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Knowledge, Attitude And Practice Of Genitourinary Tract Infection Prevention Among Students Of Government Secondary School Luggere Yola, Adamawa State

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ABSTRACT
Background*: World health organization (WHO) identifies adolescence as the period in human growth and development that occurs after childhood and before adulthood, from ages 10 to 19. Adolescence is a stage between childhood and manhood/womanhood, it represents one of the critical transitions in the life span and is characterized by a tremendous pace in growth and change that is second only to that of infancy. Adolescent comprises about half of the world population; lack of adequate knowledge on health matters may lead to various Genitourinary diseases among adolescent. Genitourinary tract Infection is a bacterial infection that affect any part of genital and urinary tract, occurs when too much bacteria especially those that inhabit the gastrointestinal tract and skin enter the vagina through the anus and thrive inside the urinary system (kidney, ureters, bladder and urethra) and consequently reproduce rapidly due to available nutrients (WHO, 2023).*
Methods*: descriptive research survey was conducted among 200 students of Government secondary school Luggere aged 15 years and above who were residents of Yola, Adamawa state, and gave informed consent. Non-consenting individuals and residents outside the selected schools were excluded. Respondents were selected using 'Yamane' formula. Data were collected using a researcher-administered structured questionnaire adapted from a previous community mental health study. Data were analysed using Microsoft Excel and presented as frequencies, percentages and 0.05% confidence intervals. Administrative permission was obtained, informed consent was secured, and confidentiality was maintained throughout the study.*
Results*: The mean age of respondents are within the age bracket of 15-20 years, 100% female, 45% are Hausa/Fulani, 25% are Igbo and 30% are Yoruba, 98% are singe, and 2% are married, 68% practice Islamic as religion others with 32% are christian and 34% of the respondents are in SS1, 33% in SS2 and 33% are in SS3. 60% have heard about genitor urinary tract infection, 50% of the respondent understand genitor urinary tract infection is any infection that affect both urinary and reproductive system of human being, 55% of the respondent reported genitor urinary tract infection are more common for female than male, 38% of the respondent state that poor personal hygiene as the main causes of genitor urinary tract infection and 35% of the respondent report vaginal itching as a symptoms of genitor urinary tract infection.*
Conclusion*: Genitourinary track infection was relatively high, with good Knowledge, good attitude towards prevention and good practices measure led to prevention of genitor urinary tract infection.*
Keywords*: Knowledge, Attitude, Practice, Genitor, Urinary.*

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I. BACKGROUND OF THE STUDY.

World health organization (WHO) identifies adolescence as the period in human growth and development that occurs after childhood and before adulthood, from ages 10 to 19. Adolescence is a stage between childhood and manhood/womanhood, it represents one of the critical transitions in the life span and is characterized by a tremendous pace in growth and change that is second only to that of infancy. Adolescent comprises about half of the world population; lack of adequate knowledge on health matters may lead to various Genitourinary diseases among adolescent. Genitourinary tract Infection is a bacterial infection that affect any part of genital and urinary tract, occurs when too much bacteria especially those that inhabit the gastrointestinal tract and skin enter the vagina through the anus and thrive inside the

urinary system (kidney, ureters, bladder and urethra) and consequently reproduce rapidly due to available nutrients (WHO, 2023).

Infections of urinary tract could manifest differently depending on the site of the Infection and length of time involved, those that affect the lower urinary tract are called cystitis involving bladder alone with symptoms including painful urination, burning sensation, either frequent or urge to urinate. While those that affect upper urinary tract are the pyelonephritis involving kidney and other organs. The symptoms of the upper urinary tract include; fever and flank pain during urination in addition to those of the lower urinary tract (Widiasmoro, 2020).

Urinary tract infections are characterized by colonization, invasion and multiplication of microorganisms in the urinary system. UTI is an infection of the urinary system that may involve the lower urinary tractor both the lower and upper urinary tract. UTIs are conside as the most frequent bacterial infections worldwide (Foxman, 2023). UTI is a common bacterial infection known to affect the different parts of the urinary tract and the occurrence is found in both males and females. Urinary tract infections (UTIs) are caused by pathogenic microorganisms in urinary tract (the normal urinary tract is sterile above the urethra). UTIs are generally classified as infections involving the upper or lower urinary tract and further classified as uncomplicated or complicated depending on other patient related conditions. The urinary tract is the most common site of nosocomial infection, accounting for greater than the total number reported by hospital and affecting about 600,000 patients each year. Manifestations of (UTI) account for more than 7 million heath care visits and 1 million hospital admission annually in United States and the incidence of UTI is second only that of upper respiratory infection in primary care (Munther, 2021).

