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A Study To Evaluate The Effectiveness Of Information Education And Communication (IEC) On Knowledge Regarding Prevention Of Urinary Tract Infection (UTI) Among Adolescents Girls In A Selected School At Krubarapalli

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Abstract: Adolescence is a transitional stage of physical and psychological development from puberty to legal adulthood. It is a unique phase of human development, characterized by stress and storms. Urinary tract infections (UTIs) are a severe public health problem caused by a range of pathogens, including Escherichia coli, Klebsiella, Proteus, Enterobacter, and Enterococcus. UTIs can cause short-term morbidity, fever, dysuria, lower abdominal pain, and may result in permanent kidney scarring. Urinary tract infections (UTIs) are a common health issue affecting 65% of females and are particularly common in girls. **Objectives:** The objectives of the study is to assess knowledge and to determine the effectiveness of Information Education Communication on prevention of urinary tract infection among adolescent girls. **Methodology:** The research approach adopted for this study is Quantitative research approach. The researcher adopted in this study one group pre-test post-test with quasi experimental design The population of the present study was adolescent girls in the age group of 13-16 years in a selected school, Krubarapalli. **Results:** The study revealed that the majority of nursing students 83.3% have moderate knowledge and 7.7% of students have a adequate knowledge. **Conclusion:** The study concluded that information education and communication were effective in the level of knowledge regarding urinary tract infection among adolescent girls.

Keywords: Urinary tract infection, Adolescent girls, effectiveness of information education, Knowledge.

I. INTRODUCTION

Adolescence is a transitional stage of physical and psychological development from puberty to legal adulthood. It is a unique phase of human development, characterized by stress and storms. Urinary tract infections (UTIs) are a severe public health problem caused by a range of pathogens, including Escherichia coli, Klebsiella, Proteus, Enterobacter, and Enterococcus. These infections can be community-acquired (CA-UTIs) or nosocomial (N-UTIs). The majority of UTIs are caused by E. coli, Klebsiella, Proteus, Enterobacter, and Enterococcus. Treatment aims to prevent the spread to the kidneys or develop into upper tract disease/pyelonephritis, which can lead to hypertension. The diagnosis of a UTI is made from clinical history and urinalysis, with confirmation by a urine culture. High recurrence rates and increasing antimicrobial resistance threaten to increase the economic burden of these infections. UTIs can cause short-term morbidity, fever, dysuria, lower abdominal pain, and may result in permanent kidney scarring. Urinary tract infections (UTIs) are a common health issue affecting 65% of females and are particularly common in girls. Approximately half of women will suffer a UTI at some point in their life, and nearly one in three will develop a UTI before they reach 24. 80% of UTIs are caused by uropathogenic E. coli, which is becoming increasingly resistant to antibiotics. Antimicrobial resistance is the leading cause of death due to bacteria worldwide, and new research is vital to develop new treatments and preventative strategies. UTIs often begin as bladder infections, such as cystitis, which can lead to acute pyelonephritis, kidney damage, and severe complications. Uncomplicated UTIs, which occur in healthy women between 18 and 29 years old, are the most common type.

2. OBJECTIVES OF THE STUDY:

1. To assess the level of knowledge regarding prevention of urinary tract infection among adolescent girls in a selected school at Krubarapalli.
2. To determine the effectiveness of Information Education Communication on prevention of urinary tract infection among adolescent girls.
3. To find out the association between pre-test level of knowledge regarding prevention of urinary tract infection among adolescent girls with their selected demographic variables.

3. MATERIAL AND METHOD:

RESEARCH APPROACH:

The research approach adopted for this study is Quantitative research approach.

RESEARCH DESIGN:

The researcher adopted in this study one group pre-test post-test with quasi experimental design.

DESCRIPTION OF SETTING:

The study was conducted in the Crescent Matric Higher Secondary School, this school is located at Krubarapalli.

POPULATION:

The population of the present study was adolescent girls in the age group of 13-16 years in a selected school, Kurubarapalli.

SAMPLE AND SAMPLE SIZE:

The sample size consists of 100 primi mothers who meet the inclusion criteria.

INCLUSION CRITERIA:

1. Adolescent girls who are studying 13-16 years old.
2. Adolescent girls who can speak English and Tamil.
3. Adolescent girls who are willing to participate in the study.

DESCRIPTION OF THE TOOL:

SECTION A: Demographic variables of the adolescent girls

SECTION B: Structured Knowledge questionnaires on prevention of Urinary Tract Infections.

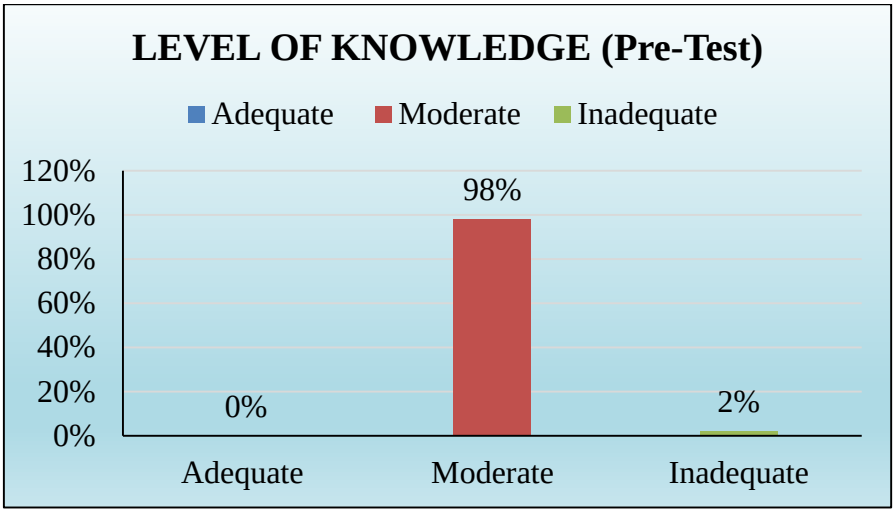
SECTION A: It consists of demographical data which includes age, sex, religion, education of the father, education of the mother, occupation of father, occupation of mother, types of family, area of living, source of information and previous history of urinary tract infection.

