A Pre Experimental Study To Assess The Effectiveness Of Structured Teaching Programme On Knowledge And Expressed Practices Regarding Prevention And Management Of Urinary Tract Infection Among Adolescent Girls At Rajkiya Kanya Mahavidyalaya Shimla,Himachal Pradesh.

Mrs.Netali,Ms. Dixit Gautam, Ms. Priyanka Verma, Aarti Thakur, Anchal Sharma, Anita Devi, Anjana Devi , Arpna

Himachal Pradesh University

ABSTRACT

BACKGROUND:

AIM: The aim of the study was to assess the knowledge and expressed practices regarding prevention and management of urinary tract infection among adolescent girls of Rajkiya Kanya Mahavidyalaya Shimla.

RESEARCH METHODOLOGY: The research approach selected for the present study was a qualitative approach. A pre-experimental research design was adopted with one- group pretest- posttest design. The study was conducted at Rajkiya Kanya Mahavidyalaya Shimla Himachal Pradesh. The 40 adolescent girls B.A. 1st year students were selected through Non probability convenient technique. Data was collected by using self structured knowledge questionnaire and checklist was used to assess the expressed practices regarding prevention and management of urinary tract infection among adolescent girls.

RESULT: In pre-test knowledge scores (50%) students were having below knowledge level regarding prevention and management of urinary tract infection while (47.5%) were having average knowledge, Whereas in post-test knowledge (2.5%) students were having average knowledge regarding prevention and management of urinary tract infection, (97.5%) were having good knowledge. The pre-test expressed practices scores of students was (0%) regarding poor practice related to prevention and management of urinary tract infection while (30%) were having average practice , Whereas post-test expressed practices

scores (2.5%) students were having average practice while (97.5%) were having good practice regarding prevention and management of urinary tract infection.

CONCLUSION: This study concluded that the adolescent girls had inadequate knowledge regarding prevention and management of Urinary Tract Infection and structure teaching program was effective in improving the adolescent girls knowledge and expressed practices regarding prevention and management of Urinary Tract Infection

KEY WORDS: Knowledge, Urinary tract infection, expressed practices, Effectiveness, Adolescent girls, structured teaching program

INTRODUCTION:

Urinary tract infection is a common infection affecting all age group of people. Among uncomplicated urinary tract infection is more prevalent and second most common type of infection in the body. Women are more prone to get urinary tract infection. During adolescent period there is lack of adequate knowledge and practices related to maintenance of health can lead to urinary tract infection and other genitourinary infection.[1]

UTI stands for urinary tract infection. It is one of the most common causes of morbidity and co-morbidity. It is the one of the major problem in developing countries, it is most common in female especially in adolescent girls mainly because of changes in hormones and it is also associated with poor intake of water, infrequent voiding, poor menstrual hygiene and anatomical defect.[2]

Urinary tract infection is very common among females in all age group. During adolescence hormonal changes favor vaginal colonization by nephritogenic strains of bacteria, which can migrate to periurethral and cause urinary tract infection. It is associated with poor self-esteem, impaired quality of life, social isolation, and depression. Many factors like low water intake, infrequent voiding, poor menstrual and sexual hygiene have been implicated in urinary tract infection during adolescence.[3]

Urinary tract infection mostly affects out patients (11.23%) as compare to in patients (8.70%). The occurrence rate of urinary tract infection is higher in females (10.21%) then males (8.63%). Prevalence rate of urinary tract infection in worldwide is 150million persons per year.[4]

Urinary tract infection is an infection that affects all age groups from newborn to old age. Among adolescent girls acute uncomplicated urinary tract infection is more prevalent infection. Urinary tract infection is the second most common bacterial infection which is seen by health care provider. Urinary tract infection is affecting more then million people every year. In 1997, National Ambulatory Survey reported that 7 million office visits as well as 1 million emergency room visits 100,000 hospitalization occur due top urinary tract infection. Urinary tract infection is very common among the adolescent girls. Due to urinary tract infection in every year 6-7 million girls visits physician. About one episode of urinary tract infection will occur in about 5-6%of girls during first grade graduation from high school. As compare to boys, the recurrence rate is 50% greater in girls.

Personal experience of investigator and review of literature revealed that the lack of knowledge related to hygiene practices are then most common cause of urinary tract infection among adolescent girls. Nurses being the part of the health team have responsibility to educate the adolescent girls related to prevention of urinary tract infection. Hence the above factor motivated the investigator to undertake the study.[5]

2. METHODS AND MATERIALS:

2.1 RESEARCH APPROACH DESIGN: Quantitative research approach with Nonrandomized one group pre-test post-test design was used for the study.

