

STUDY ON PREVENTION PRACTICES OF URINARY TRACT INFECTION AMONG ADOLESCENT GIRLS

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ABSTRACT

Acute uncomplicated urinary tract infection (UTI) is more prevalent among adolescent girls and is the fourth main reason for outpatient visit among this group. The present study was intended to assess the prevention practices of UTI and its associated issues among adolescent girls in a selected school run by Thiruvananthapuram Corporation. The data were collected for the period of 1 week from 21.01.2020 to 27.01.2020. The research approach adopted for the study was quantitative research method based on study objectives. The research design selected for the study was cross sectional, descriptive design. Sample consisted of adolescent girls in the age group of 15-18 years. Sample size was 110. Collected data were analysed by descriptive statistics. Findings of the study showed that 58.35% of the girls had improper practices regarding prevention of UTI, and 41.65 % girls had proper practices regarding prevention of UTI. Findings of the study show that there are significant association between out-of-home hours for study and prevention practices of UTI.

Key Words: Prevention, Urinary tract infection, Adolescents.

INTRODUCTION

Adolescence period is the time of transition from childhood to adulthood. During this period social, psychological and physical transformation and maturation occur. Urinary tract infection is a common disease affecting all age groups, from newborn to old age. Acute uncomplicated urinary tract infection is more prevalent among adolescent girls. This is the fourth main reason for outpatient visits among adolescent girls.²

Urinary tract infection in young children is mainly due to autoinfection from intestinal tract whereas in adolescent girls, it is often due to sexual activity.³ Adolescent sexual and reproductive health programme highlights the need for adolescent care and intersectoral approach for the improvement of the health status of the adolescent girls.⁴ Proper preventive measures like maintenance of good hygienic measures during menstruation, intake of more amount of water etc. also will help reduce the incidence of urinary tract infections.⁵

During adolescence, hormonal changes favour vaginal colonisation by nephritogenic strains of bacteria which can migrate to urethral area and cause urinary tract infections. It is associated with poor self-esteem, impaired quality of life, social isolation and depression. Many factors like low water intake, infrequent voiding and poor menstrual and sexual hygiene have been implicated in UTI during adolescence.⁶

In India, the national family health survey 2000 reported the prevalence of urinary tract infections among adolescent girls (10 to 19 years) as 16.6% and risk of bacteraemia developing in adolescent girls as 5 to 10%. Common risk factors for adolescent UTI are poor hygiene and poor dysfunctional voiding pattern. Use of synthetic under wears and panty hose and tight jeans, wet bathing suits, allergens/ irritants, hygiene sprays, bubble bath, perfumed toilet paper, sanitary napkin and soap may aid in the development of cystitis. Lack of adequate knowledge and practice related to maintenance of health leads to various genito-urinary infections during adolescence.⁷

Among adolescent girls, incomplete and in-coordinate voiding associated with constipation increases the risk for urinary tract infection.⁸ Urinary tract infection may occur due to allergies. Allergy towards food items can irritate the bladder wall and cause susceptibility to urinary tract infection. Allergy to latex condom, spermicides or oral contraceptives may cause urinary tract infection after sexual intercourse.⁹ Lack of adequate knowledge regarding menstrual hygiene may predispose to urinary tract infection.¹⁰

School girls may be afflicted by silent urinary tract infection which is due to inadequate intake of water and infrequent passage of urine. The main reason for this is unhygienic school toilets and improper teaching regarding menstrual hygiene.¹¹ Dehydration can cause urinary tract infection.¹² Based on 2001 census, 33% of Indian population belongs to the age group between 10 to 24 years. It is important to impart education and to involve both medical and health professionals to improve the health status of the adolescents.¹³

Personal experience of investigators and review of literature revealed that lack of adequate knowledge and hygienic practices are the common causes of UTI among high school girls. The above-mentioned factors motivated the investigators to undertake this study.

MATERIALS AND METHODS

Objectives of the study were to evaluate the prevention practices against UTI among adolescent girls. In the present study, adolescent girls in the age group of 15-18 years were included. Performance of the activities of adolescent girls related to prevention of UTI was evaluated using a structured questionnaire. Association between prevention practices of UTI and factors such as income status, out-of-home hours for study, place of residence, religion, maternal educational status, history of UTI and perceived satisfaction with sanitary facilities of school was studied.

Quantitative method with descriptive cross-sectional design was adopted for the study. A total sample of 110 adolescent girls between the age group of 15-18 years was selected for the study. Structured questionnaire to evaluate UTI prevention practices and its associated factors was the tool used for data collection. Self-reporting was the technique used. Pilot study was conducted among 10% of the total sample size and modification was made in the tool. The investigators obtained permission from the Principal of students and informed consents were taken from students. Samples were selected on the basis of inclusion and exclusion criteria. The

investigators had given instructions to the participants and data were collected from the classrooms using the semi structured questionnaire. Data were analysed using descriptive and inferential statistics.

