



# Knowledge of Nursing students on risk factors, prevention and management of urinary tract infection

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## Abstract

Urinary tract infection (UTI) is the inflammatory disorder caused by the abnormal growth of pathogens in urinary tract. Infection when it affects the lower urinary part it is known as simple cystitis and when it affects upper urinary tract, it is known as Pyelonephritis. Urinary tract infection is the second most common type of the infection in the body. Owing to female anatomy, women are most commonly affected by UTI than men.

**Aim:** The study was aimed to assess the knowledge of nursing students regarding risk factors, prevention and management of urinary tract infection. **Study approach:** Descriptive survey approach was used. Simple random sampling was adopted to select 100 nursing students. **Tool and technique:** Structured knowledge questionnaire was used to collect data. **Results:** Majority (80%) of nursing students had average knowledge regarding risk factors, prevention and management of Urinary Tract Infection (UTI). **Conclusion:** Study concluded that there is vital requirement in creating awareness among nursing students regarding urinary tract infection.

**Key words:** Knowledge, urinary tract infection, nursing students.

## Introduction

Urinary tract infection (UTI) is the inflammatory disorder caused by the abnormal growth of pathogens in urinary tract.<sup>1</sup> Urinary Tract Infection (UTI) is an infection caused by the presence and growth of microorganism anywhere in the urinary tract and the single commonest bacterial infection of mankind. It is the second most common infection present in the community medical practice.<sup>2</sup> UTI can be classified as uncomplicated and complicated or primary and recurrent.<sup>3</sup> Majority of women have recurrent infection occurring between the ages of 16 and 35 years with 10% of women getting an infection yearly and more than 40% to 60% having an infection at least once in their lives.<sup>4</sup>

The prevalence of asymptomatic bacteria has been estimated to range from 2%-10% in various studies globally. About 150 million people suffer from UTI, each year globally which result in greater than 6

million dollars directly to healthcare.<sup>5</sup> UTI are common in infants and young children and about 3% of girls and 1% of boys will have an UTI by 11 years of age. UTI are also common in female adolescents and young women.<sup>6</sup>

The prevalence of urinary tract infection is higher during adolescence, a period in which hormonal changes favour vaginal colonization by nephrogenic strains of bacteria, which can migrate to the peri-urethral area and cause urinary tract infection. An estimated 73% of adolescent girls report having had a urinary tract infection at some point in their lives.<sup>7</sup>

Nurses' play an important role in health promotion in which providing health education becomes the foremost step. Assessment of the knowledge regarding urinary tract infection will help to plan educational; program to improve the knowledge of the nursing students.

**Problem statement:** Knowledge of nursing students regarding risk factors, prevention and management of urinary tract infection.

### Objectives

1. To assess the knowledge of nursing students regarding risk factors, prevention and management of urinary tract infection.
2. To find the association between knowledge of nursing students regarding risk factors, prevention and management of urinary tract infection and their selected personal variables

### HYPOTHESIS:

**H<sub>1</sub>:** There will be significant association between association between knowledge of nursing students regarding risk factors, prevention and management of urinary tract infection and their selected personal variables

### Materials and methods

Descriptive survey approach was used to conduct the study. 100 Samples were selected using simple random sampling technique. Structured knowledge questionnaire was used to collect the data and the data was analysed using descriptive and inferential statistics.

**TABLE 1:**  
**Findings related to personal variables of nursing students**

n=100

Sl no	Sample characteristics	Frequency	Percentage
1	Age in years		
	18-19	46	46
	20-21	37	37
	22-23	17	17
2	Gender		
	Male	07	07
	Female	93	93
3	Previous experience of UTI		
	Yes	22	22
	No	78	78

Total 100 nursing students enrolled for the study and majority (46%) of them were in the age group of 18-19 years and 93% were females. Among the participants 78% experienced UTI previously.

**2. Findings related to knowledge of Nursing students regarding risk factors, prevention and management of UTI.**

**TABLE 2**  
**Frequency and percentage distribution of knowledge of nursing students regarding risk factors, prevention and management of UTI.**

n=100

LEVEL OF KNOWLEDGE	FREQUENCY	PERCENTAGE
Good knowledge	07	07
Average knowledge	80	80
Poor knowledge	13	13

Data presented in table 2 shows that majority (80%) of the nursing students had average knowledge, 13% of nursing students had poor knowledge and 7% of nursing students had good knowledge regarding risk factors, prevention and management of Urinary Tract Infection (UTI).

Similar findings were reported in a study conducted to assess the knowledge, practice of staff nurses on prevention of UTI among patients with indwelling catheter at Bhuvaneshwar and reported that only 38.8% had good knowledge regarding UTI<sup>8</sup>. Another study findings reported that 40% adolescent had poor knowledge and 25% had average knowledge regarding UTI<sup>9</sup>.

**TABLE: 3**

**Mean, median, standard deviation and range of knowledge scores**

	Mean	Median	Range	Standard deviation
<b>Knowledge score</b>	<b>10.28</b>	<b>11</b>	<b>4-19</b>	<b>±2.98</b>

Data presented in table 3 reveals that the mean knowledge score was 10.28, and the median was 11. The scores ranged from 4 – 19 and standard deviation was  $\pm 2.98$ .

### **3. Findings related to association between the knowledge of Nursing students regarding knowledge of nursing students regarding risk factors, prevention and management of urinary tract infection and their selected personal variables**

There was no statistically significant association found between the knowledge of nursing students regarding risk factors, prevention and management of Urinary Tract Infection (UTI) and their selected personal variables ( $p>0.05$ ). Hence it was inferred that the knowledge of nursing students regarding risk factors, prevention and management of Urinary Tract Infection (UTI) is not influenced by their personal variables.

#### **Conclusion:**

This study presents the knowledge of nursing students regarding risk factors, prevention and management of UTI. The findings indicated that there is a need to provide awareness regarding risk factors, management and prevention of Urinary Tract Infection (UTI) among these students. Equipping the student nurses with adequate knowledge will improve their practice there by reducing the rate of urinary tract infection. A thorough understanding of the risk factors and management of urinary tract infection can enable the nursing students to be sensitive to the needs of the patients and population.

**Limitations:**

The study included only nursing students. Similar study with educational intervention could be planned for students from other disciplines also.

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**Conflicts of interest:**

There are no conflicts of interest.

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