2.2 SETTING:

- **For pilot study:** Pilot study was conducted at Rajiv Gandhi Government Degree College, Kotshera, Shimla, Himachal Pradesh

- **Main study:** Final study was conducted at Rajkiya Kanya Mahavidyalaya Shimla Himachal Pradesh.

- **Target population:** Adolescent girls of Rajkiya KanyaMahavidyalaya Shimla,HimachalPradesh**.**

- **Accessible population:** Accessible population for final study was Students B.A. 1st year students of Rajkiya KanyaMahavidyalaya Shimla,HimachalPradesh**.**

2.3 SAMPLE SIZE: Sample size was 40 adolescent girls only..

2.4 SAMPLE AND SAMPLE TECHNIQUE: Selection of the subject was done by using Non probability convenient technique.

2.5 DATA COLLECTION TOOL(S) AND TECHNIQUE:

Part I:

This parts deals with demographic variables (Age, Religion, Residential Area,Types of family, Fathers 'educational status, mother educational status, occupation of father, occupation of mother, income of family, any previous knowledge regarding urinary tract infection, source of information about regarding urinary tract infection.)

Part II:

This part deals with structured teaching questionnaire. Total 27 questions were formulated. Questions were prepared in the form of multiple choice questionnaires. Each question had a single correct answer, every correct answer was awarded a score of one and every wrong answer was score of zero. The maximum possible score was 27 and minimum score was zero.

Table 1: Depicts interpretation of knowledge score

SR.NO.	LEVEL OF KNOWLEDGE	RANGE	RANGE OF SCORE IN PERCENTAGE
1	Below Average	0-9	Less than 33.3%
2	Average	10-18	33.4%-66.6%
3	Good	19-27	66.7-100%

Minimum Marks=0   **Maximum Marks=27**

Part III

This part deals with the checklist regarding prevention and management of urinary tract infection. Total 18 statements were formulated. The response will be either yes/no.

Every correct answer will be awarded a score of one and every wrong answer will be awarded a score zero. Maximum score is 18 and minimum score is zero.

2.6 ETHICAL CONSIDERATION

o   Written permission was obtained from the principal, research and ethical committee of Shimla nursing college.

o   Written permission was obtained from the principal of selected college to conduct study.

o   Written/verbal consent was taken from the adolescent girls regarding the confidentiality of the data collected.

o   Purpose and detail of study was explained to the adolescent's girls.

Table 2: Frequency and percentage distribution among adolescent girls based on demographic variables regarding urinarytract infection.

n=40

Variables	Opts	Frequency	Percentage
Age	18-19 years	36	90%
	20-21 years	4	10.0%
	22-23 years	0	0%
Religion	Hindu	40	100.0%
	Muslim	0	0.0%
	Sikh	0	0.0%
	Christian	0	0.0%
	Other	0	0.0%
ResidentialArea	Rural	21	52.5%
	Urban	17	42.5%
	Semi urban	2	5.0%
Type ofFamily	Nuclear family	21	52.5%
	Joint family	19	47.5%
	Extended family	0	0.0%
Father Educational Status	Primary education	6	15.0%
	Secondary education	17	42.5%
	Graduated	15	37.5%
	Post graduated	2	5.0%
Mother educational Status	Primary education	12	30.0%
	Secondary education	18	45.0%
	Graduated	10	25.0%
	Post graduated	0	0.0%
Occupation of Father	Unemployed	0	0.0%
	Government employee	24	60.0%
	Private employee	5	12.5%
	Own business	3	7.5%
	Farmer	8	20.0%
	Others	0	0.0%
Occupation of Mother	Housewife	32	80.0%
	Government employee	3	7.5%
	Private employee	4	10.0%
	Business women	1	2.5%
	Agriculturist	0	0.0%
	Others	0	0.0%
Income of Family	Less than 5,000/month	0	0.0%
	5,001-10,000/month	3	7.5%
	10,001-15,000/month	12	30.0%
	More than 15,000	25	62.5%

Any Previous Knowledge	Yes	28	70.0%
	No	12	30.0%
Source of Knowledge	Through social media	25	62.5%
	Through books	6	15.0%
	Through family members and friends	0	0.0%
	No information	8	20.0%
	Others	1	2.5%

Table no. 2: showed the frequency and percentage distribution ofdemographic variables

with regards to age majority of adolescent girls 36 (90%) girl in age group 18-19 years, 4 (10%) were in the age group 20-21 years old. Majority of 40 (100%) girls were having Hindu Religion.

