

A study to estimate the occurrence, knowledge, practice regarding prevention of urinary tract infection among adolescent girls in selected community areas, Dehradun, Uttarakhand

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ABSTRACT


Background: Genitourinary tract infection is the reproductive infections which are mostly affected the adolescent age groups girls. They are mostly vulnerable for reproductive growth and development. Hence, every adolescent as well as parents need to increased knowledge and good practice regarding prevention of urinary tract infection. Every child was closed with family especially adolescent girls are share problem or issues to her mother. It is necessary the mother provide the comfort to the adolescent girls because girls or mother both are play a main role to reduce the risk of urinary infection with the help of good life style, nutrition, and personal hygiene. **Objectives:** The objective of the study was to estimate the occurrence and assess the knowledge with identify the practice regarding prevention of urinary tract infection among adolescent girls. **Materials and Methods:** A descriptive (non-experimental) research approach was adopted for the study. A total of 469 house adolescent houses were considered for the data collection, of which 230 samples were found and taken for the study. Total enumerate sampling technique was used for the study, demographic data, structured questioners, and self-reported practice check list and was prepared as a tool for collecting data. The sample was interviewed and observed occurrence, knowledge, and practice. The investigator observed that the adolescent girls give less importance to menstrual hygiene. **Results:** The statically finding shows that the overall mean awareness score of the study participants was 12.29 ± 4.26 . Percentage distribution of knowledge level shows that majority (90%) of adolescents had moderately adequate knowledge and 5.6% of them had inadequate knowledge, whereas only 4.3% of adolescents had adequate knowledge on prevention of urinary tract infection. **Conclusion:** The study finding ensure that there is a great need for adolescent to maintain good menstrual hygiene, parents should encourage their children to maintain good hygiene during menstrual period and maintain personal care, frequently check-up and early deduction is needed to prevent any types of infection related to reproductive system. This study may help to develop healthy information and awareness of the avoidance of urinary tract infection among teenage girls.

KEY WORDS: Adolescent Girls; Genitourinary Tract Infection; Menstrual Hygiene

INTRODUCTION

Teenage are the greater sensitive age group. This phase of life includes various physical, psychological, and social changes

in one's life. Adolescents are usually influenced by their peer group more than anyone in life. They are mostly vulnerable for the reproductive growth and development. This requires them to be extra precautions regarding various body changes, that is, internal or external (secondary organ or hormonal changes). Acute unchallenging genitourinary tract infection is mostly frequent among female adolescent and is the main fourth cause within the visiting of outpatient among teenage girls.^[1] It is estimate the mostly 150 million genitourinary tract infections happen per year on a basis of global survey, outcome in more than 6 billion dollars in straight health maintenance

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services expenditure. The contamination in genitourinary tract infection produce indication such as high temperature, dysuria, and urgency and supra pubic enforcement or irritation, chronic pain, and coldness is also the main keys of elimination of urine infection in adolescent girls. Expenditure: The infection in genitourinary tract infection produce indication such as high temperature, dysuria, and urgency and supra pubic enforcement or irritation, chronic pain, and coldness.^[2]

National Dutch survey of normal practice conduct on year 2006 to identify the frequency amount and maintenance of genitourinary tract infection in 82,053 age group 0–18 years implement that 1.15% was having diagnosed of genitourinary tract infection and the frequency amount was 19 incidence every 1000 persons every year. In Hindustan, the national survey of family health 200 announce the occurrence rate of genitourinary infection in female teenage age 10–19 years as 16.6% and the chance of developing bacteria in female adolescent as 5–10%.

Times of India article January 2011 inform that only 12% of girls are used sanitary napkin period during menstrual period and maximum 88% of girls had used sanitized cloth. A study performed at Aurangabad, India; enunciate that 60% of urban area teenage girls used market accessible sanitary napkin whereas this was fixed to 60% in rural teenage girls.

