

## Evaluation Of Knowledge And Practice Of Urinary Tract Infection Among Hostel Girls At Selected College Of Dehradun

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**ABSTRACT** - Urinary Tract Infection (UTI's) characterized as existence of the microorganism in the Urinary Tract. When the Infection occurs in bladder and urethra which indicate lower Urinary Tract Infection like that if Infection occurs in kidney and ureter which considered as Upper Urinary Tract Infection. A Descriptive cross-sectional descriptive design was used in the study. Total 100 Hostel Girls were enrolled using Total enumerative sampling technique. The self-Structured knowledge questionnaire and self-structured General Practice checklist were adopted to collect the data regarding Urinary Tract Infection. Result of the study showed that the obtain range of knowledge score were 6- 22, notify the mean  $14.94 \pm 3.62$  and median 15. The mean percentage of knowledge score was 67.90% and the knowledge level 9% participants had good knowledge (81- 100%) about Urinary Tract Infection, majority (82%) participants had average knowledge (51-80%) and few participants (9%) had poor knowledge (<50%). The current study revealed General Practice score were 7-20, notify the mean  $14.9 \pm 2.54$  and median 15. The mean percentage of knowledge score was 74.5% and Practice level Majority (78%) participants had good Practice (81-100%), Nearly (22%) participants had average Practice (51-80%) and no participants had poor knowledge (<50%). The Study concluded that the 82% subjects had average knowledge and 9% had good knowledge as well as poor knowledge. In General practice girls had good practice 78%, average practice 22% and there is no subject of poor practice. The factor associated with religion in knowledge score and No. of times in practice score. There is no association with other variables in knowledge score and practice score.

**Key Words:** Knowledge, Practice, Hostel Girls & Urinary Tract Infection (UTI)

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**INTRODUCTION** - Urinary Tract Infection (UTI's) characterized as existence of the microorganism in the Urinary Tract. When the Infection occurs in bladder and urethra which indicate lower Urinary Tract Infection like that if Infection occurs in kidney and ureter which considered as Upper Urinary Tract Infection.<sup>5</sup> This Infection occurs in any part of the Urinary Tract like Prostatitis, urethritis, pyelonephritis, and cystitis. The Urinary Tract Infection can be symptomatic or asymptomatic if the symptom shows like micturition, dysuria, supra pubic enforcement, urgency to urinate, cloudy or dark bloody urine, foul smelling, tiredness, fever, nausea or vomiting, abdominal pain, back pain, irritation. Urinary Tract Infection affects both gender but women are more prominent between age group (15-45) because of their anatomical and reproductive physiology. Urinary Tract Infection is the majority frequently lead by *Escherichia coli* at least 80-85% of people suffer from this bacteria and *staphylococcus saprophyticus* caused approximately 5-10%.<sup>4</sup> Other reason to caused Urinary Tract Infection by the

microorganism like proteus species, klebsiella pneumonia, staphylococcus aureus, streptococcus agalactiae.<sup>5</sup> Approximately 150 million people were infected with Urinary Tract Infection per year in the world.

**METHODOLOGY** - The current study employed a quantitative non-experimental research descriptive research design. The population under investigation in this study was defined as 100 girls living in hostel. using Total enumerative sampling technique. The self-Structured knowledge questionnaire and self-structured General Practice checklist were adopted to collect the data regarding Urinary Tract Infection. After obtaining ethical clearance and taking the formal approval from the concern authority the participant were approach on individual basis, A brief self-introduction and the study's objectives were provided. The study subject was then asked to provide written consent. Data was collected from – June '2023. The obtained data was

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analyzed and interpreted using M.S. Excel and descriptive statistics (SPSS 20).