Majority of adolescent girls residential area 21(52.5%) were rural, 17(42.5%) were urban, 12(5%) were semi urban. Out of 40, 21 (52.5%) were reside in Nuclear family, 19(47.5%) were reside in joint family. Majority of education status of fathers 17(42.5%) were having secondary education, 15 (37.5%) were graduated, 6(15%) were having primary education, 2(5%) were post Graduated). Majority of education status of mothers 18(45%) were having secondary education, 12(30%) were having primary education, 10(25%) were having graduated. Majority of occupation status of fathers 24 (60%) were Government employee, 8(20%) were farmer, 5(12.5%) were private employee, 3 (7.5%) had own business. Majority of occupation of mothers 32(80%) were housewife, 4(10%) were private employee, 3(7.5%) were government employee, 1(2.5%) was business women. Majority of adolescent girls family monthly income 25(62.5%) were having more than 15,000, 12(30%) were having 10,001-15,000, 3(7.5%) were having 5001-10,000.

Majority of adolescent girls 28(70%) were having prior knowledge regarding prevention and management of urinary tract infection, 12(30%) were not having prior knowledge regarding prevention and management of urinary tract infection. source of information majority of adolescent girls 25 (62.5%)was through social media, 8(20%)were having no information, 6(15%) was through books, 1 (2.5%)was others.

SECTION B: FINDINGS RELATED TO ASSESSMENT OF THE PRE-TEST AND POST-TEST KNOWLEDGE SCORE AND EXPRESSED PRACTICE SCORE REGARDING PREVENTION AND MANAGEMENT OF URINARY TRACT INFECTION.

Table 3: frequency and percentage distribution of Pre-test knowledge score among adolescent girls regarding prevention and management of urinary tract infection.

S.NO.	LEVEL OF KNOWLEDGE	RANGE OF KNOWLEDGE	FREQUENCY	PERCENTAGE (%AGE)
1.	Below Average	0-9	20	50%
2.	Average	10-18	19	47.5%
3.	Good	19-27	1	2.5%

Minimum Score:-0 **Maximum Score:-27**

Table No.3 Showed Majority of adolescent girls 20 (50%) had Below Average Knowledge and 19 (47.5%) had Average Knowledge and 1 (2.5%) had Goodknowledge.

Table 4: Depicts Frequency and percentage distribution of Post-test knowledge score among adolescent girls in regarding prevention and management of urinary tract infection.

S.NO.	LEVEL OF KNOWLEDGE	RANGE OF KNOWLEDGE	FREQUENCY	PERCENTAGE (%AGE)
1.	Below Average	0-9	0	0%
2.	Average	10-18	1	2.5%
3.	Good	19-27	39	97.5%

Minimum Score:-0 **Maximum Score:-27**

Table No. 4 Showed Majority of adolescent girls 39 (97.5%) had Good Knowledge and 1 (2.5%) had Average Knowledge and 0 (0%) had Average knowledge.

Table 5: Depicts Frequency and percentage distribution of Pre-test Expressed Practice score among adolescent girls regarding prevention and management of urinary tract infection.

N=40

S.NO.	LEVEL OF EXPRESSED PRACTICE	RANGE OF EXPRESSED PRACTICE	FREQUENCY	PERCENTAGE (%AGE)
1.	Poor Practice	0-6	0	0%
2.	Average	7-12	12	30%
3.	Good	13-18	28	70%

Minimum Score:-0 **Maximum Score:-18**

Table 5: Showed Majority of adolescent girls 28 (30%) had Good ExpressedPractice and 12 (30%) had Average Knowledge and 0 (0%) had poor Expressed Practice.

Table 6: Depicts Frequency and percentage distribution of Post-test Expressed Practice score among adolescent girls regarding prevention and management of urinary tract infection.

N=40

S.NO.	LEVEL OF EXPRESSED PRACTICE	RANGE OF EXPRESSED PRACTICE	FREQUENCY	PERCENTAGE (%AGE)
1.	Poor Practice	0-6	0	0%
2.	Average	7-12	1	2.5%
3.	Good	13-18	39	97.5%

Minimum Score:-0 **Maximum Score:-18**

Table 6: Showed Majority of adolescent girls 39 (97.5%) had Good Expressed Practice and 1 (2.5%) had Average Knowledge and 0 (0%) had poor Expressed Practice.

Table7: Depicts Correlation between Knowledge and Expressed Practice among adolescent's girls regarding prevention and management of urinary tract infection.