Advance recognition of contamination by proper preventive care and maintenance will encourage to decrease the risk of genitourinary tract infection like maintenance of good and proper daily personal care during menstruation and adequate intake of water also help to decrease the risk of genitourinary tract infection. Healthy personal practices female adolescent is the main fourth cause within the visiting of outpatient among teenage girls.

It is estimate the mostly 150 million genitourinary tract infections happen per year on a basis of global survey, outcome in more than billion dollars in straight health-care services

In the current years, the huge publicity given to sanitary products by means of society interaction, such as television, radio, and other audio- visual aids has incidentally open the concept of menstruation period and urinary infection.^[3]

Problem Statement

The aim of the study was to estimate the occurrence, information, and practices regarding prevention of genitourinary tract infection among teenage girls in selected community area Dehradun, Uttarakhand.

Purpose

The goal of the study was to recognize the occurrence, information, and action of adolescent regarding prevention

of genitourinary tract infection in community areas using interview and questionnaire.

Rationale

Educating the adolescent related to prevention of genitourinary tract infection is an important part of systematic efforts to increase the awareness.

Objectives

The objectives are as follows:

- To estimate the occurrence of urinary tract infection among adolescent girls.
- To assess the knowledge regarding prevention of urinary tract infection among adolescent girls.
- To identify the practices regarding prevention of urinary tract infection among adolescent girls.
- To identify the association between occurrence of urinary tract infection with selected demography variables among adolescent girls.
- To find the association between knowledge score and selected demographic variable regarding urinary tract infection among adolescent girls.
- To find the association between the selected demographic variables and practice regarding prevention of urinary tract infection among adolescent girls.
- To find the association between occurrence and knowledge score regarding prevention of urinary tract infection among adolescent girls.

MATERIALS AND METHODS

The research design used in this study was descriptive non-experimental study. The research study was execution at selected community area Doiwala Dehradun, Uttarakhand. 230 adolescent girls selected in community areas through total enumerate sampling. The data were collected by the base line data, knowledge questionnaire, and self-reported practice checklist, the study was explained to the parents and participants with written consent of parents and adolescent girls. The data were collected with the help of various tools consisting of: Section A. Baseline data: Consist of adolescent basic baseline information

Section B. Structure knowledge questionnaire: Consist of learning of teenage regarding prevention of urinary tract infection

Section C. Self-reported practice: Practice related to the prevention of urinary tract infection.

Presentation of the Data

The research data were admitted in a master sheet for tabulation and statistical processing. To observe the relation,

the data were tabulated, analyzed, and the interpreted using descriptive and inferential statistics.

Data show that almost more than half of adolescent (60.8%) were aged between 13 and 16 years, and more no of girls study in 8 and 10 classes (57.3%), most of adolescent income below 10,000 (56.5%), most of adolescent having nuclear family (65.2%), most of adolescent living in rural areas (69.5%), mostly adolescent is Muslim (40%), majority adolescent girls mother is educated 59.8%, most of adolescent father is employed (82.5%), mother are mostly housewife (81.7%), mostly adolescent is non -vegetarian (52.6%), majority of girls having kutcha house (53.9%), majority adolescent having good toilet facilities (87.8%), and majority no of adolescent received education from teacher (77%). Data show that mostly adolescent age of menarche is 12–13 year (80%), most of adolescent having duration of flow is 4–6 days (64.3%), majority number of adolescent used sanitary pads (72.6%), and mostly adolescent having menstrual cycle within 28 days (54.3%) [Table 1].

The statistical finding shows that the overall mean awareness score of the study participants was (12.29 ± 4.26). Hence, it was inferred that mean percentage of knowledge score was more than half (61.45%).

Figure 1 presented mean knowledge score regarding disaster preparedness according to the domains which revealed that knowledge score was highest in management of urinary tract infection (5.95 ± 0.13) and the lowest in prevention of urinary tract infection (0.56 ± 0.08) Hence, it was interpreted that management of urinary tract infection was satisfactory as compared to the other two domains.