**RESULT –**

**Section I**

**Demographic profile** - Data shows that 74% of girls were the age group of 17-22 and 25% of girls were the age group of 23-28. All were single. In Religion, 88% were Hindu, 9% were Muslim, 1% were Christian and 2% were Sikh. In professional, 72% were non-medical and 28% were Medical. The 70% girls were having previous knowledge about UTI by source of knowledge

through multi-media (68%), Family& friends (32%) and 30% girls were not having previous knowledge about UTI. In Mothers education ,15% mothers were uneducated and 85% mothers were educated. Majority of girls belongs to nuclear family (70%) is more than joint family (30%). Nearly (39%) of the girl’s family had income between Rs15000-25000 and (61%) had income between Rs 25000-35000. Majority of no past history of UTI were 66% and few of having past history about UTI 34%. Majority (97%) of girls had UTI between 0-5 and very few of (3%) had no UTI

**Section II**

**Table 1 - Range, mean, standard deviation, Median of knowledge score of participations regarding knowledge scores of Urinary Tract Infection.**

Variabl e	Range	Mean ± SD	Median	Mean (%)
Knowle dge	6 - 22	14.94 ± 3.62	15	67.90%

Table 1 revealed that the obtain range of knowledge score were 6-22, notify the mean 14.94 ± 3.62 and median 15. The mean percentage of knowledge score was 67.90%.

**Table 2 This table contain knowledge level of participants.**

S NO.	KNOWLEDGE LEVEL	Interpretation	SCORE	Participants score (%)
1	81-100%	Good	28-20	9%
2	51-80%	Average	19-10	82%
3	<50%	Poor	< 9	9%

Table 2 Reveled the knowledge level of the participants according to Interpretation. The 9% participants had good knowledge (81-100%) about Urinary Tract Infection, majority (82%) participants had average knowledge (51-80%) and few participants (9%) had poor knowledge (<50%).

**Table 3 Distribution of frequency and percentage in the study's items wise n=100**

S.NO	ITEMS	FREQUENCY	PERCENTAGE (%)
1.	Urinary system consists of	70	70
2.	Urinary Tract Infection is	60	60
3.	How much urine does the average adult pass each day?	62	62
4.	Urinary tract infection is most common in girls because	65	65
5.	On average, what percentage of pregnant women develop UTI?	36	36
6.	What is the most common cause of Urinary Tract Infection?	39	39
7.	The most common causative organism of UTI is	56	56
8.	Which is a common UTI risk factor in adults?	53	53
9.	What is the primary symptom shows in Urinary Tract Infection?	18	18
10.	What is the symptom shows in Urinary Tract Infection?	62	62
11.	During a urinary tract infection, the urine is?	80	80
12.	Which factor that increase chance to	11	11

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	have Urinary Tract Infection?		
13.	Who have more chances to get Urinary Tract Infection?	100	100
14.	What is the primary risk factor for Recurrent Urinary Tract Infection?	17	17
15.	Treatment of UTI consist of	84	84
16.	Which antibiotics are used in the treatment of uncomplicated UTIs?	44	44
17.	What is the complication arising from Urinary Tract Infection?	33	33
18.	Which liquid you have to drink for the prevention of Urinary Tract Infection?	29	29
19.	Vitamins which help to prevent UTIs	58	58
20.	How can women prevent Urinary Tract Infection?	23	23
21.	Which of the following may provide some relief from UTI pain?	57	57
22.	Which of the following is a preventative measure to reduce the risk of UTI?	80	80
23.	Which type of treatment used for UTI?	74	74
24.	What is the best home remedy for UTI infection?	76	76
25.	Which common condition arise in Urinary Tract Infection?	21	21
26.	The following need to be avoided to prevent the urinary tract infection?	56	56
27.	Which test is common for UTIs?	75	75
28.	A pregnant woman who develops UTI need proper treatment to avoid?	55	55

Table 3 shows the item-by-item frequency or percentage distribution of the knowledge questionnaire. Out of the 28 questions, KQ13 received 100% of the answers, whereas KQ12 received only 11%.

**Section III**

**Table 4 Range, mean, standard deviation, Median of General practice score of participations regarding Urinary Tract Infection.**  
=100

Variable	Range	Mean ± SD	Median	Mean (%)
General Practice	7 - 20	14.9 ± 2.54	15	74.5%

Table 4 revealed that the obtain range of General Practice score were 7-20, notify the mean 14.9±2.54 and median 15. The mean percentage of knowledge score was 74.5%.