Pairs	Variable 1	Variable 2	r value	P value	Result
Pair 1	PRETEST KNOWLEDGE	POSTTEST KNOWLEDGE	-0.061	0.709	Not Significant
Pair 2	PRETEST KNOWLEDGE	PRETEST PRACTICE	0.176	0.277	Not Significant
Pair 3	PRETEST KNOWLEDGE	POSTTEST PRACTICE	-0.206	0.203	Not Significant
Pair 4	**POSTTEST KNOWLEDGE**	**PRETEST PRACTICE**	**-.339***	**0.032**	**Significant**
Pair 5	POSTTEST KNOWLEDGE	POSTTEST PRACTICE	-0.193	0.233	Not Significant
Pair 6	PRETEST PRACTICE	POSTTEST PRACTICE	.596**	<0.001	Significant

**. Correlation is significant

**SIGNIFICANT   Significant at 0.05 level

Table 7: showed that correlation between knowledge and expressed practices among adolescent girls regarding prevention and management of urinary tract infection was significant.

CONCLUSION

The present study was conducted to assess the effectiveness of structured teaching programme on knowledge and expressed practices regarding prevention and management of urinary tract infection among adolescent girls in selected Rajkiya Kanya Mahavidyalaya Shimla, Himachal Pradesh.

The main study revealed that, before structured teaching programme majority of students 40 (50%) had poor knowledge after implementation of structured teaching programme majority of students 40 (97.5%) had good knowledge. So the structured teaching programme regarding prevention and management of urinary tract infection was effective enhancing the knowledge regarding prevention and management of urinary tract infection.

RECOMMENDATIONS

Based on the results of the study following recommendations were made.

1.   A pre-experimental study to access knowledge, and Expressed Practices regarding prevention and management of urinary tract infection in selected College of Shimla, Himachal Pradesh.

2.   A Pre-Experimental study to access knowledge regarding prevention and management of urinary tract infection among adolescent girls of Rajkiya Kanya Mahavidyalaya, Shimla,

Himachal Pradesh.

3. A quasi experimental study to access knowledge and Expressed Practices regarding prevention and management of urinary tract infection among adolescent girls

4. A comparative study to access the knowledge and Expressed Practices regarding prevention and management of urinary tract infection among adolescent girls

5. A pre-experimental study to access knowledge and expressed practices regarding prevention and management of urinary tract infection among adolescent girls

6. A cross-sectional study to access the knowledge and expressed practices regarding management and prevention of urinary tract infection among adolescent girls

7. A cross- sectional to access knowledge and expressed practices regarding prevention and management of urinary tract infection among selected adolescent girls

8. A community based study to access knowledge and expressed practices to maintenance of prevention and management of urinary tract infection among selected adolescent girls.

LIMITATIONS

1. Due to COVID-Pandemic, it was tough to get permission from principal of selected college of Shimla.

2. It was difficult to convince parents to allow their children for research study due to COVID-Pandemic.

3. There was difficulty to gather all the adolescent girls in a classroom because of COVID- Pandemic

4. Study is limited to limited samples. It cannot be generalized to all.

5. Literature related to Expressed Practices regarding management and prevention of urinary tract infection in India was limited.

REFERENCE

1. Urinary Tract Infections (for Teens) - Nemours KidsHealth [Internet]. [cited 2021 Dec 11]. Available from: https://kidshealth.org/en/teens/uti.html.

2. article_6683_0f2defed76f1f29ee224fc88a6776c3d (1).pdf - Google Search [Internet]. [cited 2021 Dec 18]. Available from: https://www.google.com/search?q=article_6683_0f2defed76f1f29ee224fc88a6 776c3d+(1).pdf&sxsrf=AOaemvKb34J298i0cK2Y3nmjbjDnxuFqgQ:1639809 003406&source=lnms&tbm=isch&sa=X&ved=2ahUKEwjMu5bJ3Oz0AhU1y

3. GHQSLC34Q_AUoAXoECAIQAw&biw=1239&bih=640&dpr=1#imgrc= 1A8Z2ye2K5nA-M iv Urinary tract infection - Wikipedia [Internet]. [cited 2021 Jul 18]. Available from: https://en.wikipedia.org/wiki/Urinary_tract_infection

4. Srivastava S. Analytical study of urinary tract infection in adolescent girls. Int J Reprod Contraception, Obstet Gynecol [Internet]. 2018 Mar 27 [cited 2022 Jan 11];7(4):1385–8. Available from: https://www.ijrcog.org/index.php/ijrcog/article/view/4639

5. Final Thesis Dincy | Urinary Tract Infection | Validity (Statistics) [Internet]. [cited 2021 Jul 20]. Available from: https://www.scribd.com/document/358873029/Final-Thesis-Dincy