Percentage distribution of knowledge level illustrates that majority (90%) of adolescent had moderately adequate learning and 5.6% of them had inadequate learning, whereas only 4.3% of adolescents had adequate knowledge in prevention of urinary tract infection.

There was a significant interrelation between mean knowledge rate with selected baseline demographic variables, that is, educational status was significantly associated with mean knowledge score with calculates Chi-square value 9.18 which was statistically significant at $P < 0.001$. Age was also significantly associated with mean knowledge score calculated Chi-square value (9.18) which was significant at $P < 0.001$. Further, it could be interpreted that the higher the educational status and age of adolescents was better learning of prevention of urinary tract infection.

Table 2 shows that the majority of female adolescent having no infection of genitourinary tract infection past 6 months (60%), majority number of adolescent taken medicine 47 (73.4%), and those girls are taking home remedies that is 17 (26.5%).

Table 1: Characteristics of study participants ($n=230$)

Variables	Frequency (%)
Age in year	
a. 13–16	140 (60.8)
b. 17–19	90 (39.1)
Class	
a. 8–10	132 (57.3)
b. 11–12	89 (38.6)
c. Above 12	9 (3.9)
Family income	
Below 10,000	130 (56.5)
Above 10,000	100 (43.4)
Types of family	
a. Nuclear	150 (65.2)
b. Joint	80 (34.7)
Residence area	
a. Rural	160 (69.5)
b. Semi-urban	70 (30.4)
Religion	
a. Hindu	82 (35.6)
b. Muslim	92 (40)
c. Sikh	56 (24.3)
Mother education	
a. Non-formal education	92 (40)
b. Primary	51 (22.1)
c. Secondary	47 (20.4)
d. Graduation/postgraduation	40 (17.3)
Father education	
a. Non-formal education	50 (21.7)
b. Primary	91 (39.5)
c. Secondary	61 (26.5)
d. Graduation/post-graduation	28 (12.17)
Mother occupation	
a. House maker	188 (81.7)
b. Private sector	23 (10)
c. Business	19 (8.2)
Father occupation	
a. Unemployed	40 (17.3)
b. Private sector	55 (23.9)
c. Government sector	31 (13.4)
d. Business	104 (45.2)
Dietary habits	
a. Vegetarian	109 (47.3)
b. Non-vegetarian	121 (52.6)
Housing condition	
a. Kutcha	124 (53.9)
b. Brick house with cemented roof	61 (26.5)
c. Brick house without cemented roof	45 (19.5)

(Contd...)

Table 1: (Continued)

Variables	Frequency (%)
Waste disposal at home	
a. Burning	73 (31.7)
b. Composed dumping	65 (28.2)
c. Throwing in public dustbin	92 (40)
Toilet facilities at home	
a. Yes	202 (87.8)
b. No	28 (13.4)
Toilet facilities at school	
a. Yes	230 (100)
Separate toilet for girls	
a. Yes	230 (100)
Received Health education in past 6 month related to urinary tract infection	
a. Yes	109 (47.3)
b. No	121 (52.6)
Source of education (n=109)	
a. Teacher	84 (77)
b. Mother	25 (22.9)
Received health education related to menstrual hygiene	
a. Yes	138 (60)
b. No	92 (40)
Sources of education (n=138)	
a. Teacher	62 (44.9)
b. Mother	15 (10.8)
c. Friend	30 (21.7)
d. Internet	31 (22.4)
Age of menarche	
a. 12–13	185 (80.4)
b. 14–15	45 (19.5)
Duration of flow	
a. 1–3	55 (23.9)
b. 4–6	148 (64.3)
c. >6 days	27 (11.7)
No. of sanitary pads used	
a. 1–2	167 (72.6)
b. 3–4	63 (29.1)
Menstrual cycle in a days	
a. Within 28 days	125 (54.3)
b. 28 days	68 (29.5)
c. 32–45 days cycle	37 (16)