**Table 5 This table contain Practice level of participants=100**

S NO.	PRACTICE LEVEL	Interpretation	SCORE	Participants score (%)
1	81-100%	Good	20-14	78%
2	51-80%	Average	13-7	22%
3	<50%	Poor	< 6	0%

Table 5 Reveled the Practice level of the participants according to Interpretation. The Majority (78%) participants had good Practice (81-100%), Nearly (22%) participants had average Practice (51-80%) and no participants had poor knowledge (<50%).

**TABLE 6 General practice checklist Frequency and Percentage distribution in Items Wise of the studyn=100**

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S.NO	ITEMS	FREQUENCY	PERCENTAGE (%)
1.	Take regular Bath.	98	98
2.	Used hygienic products for bathing.	100	100
3.	Clean the genital area after using the toilet each time.	94	94
4.	Proper Direction of wiping the genital area.	89	89
5.	Drying the genital area after using the toilet each time.	72	72
6.	Change the underwear daily.	96	96
7.	Wear cotton underwear.	99	99
8.	Washing hands after using the toilet.	100	100
9.	Drink enough water daily.	75	75
10.	Daily drink (tea-coffee) more than 2 cups in a day.	14	14
11.	Wear tight pants and jeans (clothes).	24	24
12.	Take physician advise to treat UTI.	55	55
13.	Change pads during menstruation in every four hours.	89	89
14.	Using common washroom more than 2 person or public toilet	57	57
15.	Apply feminine spray to maintain genital hygiene.	34	34

16.	Maintain perineal hygiene daily	84	84
17.	Maintain safe period protocol during menstruation.	96	96
18.	Flush the public toilet before using them.	96	96
19.	Clean perineum region monthly.	67	67
20.	Use home remedies to treat UTI.	51	51

Table 6 depicts the frequency or percentage distribution of Checklist of General Practice according to item wise. Majority of GP 2 or GP 8 had 100% and GP 10 had 14% answered from the 20 questions.

#### Section IV

**Table 7: Find the association between knowledge and the demographic variable.n=100**

S.NO.	Demographic Variables	Average	Good	Poor	Chi $\chi^2$	df value	P.value	Significance
1.	Age	17-22	60	8	1.918	2	0.383	Not significance
		23-28	23	1				
2.	Religion	Hindu	76	5	16.095	6	<b>0.013*</b>	<b>Significance</b>
		Muslim	4	4				
		Christian	1	0				
		Sikh	2	0				
3.	Course	Non-Medical	58	7	1.288	2	0.525	Not significance
		Medical	25	2				

4.	Previous knowledge about UTI	Yes	58	7	0.474	2	0.789	Not significance
		No	25	2				
5.	Source of knowledge	Multi- media	18	4	2.916	2	0.233	Not significance
		Family & friends	65	5				
6.	Education of Mother	Uneducated	11	2	1.194	2	0.550	Not significance
		Educated	72	7				
7.	Type of family	Nuclear	55	8	5.570	2	0.062	Not significance

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		Joint	28	1	0				
8.	Family Income	15000-25000Rs.	17	0	2	2.417	2	0.299	Not significance
		25000-35000Rs.	66	9	6				
9.	Past History of UTI	Yes	28	3	3	0.048	2	0.976	Not significance
		No	55	6	5				
10.	No. of Times having UTI	0-5	81	9	7	2.859	2	0.239	Not significance
		5-10	2	0	1				

\*(Significance at  $p < 0.05$ )

(Not significant at  $p > 0.05$ )

Table 7 reveals a noteworthy association between knowledge score and demographic characteristics, including age group. ( $p < 0.383$ ), Religion ( $p < 0.013$ ), In professional, course Medical and Non- medical ( $p < 0.525$ ), previous knowledge about UTI ( $p = 0.789$ ), source of knowledge through multi-

media, Family & friends and girls were not having previous knowledge about UTI ( $p < 0.233$ ). In Mothers education ( $p < 0.550$ ), types of family ( $p = 0.062$ ), girl's family had income between Rs15000- 25000 between Rs 25000-35000 ( $p < 0.299$ ), having past history about UTI ( $P < 0.976$ ), No. of times having UTI ( $p < 0.239$ ).

