restrooms, and inadequate water all increase a young girl's risk of developing UTI. We must teach our girls the importance of proper hygiene and hydration. All public areas, including schools, should have bare-bones, spotless restrooms. Urine testing should be done on all expectant mothers because UTIs during pregnancy can cause major difficulties. Despite initially appearing benign, repeated and persistent UTI can harm kidneys and potentially cause renal failure in the long run. Therefore, they should be handled quickly and carefully.<sup>3</sup>

Although many school-going adolescent girls are unaware of the risks, there are significant information gaps around UTI. Lack of awareness of personal hygiene practises, symptoms, and risk factors may lead to undiagnosed UTI cases that, if left untreated, would likely progress to major urinary and genital tract issues. This necessitates the urgent necessity for regular educational conversations that address these gaps.

The students do not have a good understanding of the long-term implications of UTIs. To reduce the miseries of morbidity connected to UTIs, awareness programmes should be implemented to raise students' knowledge of UTIs, make them aware of how to prevent UTIs, and encourage them to consult doctors if necessary.<sup>6</sup>

### **AIM OF THE STUDY**

The aim of the study was An Exploratory Study To Assess The Knowledge About The Adolescent Girls Regarding Prevention Of Urinary Tract Infection In Selected Urban Areas Of Pune City.

### **RESEARCH METHODOLOGY**

In this study we used quantitative research approach. The non-probability purposive sampling technique was used. The sample consist of 100 adolescent girls from selected urban areas of Pune city who had fulfilled the inclusion criteria of the study in order to assess the knowledge about the adolescent girls regarding prevention of urinary tract infection in selected urban areas

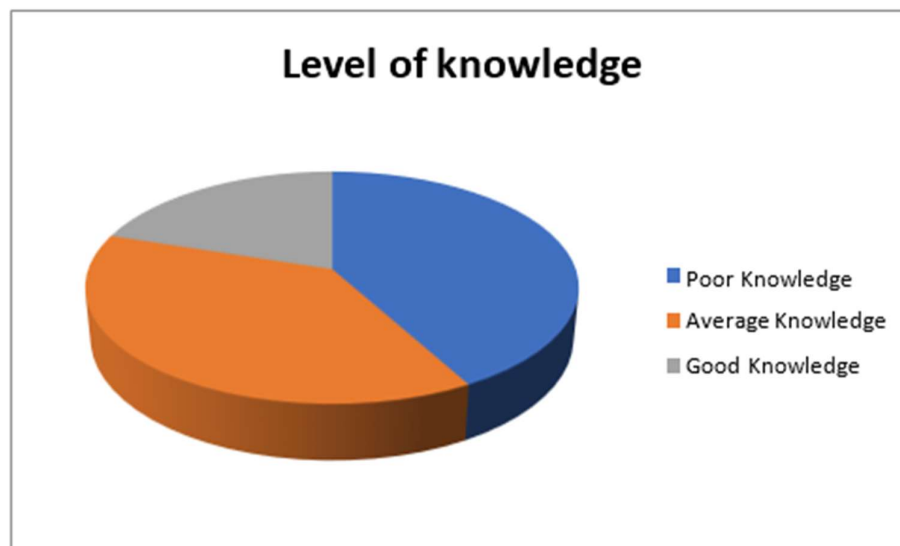
of Pune city. The reliability of tool was done on 10 participants in selected urban areas of Pune city, the value was 0.88 and tool found reliable.

## RESULTS

### Analysis of demographic data of antenatal mothers:-

- The majority 47% of samples were from 16- 18 years of age, 38% of samples were from 13- 15 yrs of age and 15% of samples were from 10-12 yrs of age group.
- The majority 60% of samples were in 9-12 th standard and 40% of samples were in 5-8 th standard ,
- The majority 63% of samples were from nuclear family and 37% of samples were from joint family.
- Demonstrate that's 60% of sampled family members did not get UTI in their life time, while 40% did.
- Revels that while 37% of samples had family members in working in the medical area , the bulk of samples (63%) did not.
- Majority 55% of samples not heard about urinary tract infection where as 45% of samples heard about urinary tract infection.
- The majority 25% of samples heard about urinary tract infection from family , 8% of samples heard about urinary tract infection from health professionals , 7% of samples heard about urinary tract infection from social media/ T.V and 5% of samples heard about urinary tract infection from friends

### 1. Analysis of knowledge regarding prevention of urinary tract infection among adolescent girls.



Knowledge regarding prevention of urinary tract infection among adolescent girls majority 42% of samples had poor knowledge, 38% of samples had average knowledge and 20% of samples had good knowledge.