Table 2: Occurrence of urinary tract infection among teenage girls n=230

Diseases occurrence	Yes	No
	Frequency (%)	Frequency (%)
Occurrences of urinary tract infection in past 6 months	64 (28)	166 (60)

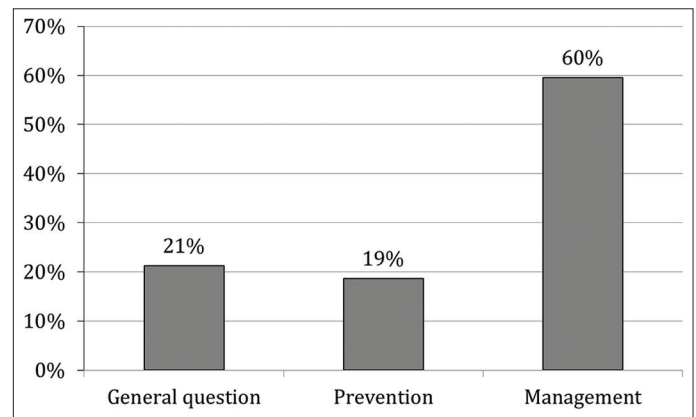


Figure 1: Mean knowledge score regarding prevention of urinary tract infection according to domains (n = 230)

There are no significant associations between occurrences of urinary tract infection past 6 months with selected baseline demographic variables.

There was a significant interrelation between occurrence of urinary tract infection past 6 months with knowledge score of adolescent girls with calculates Chi-square value 6.76 which was statistically significant at $P < 0.004$. Further, it could be interpreted that the higher the educational status of adolescents was better the knowledge of prevention of urinary tract infection.

Table 3 shows that the almost more than half of adolescent consume (5–8) glasses per day (52.1%), most of adolescent used sanitary pads (71.7%), most of adolescent drying undergarments in sunlight (79.1%), mostly adolescent not clean perennial areas after voiding (76.5%), majority number of adolescent wear undergarment that is 47.8%, and mostly girls change under garment once a day (43%).

There was a significant interrelation between practices with selected baseline demographic variables, that is, age was significantly associated with practice of cleaning of genital area with calculates Chi-square value 6.03 which was statistically significant at $P < 0.05$. Significant association between age Chi-square value 7.80 which was statistically significant at $P < 0.005$, mother education Chi-square value 9.60 which was statistically significant at $P < 0.001$, toilet facilities Chi-square value 9.5 which was statistically significant at $P < 0.001$ with the practice of wear undergarments daily. Significant association between religion was significantly associated with practice of water intake per day with calculates Chi-square value 9.62 which was statistically significant at $P < 0.02$. Significant association between age Chi-square value 10.3 which was statistically significant at $P < 0.001$, residence Chi-square value 6.84 which was statistically significant at $P < 0.004$, and toilet facilities Chi-square value 9.3 which was statistically significant at

Table 3: Frequency and percentage distribution of practice regarding prevention of urinary tract infection $n=230$