**Table 8 : Find the association between demographic variable and Practice**

S.NO.	Demographic Variables	Average	Good	Chi $\chi^2$	df value	P.value	Significance	
1.	Age	17-22	16	59	0.078	1	0.7800	Not significance
		23-28	6	19				
2.	Religion	Hindu	18	70	1.992	3	0.574	Not significance
		Muslim	3	6				
		Christian	0	1				
		Sikh	1	1				
3.	Course	Non- Medical	15	57	0.204	1	0.652	Not significance
		Medical	7	21				
4.	Previous knowledge about UTI	Yes	13	57	1.598	1	0.206	Not significance
		No	9	21				
5.	Source of knowledge	Multi- media	4	19	0.370	1	0.543	Not significance
		Family & friends	18	59				
6.	Education of Mother	Uneducated	5	10	1.321	1	0.250	Not significance
		Educated	17	68				
7.	Type of family	Nuclear	18	53	1.603	1	0.205	Not significance
		Joint	4	25				
8.	Family Income	15000-25000Rs.	5	14	0.255	1	0.614	Not significance
		25000-35000Rs.	17	64				

9.	Past History of UTI	Yes	11	23	3.218	1	0.073	Not significance
		No	11	55				
10.	No. of Times having UTI	0-5	20	77	3.596	1	<b>0.058*</b>	<b>Significance</b>
		5-10	2	1				

(Significance at  $p < 0.05$ )

(Not significant at  $p > 0.05$ )

Table 8, not with standing the noteworthy association discovered between demographic factors and Practice score, including age group ( $p < 0.7800$ ), Religion ( $p < 0.574$ ), In professional, course Medical and Non- medical ( $p < 0.652$ ), previous knowledge about

UTI ( $p = 0.206$ ), source of knowledge through multi-media, Family & friends and girls were not having previous knowledge about UTI ( $p < 0.543$ ). In Mothers education ( $p < 0.250$ ), types of family ( $p = 0.205$ ), girl's family had income between Rs15000- 25000 between

Rs 25000-35000( $p < 0.614$ ), having past history about UTI ( $P < 0.073$ ), No. of times having UTI( $p < 0.058$ ). There was no poor Knowledge in practice so, it was not included in association between demographic variables and practice.

## DISCUSSION

### I. Discussion related to socio-demographic variables of the girls in hostel.

The results of this study, taking into account the socio-demographic aspects of the girls, show the frequency and percentage distribution of girls living in hostels. According to the current survey, 74% of females were in the 17–22 age range, and 25% of girls were in the 23–28 years. The present study samples were single there is no one who were married. The present study showed in Religion, 88% were Hindu, 9% were Muslim, 1% were Christian and 2% were Sikh. The present study includes in professional, 72% were non-medical and 28% were Medical. The 70% girls were having previous knowledge about UTI by source of knowledge through multi-media (68%), Family& friends (32%) and 30% girls were not having previous knowledge about UTI in the present study. The present study was included Mothers education as a variable ,15% mothers were uneducated and 85% mothers were educated. Majority of girls belongs to nuclear family (70%) is more than joint family (30%) in the present study. **Similar results were published in May 2021 by Patel M. E. et al.** Nearly (39%) of the girl's family had income between Rs15000-25000 and (61%) had income between Rs 25000-35000 in the present study. Majority of no past history of UTI were 66% and few of having past history about UTI 33%. Majority (97%) of girls had UTI between 0-5 and very few of (3%) had no UTI in present study.