Health education about healthy behaviors can affect their susceptibility to the disease. UTIs can be prevented by appropriate healthy behaviors. Schools and all public places should have basic and clean sanitation facilities. Few reports were done on this subject before. Common risk factors for urinary tract infection is sexual intercourse, pregnancy, poor hygiene, dysfunctional voiding patterns, or a history of female genital mutilation. In women, synthetic underwear and pantyhose, tight jeans, and wet bathing suits, allergens / irritants - famine hygiene sprays, bubble baths, perfumed toilet paper, sanitary napkins, and soaps may aid in the development of cystitis in some women. Among adolescent girls, Incomplete and in-coordinate voiding associated with constipation increases the risk for urinary tract infection (Verneda 2022).

Reproductive Tract Infections are defined as any infections of the reproductive system that result from the overgrowth of the bacteria or other organisms that normally live in the vagina, in addition to inadequate infection prevention practices. One cause of maternal morbidity and mortality, as the cause of loss of healthy life among women of reproductive age, is reproductive tract infections (RTI). Globally, reproductive tract infections cause loss of healthy life among women of reproductive age, is reproductive tract infections (RTI).

Globally, reproductive tract infections cause serious health problems (Sritavastava, 2019). According to the body of literature, health reproductive systems and functions are essential components of the overall health of females. Many internal and external aspects, however, may challenge the capacity of individuals to maintain reproductive health; other factors related to the maintenance of reproductive health may be behavioral and involve the participation of an individual in risky practices (Hajir, 2020).

RTIs are usually seen as a 'silent epidemic and are one of the major public health issues. In addition, females with self-reported reproductive morbidity symptoms do not seek treatment due to existing reproductive health harms and inhibitions. Not only can untreated infections lead to health consequences, but in terms of emotional distress related to gynecological morbidity and consequences (Prusty and Unisa, 2019).

Moreover, infection is more likely caused due to reduced acidity either endogenously by hormones or exogenously by vaginal unhygienic practices as poor menstrual hygiene and the use of reusable cloth, in addition to the personal unhygienic behaviors such as keeping the genital area moist, using contaminated towels, and using irritating and tight nonabsorbent underwear. The recurrence of vaginal infection is defined by four or more episodes of infection in a year; this is due to bad personal hygiene behaviors. Genital hygiene is the major component of females' health and is very important for the protection of reproductive health. The genital area should be kept clean but excessive cleaning procedures which disturb the vaginal flora should be avoided (Bithew et al. 2019).

The study was anchored on Health belief theory, which is a psychological framework used to understand individuals' health behaviors and how they make health-related decisions. Applied to genitourinary track infection prevention, the theory helps to explain government secondary school Luggere may attribute behaviour and attitude that helps in preventing genitourinary track infection. In the context of students' knowledge, attitudes, and practices (KAP) regarding genitourinary tract infection (UTI) prevention, the HBM can offer valuable insights into how these factors interplay and influence preventive actions.

II. METHODOLOGY

Research Design

A descriptive survey design was adopted to assess the knowledge, attitudes and practice of genitourinary track infection prevention among tudents of Government secondary school Luggere Yola, Adamawa state. The design allowed data to be collected from respondents at a single point in time without manipulating study variables.

Study Setting

The study was conducted in Yola North L.G.A, Adamawa State Government Secondary school Luggere. The Government Secondary school was established in 1973, the school is situated in Upper Luggere, Luggere ward along Aliyu Mustapha Academy Yola, with many classrooms buildings to accommodate more than 2000 students, the school is widely known for its sports activities and quiz competition along it axis, also graduated so many prominent citizens. Lastly GSS Luggere is surrounded by St. Theresa Catholic Church, Mahmud Guest Inn and some residentials homes.

Study Population and Eligibility Criteria

The study population comprised of female students of Government secondary school Luggere. Eligible participants were residents aged 15 years and above who were available during data collection and gave informed consent to participate. Non-consenting individuals, residents below 15 years and persons who were not residents of the selected school were excluded from the study.

Sample Size and Sampling Technique

A total of 100 students participated in the study. A simple random sampling technique was used in drawing sample from the students of Government secondary school Luggere, so that all the samples from the population will have equal chance of being selected from entire population. The samples were then identified, after which respondents were selected using random sampling until the required number of participants was reached.

Instrument for Data Collection

Data were collected using a researcher-administered structured questionnaire adapted from Effiong et al. (2019). The questionnaire consisted of sections on socio-demographic characteristics, knowledge of students toward prevention of genitourinarinary tract infection, attitude of students toward prevention of genitourinarinary tract infection, and practice of students toward prevention of genitourinarinary tract infection. The instrument was reviewed for face and content validity by the research supervisor and colleagues, and corrections were incorporated before administration.