Category	Frequency (%)
Consume water per/day	
a. 1–4 glasses	110 (47.8)
b. 5–8 glasses	120 (52.1)
Voiding during school hours	
a. <2	128 (55.6)
b. ≥ 2	102 (44.3)
Types of sanitary Napkin used	
a. Cloth	65 (28.2)
b. Readymade sanitary napkin	165 (71.7)
When change sanitary napkin ($n=165$)	
a. Napkin is soaked	62 (37.5)
b. After urination and defecation	31 (18.7)
c. Before going to the bed and in early morning	55 (33.3)
d. Early in morning and evening hours	17 (10.3)
Drying undergarments	
a. Under sunlight	182 (79.1)
b. Under another cloth	48 (20.8)
Clean your genital area daily	
a. With water	189 (82.1)
b. With soap and water	26 (11.3)
c. Dettol/antiseptic solution/Savlon	15 (6.52)
Clean your genital area during menstruation	
a. With soap and water	120 (52.1)
b. Dettol/antiseptic solution/Savlon	10 (4.34)
Wear undergarment every day	
a. Yes	110 (47.8)
b. No	20 (8.6)
Changing undergarment daily ($n=110$)	
a. Once a day	99 (43)
b. It gives foul smell	11 (4.7)
Care of pubic hair	
a. Clipping	5 (2.17)
b. Removing with razor	97 (42.1)
c. Remove with hair removing cream	73 (31.7)
d. Do not remove hair only clean hair	55 (23.9)
Wash perineal area every time after voiding	
a. Yes	54 (23.4)
b. No	176 (76.5)
Direction to clean the genital area ($n=54$)	
a. Front to back	23 (42.5)
b. Back to front	12 (22.2)
c. Several repetitive movement	5 (9.2)
d. In any direction	14 (25.9)

$P < 0.001$ with the practice of used menstrual pads. Mother education was significantly associated with practice of wash perineal area after voiding with calculates Chi-square value 9.04 which was statistically significant at $P < 0.001$. Further,

it could be interpreted that the higher age, education, mother education, and toilet facilities of teenage were better the practice of avoidance of urinary tract infection.

DISCUSSION

Every health problems situation cannot be prevented, but the adequate knowledge regarding prevention of urinary tract infection can be minimized with effective prevention. Adolescents can share learning to their friends, families, and communities so that it is essential to meet the educational need to optimize the quality of life. The purpose of the study was to assess the knowledge of adolescents regarding prevention of urinary tract infection and to improve the knowledge of adolescents regarding prevention of urinary tract infection which would empower them to be prepared for the future incidences. The content validity of the adopted tool was established by validators' agreements. The validated tool was given to language expert for translation and the language validity was determined by the retranslation. Pretesting of tool was done on five adolescents of Jolly Grant Doiwala, Dehradun. Reliability of the knowledge questionnaire was determined by the test-retest ($r = 0.94\%$), split half ($r = 0.97\%$), inter-rater ($r = 0.95\%$), and Pearson's formula and for self-reported practice by the test-retest (0.83%), and inter-rater (0.85%) on 20 adolescents of Jolly Grant Doiwala Dehradun. Pilot study was done on 20 adolescents of Chandmari Doiwala, Dehradun. The pilot study did not show any problem and the research tools were found to be feasible, practicable, and acceptable. Data collection was done in the month of January 2018 using a structured questionnaire and self-reported practice checklist. The analysis of the obtained data was performed according to the objectives of the study both graphic statistics and inferential statistics were applied for examination and interpretations

Description of Demographic Profile of Adolescents

The present finding in this study maximum 140 (60.8%) number of adolescent was 13–16 years, in this study, mostly 132 (57.3%) girls studying in (8–10) class. A finding of study was compatible with the descriptive cross-sectional study conducted by Priya *et al.* (2017) at Tamil Nadu. Finding of study maximum number of adolescent age group in study is most 224 (44.6%) of the girls age group was 14–16 years.^[4] This study mostly 271 (54%) girls are studying in 5–10 class. In the research study, it was seen mostly 150 (65.2%) no of adolescent living with nuclear family. In this present study, mostly adolescent from rural area 160 (69.5%) In this study, least 31 (13.4%) number of adolescent father are government employed. A finding of the study was compatible with the pre-experimental study conducted by Saji *et al.* in 2018 at Malappuram district. Research result of the study showed that mostly 53 (88.3%) adolescent living with nuclear family. Mostly 37 (61.66%) adolescent from rural areas.^[5] This study

also showed that least 8 (13.33%) no of adolescent father government employed. In this study, majority 188 (81.7%) no of adolescent mother was housewife, in this study, most 92 (40%) of girls throwing pads/cloth in public bin. The result was consistent with the quasi-experimental study by Al-Kotb *et al.* in 2016 at Egypt. The finding showed that the majority 353 (76.4%) number of adolescent mother are house maker. In this study, pre-test 121(61.42%) proper disposal of pads/cloth, in post- test 197 (100%) adolescent proper disposal of pads/cloths.^[6]