SECTION B: It consists of 30 multiple choice structured closed end questionaries to assess the knowledge on prevention of urinary tract infection. The question was related to urinary tract, urinary tract infection, causes, signs and symptoms, investigation, treatment and prevention of urinary tract infection.

4.ANALYSIS AND INTERPRETATION:

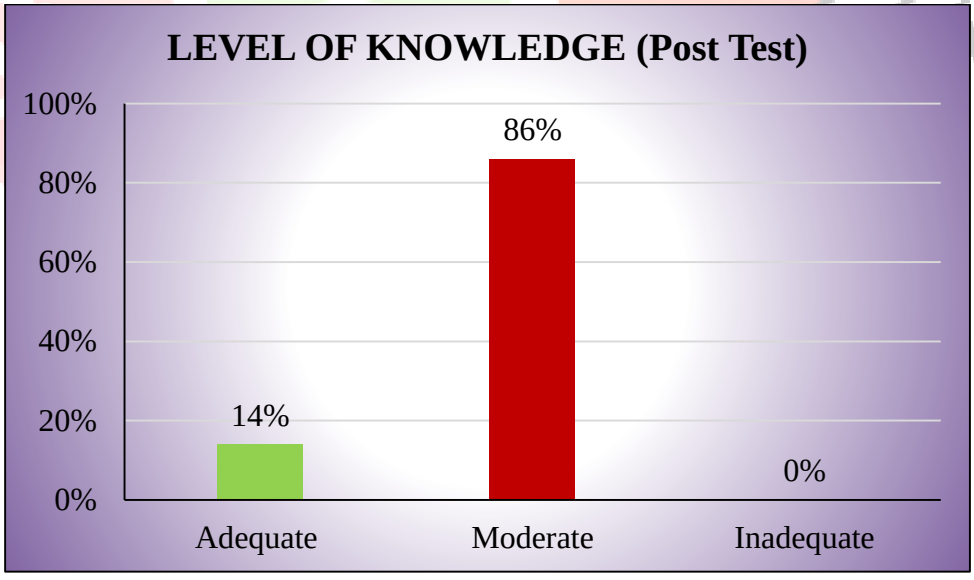
The demographic variables were analysed by using descriptive measures (frequency and percentage). The effectiveness of Information Education and Communication on will be calculated by using inferential statistics (‘t’ test). The relationship between the knowledge and selected demographic variables were analysed by using chi square.

Figure: 1 Distribution of sample according to their pre-test level of knowledge on prevention of urinary tract infection.



The above bar diagram shows that In pretest 49 (98%) samples are have moderately adequate knowledge regarding UTI, only (2%) samples have inadequate knowledge regarding UTI and none of the have adequate knowledge regarding UTI.

Figure: 2 Distribution of sample according to their post-test level of knowledge on prevention of urinary tract infection.



The above Bar diagrams show that in post-test, 7 (14%) samples have adequate knowledge regarding UTI, 43 (86%) samples have moderately knowledge regarding UTI and none of the sample have inadequate knowledge regarding UTI.

Table 1: Mean, standard deviation, mean difference and paired 't' value on knowledge regarding Information Education and Communication (IEC) prevention of urinary tract infection (UTI) among adolescent girls.

Effects of prevention of urinary tract	Mean	SD	Mean difference	Df	Paired 't' value
Pre test	15.28	3.463	4.84	49	9.533*
Post test	20.12	2.276			

The above table represents the mean pre-test score on Information Education and Communication on prevention of urinary tract infection among adolescent girls in 15.28 ± 3.463 and in the post test mean score is 20.12 ± 2.276 with a mean difference of 4.85. The calculate paired "t" value is 9.533 which is significantly higher than the table value 1.677 at $p \leq 0.05$.

Table 2: Association between the pre-test score on prevention of urinary tract infection regarding Information Education and Communication in prevention of urinary tract infection among adolescent girls

S.NO	DEMOGRAPHIC VARIABLES	Df	TABLE VALUE	×2
1.	Age	2	5.35	5.99
2.	Religion	4	5.39	9.49
3.	Education of the father	8	**282.921***	15.51
4.	Education of the mother	8	**210.0816***	15.51
5.	Occupation of father	8	**96.542***	15.51
6.	Occupation of mother	8	**296.629***	15.51
7.	Types of family	2	**11.984***	5.99
8.	Area of living	2	**11.9566***	5.99
9.	Previous history of UTI	2	5.9238	5.99
10.	Information about UTI	2	**7.4332***	5.99

The above table reveals that there is a significant association found between the education of the father, education of the mother, occupation of father, occupation of mother, types of family, area of living and information about UTI. Hence hypothesis H2 is retained for the above-mentioned demographic variables at $P \leq 0.05$ level.

5. DISCUSSION AND CONCLUSION

The study revealed that the majority of nursing students 83.3% have moderate knowledge and 7.7% of students have a adequate knowledge. This study concluded that researcher being in nursing profession felt the need to educate adolescent girls in a selected college to improve appropriate knowledge regarding the prevention of urinary tract infection. The calculate paired "t" value is 9.533 which is significantly higher than the table value 1.677 at $p \leq 0.05$. There is a significant association found between the education of the father, education of the mother, occupation of father, occupation of mother, types of family, area of living and information about UTI.

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