1. Table no. 1: Mean, Standard deviation of knowledge regarding prevention of urinary tract infection among adolescent girls.

Level of knowledge	Frequency	Percentage	Mean	SD
Poor Knowledge	42	42.00	8.59	4.22
Average Knowledge	38	38.00		
Good Knowledge	20	20.00		

The data presented in Table No. 01 reveals that the mean level of the data is 8.59, which means it falls on average score. It also shows that the Standard deviation is 4.22

**2. Analysis of association of knowledge regarding prevention of urinary tract infection with selected demographic variables:**

Demographic variable		Level of knowledge			P value
		Average knowledge	Good knowledge	Poor knowledge	
<b>Q.1: Age-</b>	a. 10-12 years	2	1	12	0.019*
	b. 13-15 years	14	8	16	
	c. 16-18 years	22	11	14	
<b>Q.2: Education-</b>	a. 5th to 8th std	14	8	18	0.86
	b. 9th - 12th std	24	12	24	
<b>3. Family Status:</b>	a. Nuclear	24	16	23	0.157
	b. Joint	14	4	19	
<b>4. Anyone in the family had UTI in their lifetime?</b>	a. Yes	14	9	15	0.76
	b. No	24	11	27	
<b>5. Anyone in the family is from medical field?</b>	a. Yes	17	11	9	0.017*
	b. No	21	9	33	
<b>6. Have you heard about urinary tract infection?</b>	a. Yes	18	12	15	0.186
	b. No	20	8	27	

Table no – 2, shows that there was significant association found between age, anyone in the family is from medical field with level of knowledge since p-value was less than 0.05 level of significance and no significant association found between education, family status, Anyone in the family had UTI in their lifetime and Have you heard about urinary tract infection with level of knowledge; since p-value was more than 0.05 level of significance.

## **DISCUSSION**

The findings indicated that the majority of samples (42% of samples) had poor knowledge of urinary tract infection prevention, 38% of samples had average knowledge of urinary tract infection prevention, and 20% of samples had good knowledge of urinary tract infection prevention.

A research on teenage girls' awareness of preventing urinary tract infections by Kripa, C. K., et al. (2016). In a particular nursing college, a non-experimental descriptive research was conducted to evaluate teenage girls' awareness of UTI prevention. 30 teenage females from the Aswini College of Nursing make up the study's sample size. The technique of probability random sampling was modified for sample selection. The tool was created after analysing the literature in light of the standardised questionnaire. According to the study, 93% of the 30 samples had average knowledge, 7% had insufficient knowledge, and none had good knowledge. Knowledge about preventing urinary tract infections does not correlate with certain demographic factors including monthly income, place of residence, family structure, or prior urinary tract infection.

## **CONCLUSION**

Research studies have looked at adolescent girls to enhance the ability of individuals to gain knowledge. Conducting research in different modalities will help to develop nursing knowledge and uplifting of the nursing profession. Teaching programs on adolescent girls should be organized. Such programs should include a comprehensive guide, qualified team members, effective teamwork, and well-defined objectives and goals. A similar study can be done on a larger scale and different settings which may help in developing a more refined and clear conclusion.

## **CONFLICT OF INTEREST**

We, researchers, understand that conflict of interest refers to situations in which financial or other personal considerations may compromise our judgment in evaluating, conducting, or reporting research. We hereby declare that we do not have any personal conflict of interest that may arise from our application and submission of our research proposal.

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## **1. REFERENCES**

1. Definition of urinary tract infection - NCI Dictionary of Cancer Terms - NCI [Internet]. [cited 2023 May 12]. Available from: <https://www.cancer.gov/publications/dictionaries/cancer-terms/def/urinary-tract-infection>
2. View of Prevalence of urinary tract infection among school going adolescent

female [Internet]. [cited 2023 May 12]. Available from:

<http://www.journals.tmkarpinski.com/index.php/mmed/article/view/329/150>

3. View of Analytical study of urinary tract infection in adolescent girls [Internet].

[cited 2023 May 12]. Available from:

<https://www.ijrcog.org/index.php/ijrcog/article/view/4639/3349>

4. Pardeshi P. Prevalence of urinary tract infections and current scenario of antibiotic susceptibility pattern of bacteria causing UTI. *Indian J Microbiol Res.* 5(3):334.