RESULTS

Socio-personal characteristics

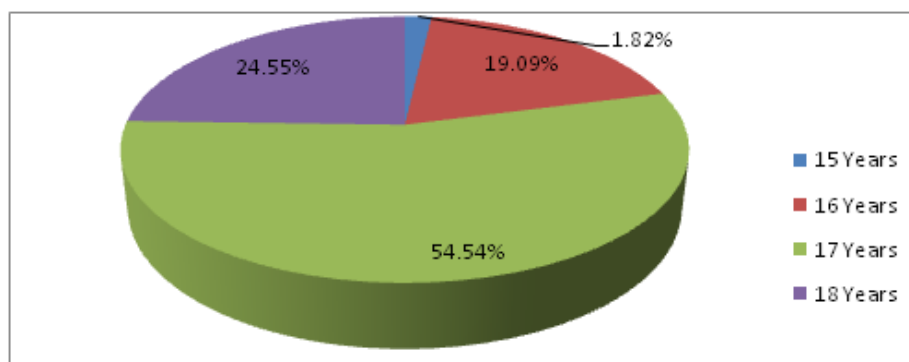


Figure - 1: Distribution of participants according to age

The highest percentage of students (54.54%) was in the age of 17 years. The lowest percentage (1.82%) belongs to the age of 15 years.

Table - 1: Distribution of participants according to place of residence

n = 110

Place of residence	Frequency	Percentage
Urban	85	77.28
Rural	25	22.72
Total	110	100.00

Highest percentage of sample (77.28%) lived in urban regions where as 22.72% lived in rural areas.

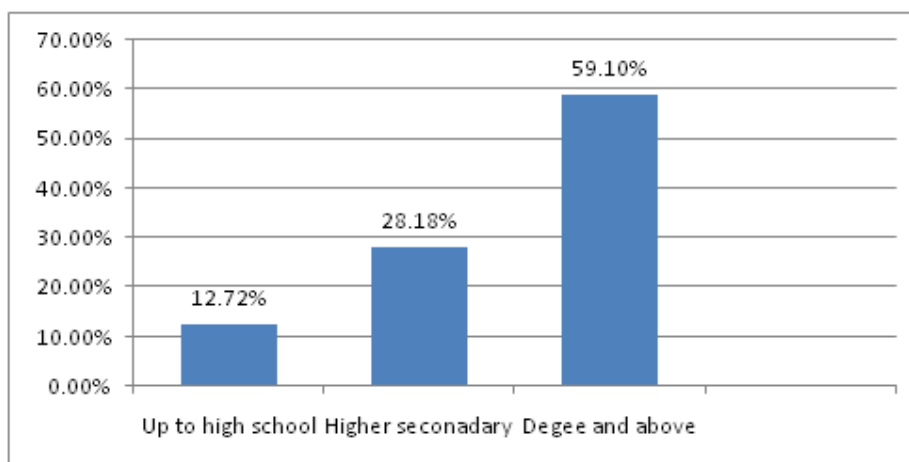


Figure - 2: Distribution of participants according to educational status of mother

Majority of the participants' mothers were educated up to degree level and above (59.10%), only 12.72% were educated up to high school, whereas 28.18 % are educated at the level of higher secondary.

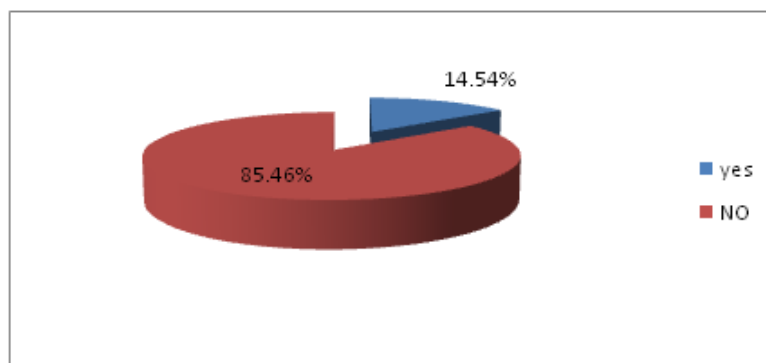


Figure - 3: Distribution of participants according to history of UTI in past 2 years

Figure - 3 shows that 85.46 % of the participants had no history of UTI in past 2 years, and 14.54% had history of UTI in past 2 years.

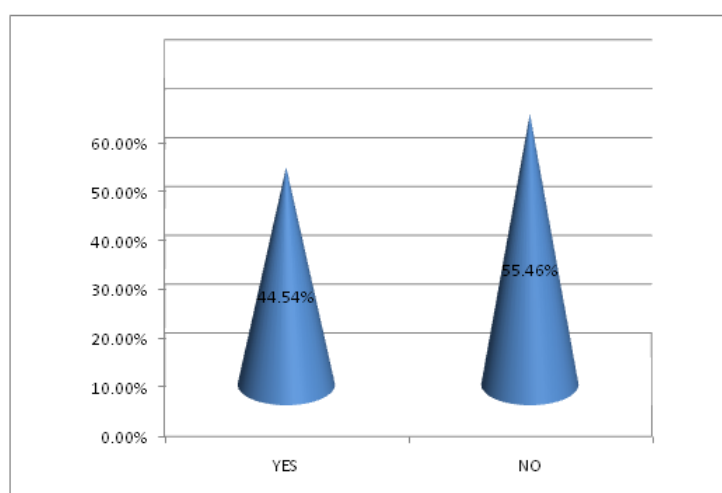


Figure - 4: Distribution of participants according to status of receiving information regarding prevention of UTI

Figure - 4 shows that 55.46 % of the participants had not received any information regarding prevention of UTI and remaining 44.45 % of the participants received information.