Other Variables

Mostly 185 (80.4%) girls age of menarche was 12–13 years, most 148 (64.3%) of the girls having duration of flow were 4–6 days, most of girls used 1–2 pads per day, mostly adolescent having menstrual cycle within 28 days 125 (54.3%). The result was consistent with descriptive cross-sectional study by Priya *et al.* (2017) at Tamil Nadu. The finding of study was mostly 270 (53.8%) the age of menarche was 12–14 years. Mostly 391 (77.9%) adolescent having duration of flow 2–7 days, mostly 328 (65.3%) girls used (2–5) pads per-days, and mostly 339 (67.5%) girls having regular menstrual cycle.^[4]

Estimate the Occurrence of Urinary Tract Infection Among Adolescent Girls

Mostly 166 (60%) of the female adolescent not having urinary infection past 6 months. Most 47 (73.4%) of the female adolescent taken medicine for control urinary tract infection Result was consistent with non-experimental descriptive study by Kripa *et al.*, in 2016 at Kerala. Finding of the study was majority 83.33% no of adolescent having no history of urinary tract infection.^[7]

Knowledge Regarding Prevention of Urinary Tract Infection Among Adolescent Girls

Findings of the present study illustrate that the overall mean awareness score of the study participates was 12.29 ± 4.26 . The result was consisting with a pre-experimental study on identify the expected result of planned education program on information regarding implementation of genitourinary tract infection in mother of children with genitourinary tract infection. The result of the study present that overall mean of information in pre-test is 8.11 ± 2.89 and in post-test (17.37 ± 1.57). The majority (59%) number of female adolescent had knowledge regarding management of genitourinary tract infection (5.95 ± 0.13), prevention of genitourinary tract infection (18.6%), 0.56 ± 0.08 , general question (21.2%), 1.47 ± 1.10 . This study maximum 207 (90%) number of adolescent having moderately adequate learning related to prevention of genitourinary tract infection, 13 (5.6%) had inadequate knowledge score, and only 10 (4.3%) had adequate knowledge score. The result consistent

with pre-experimental study by done by Hemavathy and Sarathi (2017) at Tamil Nadu. The finding of study in pre-test maximum 14 (46.7%) no of female adolescent having moderately adequate knowledge score regarding prevention of genitourinary tract infection, 11 (36.6%) had adequate knowledge, 5 (16.7%) had inadequate knowledge, after post-test maximum 26 (86.7%) number of female adolescent had adequate knowledge, 4 (13.3%) adolescent had moderate adequate knowledge, and no one adolescent had inadequate knowledge.^[8]

Habits Regarding Prevention of Urinary Tract Infection

Majority 120 (52.1%) number of adolescent consume (5–8 glasses) water per/day, majority 128 (55.6%) number of adolescent voiding <2 during school hours, most 165 (71.7%) of the number adolescent girls used readymade sanitary napkin, most of girls change sanitary napkin is soaked 62 (37.5%), most 182 (79.1%) of the adolescent drying undergarments under sunlight, mostly 189 (82.1%) adolescent girls clean the genital area with water, most 120 (52.1%) of the adolescent clean the perineal area during menstrual period with soap and water, mostly 110 (47.8%) adolescent wear undergarments every day, most 99 (43%) of the adolescent change undergarment once a day, mostly 97 (42.1%) girls care of pubic hair removing with razor, most 176 (76.5%) girls not wash perineal area every time after voiding, and most 23 (42.5%) adolescent clean the perineal area front to back. Result consistent with cross-sectional study by Neelkanth *et al.* (2017) at Bhopal, Madhya Pradesh, India. In pre-test 31 (15.73%) adolescent clean genitals with plain water in post-test 197 clean genital areas with plain water. In pre-test 156 (79.18%) adolescent clean genital area with soap and water during menstrual. Study finding in pretest 115 (58.3%) adolescent used sanitary pads, in post-test 2 (1.01%). In pre-test 52 (26.39%) adolescent used cloth, post-test 29 (14.72%).^[9]