5. View of Access to sanitation and risk of developing urinary tract infections among women from low socio-economic settings [Internet]. [cited 2023 May 12]. Available from: <https://www.ijcmph.com/index.php/ijcmph/article/view/4757/3179>

6. Tabassum F, V MN, Manik MIN. Assessment of knowledge and awareness regarding urinary tract infections among the university students of Bangladesh. *Int J Community Med Public Heal* [Internet]. 2021 Jan 27 [cited 2023 May 12];8(2):564. Available from: [https://www.researchgate.net/publication/349483352\\_Assessment\\_of\\_knowledge\\_and\\_awareness\\_regarding\\_urinary\\_tract\\_infections\\_among\\_the\\_university\\_students\\_of\\_Bangladesh](https://www.researchgate.net/publication/349483352_Assessment_of_knowledge_and_awareness_regarding_urinary_tract_infections_among_the_university_students_of_Bangladesh)

7. Raj A, James J, Jimmy J, Mariya S. “Knowledge and Self Reported Practices Regarding Prevention of Urinary Tract Infection among Adolescents Girls in Selected College of Mangaluru”. *Eur J Mol Clin Med.* 7(11):2020.

8. Semwal T, Sharma M. A study to estimate the occurrence, knowledge, practice regarding prevention of urinary tract infection among adolescent girls in selected community areas, Dehradun, Uttarakhand. *Int J Med Sci Public Heal* [Internet]. 2020 [cited 2023 May 14]; Available from: <http://www.ijmsph.com>

9. Prasad TS, Jessima S. Prevalence of urinary tract infection among school going adolescent girls in rural part of Chennai. 2019 [cited 2023 May 14]; Available from: <http://imsear.searo.who.int/handle/123456789/187294>

10. Srivastava S. Analytical study of urinary tract infection in adolescent girls. *Int J Reprod Contraception, Obstet Gynecol* [Internet]. 2018 Mar 27 [cited 2023 May 14];7(4):1385–8. Available from: <https://www.ijrcog.org/index.php/ijrcog/article/view/4639>

11. Rahman S Rezwan., Ahmed MF, Begum A. Occurrence of Urinary Tract Infection in Adolescent and Adult Women of Shanty Town in Dhaka City, Bangladesh. *Ethiop J Health Sci* [Internet]. 2014 Apr 1 [cited 2023 May 14];24(2):145. Available from: </pmc/articles/PMC4006209/>

12. Semwal T, Sharma M. A study to estimate the occurrence, knowledge, practice regarding prevention of urinary tract infection among adolescent girls in selected community areas, Dehradun, Uttarakhand. *Int J Med Sci Public Heal* [Internet]. 2020 [cited 2023 May 14]; Available from: <http://www.ijmsph.com>
13. Sapkota A, Timilsina M, Timsina M, Sharma P, Jaiswal S. Prevalence of urinary tract infection among school going adolescent female. *MicroMedicine* [Internet]. 2020 Jul 31 [cited 2023 May 14];8(2):38–45.  
Available from:  
<http://www.journals.tmkarpinski.com/index.php/mmed/article/view/329>
14. Knowledge on prevention of urinary tract infection among adolescent girls | *International Journal of Recent Scientific Research* [Internet]. [cited 2023 May 14]. Available from: <http://www.recentscientific.com/knowledge-prevention-urinary-tract-infection-among-adolescent-girls>
15. Raj A, James J, Jimmy J, Mariya S. “Knowledge and Self Reported Practices Regarding Prevention of Urinary Tract Infection among Adolescents Girls in Selected College of Mangaluru”. *Eur J Mol Clin Med*. 7(11):2020.
16. Urinary Tract Infection-Knowledge and Habitual Practices among Adolescent Girls Residing in College Hostel of Mangaluru, India: A Cross-sectional Study. [cited 2023 May 14]; Available from: [www.jcdr.net](http://www.jcdr.net)