Data Collection Procedure

The researcher and trained assistants administered the questionnaire to eligible and consenting respondents. The purpose of the study was explained to respondents before data collection. Questionnaires were checked for completeness and no personal identifiers were collected.

Data Analysis

Data were coded, entered into Microsoft Excel, checked for completeness and analysed using descriptive statistics. Frequencies and percentages were used to summarize demographic characteristics, knowledge of students toward prevention of genitourinarinary tract infection, attitude of students toward prevention of genitourinarinary tract infection, and practice of students toward prevention of genitourinarinary tract infection. Knowledge scores were categorized as strongly agreed, agreed, disagree and strongly disagree. Attitude items were reported individually to show the pattern of prevention of genitourinary tract infection. No causal inference was made because of the descriptive research design.

Ethical Considerations

An introductory letter was obtained from the Department of Nursing Sciences, and administrative permission was obtained from the school Principal before data collection. Informed consent was obtained from respondents after explaining the purpose of the study, voluntary participation and the right to withdraw. Confidentiality and anonymity were maintained by excluding names and other personal identifiers from the questionnaire.

III. RESULTS

A total of 100 respondents participated in the study. Results on socio-demographic characteristics, knowledge of students toward prevention of genitourinarinary tract infection, attitude of students toward prevention of genitourinarinary tract infection, and practice of students toward prevention of genitourinarinary tract infection are presented below.

Table 1: Socio-demographic characteristics of respondents (N = 100)

Variable	Category	Frequency	Percentage (%)
Age	10-15 yearsr	33	33
Age	15-20years	65	65
Age	20 years and above	2	2
Gender	Female	100	100

Ethnicity	Hausa/Fulani	45	45
Ethnicity	Yoruba	30	30
Ethnicity	Igbo	25	25
Marital status	Single	98	98
Marital tatus	Married	2	2
Marital status	Widow	0	0
Religion	Islam	68	68
Religion	Christian	32	32
Class	SS1	34	34
Class	SS2	33	33
Class	SS3	33	33

Table 1 shows that the largest age group was 15–20 years (65%), while the mean age of respondents was years. All respondents were female (100%), Hausa (45%), Yoruba (30%) and Igbo(25%), Islam (68%) and Christian respondents (32%), SS1 (34%), SS2 (33%), and SS3 (33%).

Table 2: Knowledge of genitourinary track infection among respondents (N = 100)

Variable	**Category**	**Frequency**	**Percentage (%)**
Ever heard of genitourinary track infection	Yes	60	60
	No	40	40
What is genitourinary track infection	Infection that affects the urinary system of human being	40	40
	Infection that affects the representative system of human being	10	10
	Infection that affect both urinary and reproductive system of human being	50	50
Genitourinary tract infection are more common among female than male	Yes	55	55
	No	45	45
Which of the following can cause genitourinary tract infection	Poor personal hygiene	38	38
	Poor environmental hygiene	22	22
	Multiple sex parners	20	20
	Unprotected sex	30	30
Which of the following are common sign and symptoms of genitourinary tract infection	Vaginal itching	35	35
	Pain during urination	16	16
	Vaginal discharge	24	24
	Increased Vaginal mucus	25	25

Table 2 shows that majority of respondent with a percentage of 60% have heard about genitor urinary tract infection, 50% of the respondent understand genitor urinary tract infection is any infection that affect both urinary and reproductive system of human being, 55% of the respondent reported genitor urinary tract infection are more common for female than male, 38% of the respondent state that poor personal hygiene as the main causes of genitor urinary tract infection and 35% of the respondent report vaginal itching as a symptoms of genitor urinary tract infection.

Table 3: Student Attitude on Genitor Urinary Tract Infection Preventions

Variables	SA	A	D	SD	Mean (X)	Remark
Discussing on prevention of genitor urinary tract infection should be performed and without embarrassment.	20	25	30	25	2.4	Disagreed
It's important to seek medical advice if experiencing any symptoms of genitourinary tract infection.	35	13	17	35	2.5	Disagreed
Practicing good personal hygiene can significantly reduce the risk of genitourinary tract infection .	37	25	17	13	3.4	Agreed
Prolong use of antibiotic unless when prescribed by medical doctor should be avoided for prevention of genitor urinary tract infection.	15	20	30	35	2.0	Disagreed
Girls should drink plenty of water and avoid use of irritant such as soap and douches on the genitor urinary area to reduce the risk of infection.	20	21	31	20	2.6	Disagreed
Aggregated mean					2.6	M

Table 3 shows that majority of the respondent agreed that Practicing good personal hygiene can significantly reduce the risk of genitourinary tract infection with the mean value of 3.4, while Girls should drink plenty of water and avoid use of irritant such as soap and douches on the genitor urinary area to reduce the risk of infection with the mean value of (2.6), Prolong use of antibiotic unless when prescribed by medical doctor should be avoided for prevention of genitor urinary tract infection with the mean value of (2.0) It's important to seek medical advice if experiencing any symptoms of genitourinary tract infection with the mean value of (2.5) was rejected.