Association between Knowledge Score and Selected Demographic Variables Among Adolescent Girls

In this study, there are significant relationship between information score with age and education of adolescent girls age (Chi-square = 9.20), ($P = 0.001$), and education (Chi-square = 9.18), ($P = 0.001$). Result consistent with Pre-experimental study by Chandekar *et al.* (2018) at Maharashtra, India. Research finding of study in post-test showed that knowledge score with age of adolescent there are significant association (Chi-square = 32.4), $P = 7.82$.^[10]

Association between Demographic Baseline Data and Practice Score

Finding of the study, there are not significant relation with practice of water intake per day with choice baseline demographic data. Finding of the study, there are significant

relation practice of types of sanitary pads used between age ($P = 0.001$), living area ($P = 0.004$), and toilet facilities ($P = 0.001$).

Finding of the study, there are no significant association between cleaning of genital area with selected baseline data. In this study, there are significant association between selected demographic variable age (Chi-square = 7.80), ($P = 0.005$), mother education (Chi-square = 9.60), ($P = 0.001$), and toilet facilities at home (Chi-square = 9.5), ($P = 0.001$) with practice of wear undergarments daily. Finding of the study showed that there are significant association between mother education ($P = 0.001$) and practice of wash perennial area after voiding. The finding of the present study was forwarding with cross-sectional study on menstrual hygiene and related personal hygiene practices performed by Priya *et al.* (2017) at Puducherry. The result of study showed that there are association between age and types of absorbent, number of changing times ($P = 0.004$ and 0.043), disposal of pads, and washing of genitals areas and products used for hand washing ($P = 0.228$ and 0.404).^[4]

Association between Prevalence Rates of Genitourinary Tract Infection with Demographic Profile

Finding of the study, there are sufficiently association between income of family (Chi-square = 8.56), ($P = 0.001$) with occurrence of urinary tract infection. The present study findings supported by the cross-sectional study by Muthulakshmi and Gopalakrishnan, on urinary tract infection in female adolescent Tamil Nadu. The result of this study showed that there are significant association between occurrence and the education ($P = 0.01$), social income status ($P = 0.01$).^[11]

Association between Occurrence and Knowledge Scoring Regarding Prevention of Genitourinary Tract Infection

These research studies there are significant association between occurrence and knowledge scoring of genitourinary tract infection ($P = 6.76$), ($P = 0.004$), ($df = 1$). The present finding different from the descriptive cross-sectional study among 528 adolescent girls in Mahatma Gandhi Medical Collage Puducherry, Tamil Nadu because both study explain different association. This study finds association between demographical variable and practice regarding prevention of urinary tract infection. This study shows that there are association between age and types of absorbent areas, changing times of pads ($P = 0.004$ and 0.43), disposal of pad, washing genital areas, and products used for hand washing ($P = 0.228$ and 0.404).^[4]

Strength

Enhancement of knowledge, skill, and values about prevention of genitourinary tract infection at individual,

family, and community level is the most urgent need to reduce the incidence rate.

Limitation

1. Generalizability of the study finding may be limited due to selection of single community setting.
2. Present study only includes occurrence and assessment of knowledge and practice (no intervention was included in the study).
3. One time data collection was done.

CONCLUSION

Based on the study findings, it can be concluded that the adolescent girls are still not aware about the various symptoms of UTI and even they do not practice menstrual hygiene well. It arise a need of concurrent awareness program in schools for better reproductive health of the girls. Not only girls but also it equally important for their mothers to be involved in these awareness programs as mothers are the best friend of the daughters.

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