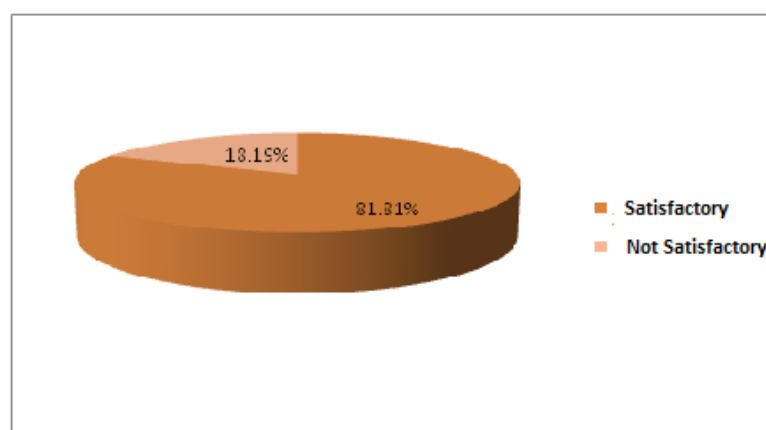


Figure – 5: Distribution of participants according to opinion regarding sanitary facilities available in the school

Figure – 5 shows that 81.81% of the sample reported that sanitary facilities available in the school were satisfactory and 18.19 % were not satisfied with the facilities.

Prevention practices of UTI and its associated factors

Table - 2: Distribution of participants based on UTI prevention practices

n = 110

Prevention of practices of UTI	Frequency	Percentage
Proper	45	41.65
Improper	65	58.35
Total	110	100.00

In this study, 58.35% of the participants followed improper practices related to UTI prevention and 41.65% of the participants followed proper practices.

Table - 3: Association of prevention practices of UTI with selected variables

Study Variables		Prevention practices of UTI		Chi- square
		Proper	Improper	
Place of residence	Urban	35	50	0.008
	Rural	10	15	
Education of mother	Up to High School	4	10	1.03
	Higher Secondary	12	19	
	Degree & above	28	37	
Type of family	Nuclear	36	7	1.34
	Joint	7	14	
History of UTI in past two years	Yes	4	12	1.93
	No	41	53	
Status of information received regarding UTI prevention	Yes	16	25	0.81
	No	33	36	
Sanitary facilities available in the school	Satisfactory	37	8	0.09
	Not satisfactory	8	12	
Out-of-home hours for study	7 – 8 hours	30	4	9.37
	9 – 10 hours	39	17	
	> 10 hours	10	10	

Results of bivariate analysis between UTI prevention practices and selected variables showed that there is an association between prevention practices of UTI and out-of-home hours for study. Association between UTI prevention practices and other variables under study such as place of residence, type of family, education of mother, history of UTI in last 2 years, information received regarding UTI prevention and sanitary facilities available in school were not found statistically significant.

DISCUSSION

The present study was focused to assess prevention practices of UTI and its associated factors among the adolescent girls. The objective of the study was to evaluate the prevention practices of UTI among adolescent girls and to identify the factors associated with prevention practices of UTI among adolescent girls.

In the present study it was found that 58.35% of adolescents followed improper practices regarding prevention of UTI and 41.65% of adolescents adopted proper practices. As per the study, 55.46% of participants did not receive any information regarding prevention of UTI whereas 44.54% got information from health personnel, family and friends. This finding is comparable with a descriptive study which was conducted in Tehran, to assess knowledge, attitude and behaviour of 250 female students between the age of 15 – 18 years regarding UTI and menstrual hygiene. The result revealed that, 77% of the female students had adequate knowledge of dysmenorrhoea. Only 32% of the females were practicing personal hygiene like use of hygienic material (sterile pad), taking bath and taking appropriate diet. 51.5% of the students were not taking bath for 8 days, after the onset of their menstruation.¹⁴ The study findings concluded that majority (68%) of the girls did not have appropriate knowledge regarding personal hygiene and did not practise positive health behaviour during menstruation.

CONCLUSION

The present study was focused on the assessment of prevention practices of UTI and its associated factors among adolescent girls in a selected school run by Thiruvananthapuram Corporation. Based upon the findings of the study, the following conclusions were drawn. The present study revealed that 58.35 % of the adolescent girls were following inappropriate practices and 41.65 % were following proper practices related to prevention of UTI. Practices are strongly associated with their out-of-home hours for the purpose of study

On the light of the study, the investigators put forward the following suggestions:

There should be a health clinic attached to every school. Health education regarding adolescent problems and their management should be provided by community health nurses.

Voluntary organizations can be motivated to conduct health-educational programmes. Family members should be included in health-education programmes. Prevention practices of UTI among adolescent girls should be made available to the public through mass media. Sanitary facilities at schools should be improved.

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