### II. Discussion related to knowledge regarding UTI among girls in hostel.

According to item-by-item analysis, the current study recommends the frequency or percentage distribution of knowledge questionnaires. Out of the 28 questions, KQ13 received 100% of the answers, whereas KQ12 received only 11%. The Current study revealed that the obtain range of knowledge score were 6-22, notify the mean  $14.94 \pm 3.62$  and median 15. The mean percentage of knowledge score was 67.90%. **Similar findings were reported by Semwal T. et al (23sep 2020).** The present study revealed the knowledge level of the participants according to Interpretation. The 9% participants had good knowledge (81-100%) about Urinary Tract Infection, majority (82%) participants had average knowledge (51-80%) and few participants (9%) had poor knowledge (<50%). **The study carried out by Sherpa Z.S. et al. (February 2022) showed similar conclusions.** In the present study suggest that Girls had more average knowledge who living in hostel about UTI but less good as well as poor knowledge.

### III. Discussion Related to General Practice Regarding UTI among girls.

The present study despite the frequency or percentage distribution of Checklist of General Practice according to item wise. Majority of GP 2 or GP 8 had 100% and GP 10 had 14% answered from the 20 questions. The present study revealed that the obtain range of General Practice score were 7-20, notify the mean  $14.9 \pm 2.54$  and median 15. The mean percentage of knowledge score was 74.5%. **Similar findings were reported**

**by Sequera Liz S. et all (2021).** The current study revealed the Practice level of the participants according to Interpretation. The Majority (78%) participants had good Practice (81-100%), Nearly (22%) participants had average Practice (51-80%) and no participants had poor knowledge (<50%). **Similar findings were reported by C.S Vidya et all (Jan 2019).** In The present study suggest that girls had good general practice regarding UTI and there is no poor knowledge seen in girls at hostel.

### IV. Discussion related to association of knowledge score with socio demographic among girls.

According to this study, the significant association between age group and knowledge score and demographic characteristics was not statistically significant ( $p < 0.383$ ), **Similar findings were reported by Alshahrani M. , et all ( March 2022),** Religion was significant with knowledge score ( $p < 0.013$ ), In professional, course Medical and Non-medical was not significant ( $p < 0.525$ ), previous knowledge about UTI was not significant ( $p = 0.789$ ), source of knowledge through multi-media, Family& friends and girls were not having previous knowledge about UTI was not significant( $p < 0.233$ ). In Mothers education was not significant ( $p < 0.550$ ), not significant with types of family ( $p = 0.062$ ), girl's family had income between Rs15000-25000 between Rs 25000- 35000( $p < 0.299$ ), **Similar findings were reported by Raj Amitha et all (2020).** there is not significant with past history about UTI ( $P < 0.976$ ), not significant with No. of times having UTI( $p < 0.239$ ). Apart from religion, no other demographic variable is associated with it. The significance of the connection is at  $< 0.005$ .

### V. Discussion related to association of General practice score with socio demographic among girls.

According to the results of the current study, there is no discernible association between age group and Practice score( $p < 0.7800$ ), Religion ( $p < 0.574$ ), In professional, course Medical and Non- medical ( $p < 0.652$ ), previous knowledge about UTI( $p = 0.206$ ), source of knowledge through multi-media, Family& friends and girls were not having previous knowledge about UTI( $p < 0.543$ ). In Mothers education ( $p < 0.250$ ). **Similar findings were reported by Mahmaud Fathy M.H. et all. (Dec 2019) P=0.18,** types of family ( $p = 0.205$ ), girl's family had income

between Rs15000-25000 between Rs 25000-35000( $p=0.614$ ), having past history about UTI ( $P=0.073$ ), but there is association significant with no. of times having UTI( $p=0.058$ ). There is no association exists with the practice score.

**CONCLUSION** - After the completion of this study, I concluded that the girls who living in hostel had Average knowledge and good practice about Urinary Tract Infection. It found that many of the girls had more (70%) previous knowledge due to past history. 55% Girls went to the doctor after occurring UTI for treatment. It found that occurring of UTI due to the many girls used common washroom. Study also emphasized that the age group of 17- 23 had more UTI history than the age group of 23-28 years. Study finds that the 82% subjects had average knowledge and 9% had good knowledge as well as poor knowledge. In General practice girls had good practice 78%, average practice 22% and there is no subject of poor practice founded.

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