Table 4: Student Practice on Genitor Urinary Tract Infection Prevention

Variable	Frequency	Percentage (%)
How often do you carry out the following personal and environmental hygiene measures?		
a. Hand hygiene after use of bathroom.		
Always	30	30
Most time	35	35
Some time	30	30
Never	5	5
b. Routine daily bath		
Always	20	20
Most time	47	47
Some time	28	28
Never	3	3
c. Bath after staining/discharge		
Always	50	50
Most time	37	37
Some time	12	12
Never	1	1
d. Cleaning of toilet and bathroom		
Always	38	38
Most time	29	29
Some time	27	27
Never	6	6
How often do you seek medical advice on genitor urinary tract infection	4	4
Always	30	30
Most time	21	21
Some time	45	45
Never		

Cleaning the anus from front to back after defecation		
Always	4	4
Most time	30	30
Some time	21	21
Never	45	45
Cleaning the anus from front to back after defecation		
Always	29	29
Most time	40	40
Some time	35	35
Never	6	6
Drying underwears under sunlight		
Always	20	20
Most time	25	25
Some time	10	10
Never	45	45
Menstrual hygiene		
a. Regular change of sanitary pad		
Always	15	15
Most time	20	20
Some time	35	35
Never	30	30
b. Use of warm water to clean the genital area		
Always	20	20
Most time	50	50
Some time	25	25
Never	5	5
c. Keeping the genital area clean		
Always	30	30
Most time	15	15
Some time	30	3o
Never	10	10

Table 4 shows the practice on genitor urinary tract infection prevention where the highest percentage 35% reported to wash their hands after use of bathrooms most times, 47% reported to take their routine daily bath, 37% bath after staining always 38% reported to wash their bathrooms most times. 45% they also reported they never seek medical advice, 35% also reported that sometime they clean their anus from front to back after defecation, the student also reported that they never dry their under wears under sunlight with the percentage of 45%, majority of the respondent reported most time they change their sanitary pads with the percentage of 50%, the respondent reported using warm water sometime to clean the genital area with the highest percentage of 35% and respondent reported to keep the genital area clean most time.

IV. DISCUSSION

This study reveals that secondary student has fair knowledge towards prevention of genitor urinary tract infection. The predominant part of respondent agreed that vaginal itching, pain in urination, vaginal discharge are the common signs of genitor urinary tract infection, This is in line with study conducted by {Tahsein et al 2021}, and study by smith lee, j. (2020) indicate that many students have a higher understanding of GUIs, including causes, symptoms, preventive measures and found that about 70% of students can identify common risk factors associated with GUIs Which shows that most of the student are having vaginal itching, dysuria, vaginal discharge, redness on the vulva as the common signs of genitor urinary tract infection.

However, some of the respondents disbelieves that female are at high risk of developing genitor urinary tract infection than male, This finding is in harmony with the study conducted by {Abuabat et al 2020}, which shows that the respondents failed to identify female gender as a risk factors of developing genitor urinary tract infection.

This study revealed that the respondent has poor attitude towards prevention of genitor urinary tract infection. The predominant part of respondent that state girls should drink plenty of water and avoid use of irritant such as soap and douches on the genitor urinary area to reduce the risk of infection, Prolong use of antibiotic unless when prescribed by medical doctor should be avoided for prevention of genitor

urinary tract infection, It's important to seek medical advice if experiencing any symptoms of genitourinary tract infection was rejected . accepted that Practicing good personal hygiene can significantly reduce the risk of genitourinary tract infection this is line with the study conducted by (Ameetha raj et al 2019) which shows that student had inappropriate attitude on genitor urinary tract infection prevention, another study also by Thompson et al. (2019),reveals that students often underestimate their vulnerability, leading to complacency in practicing safe behaviors, A significant barrier to seeking help or information is the stigma associated with GUIs. Gonzalez et al. (2022) highlighted that students often avoid discussions about GUIs due to fear ofjudgement.

It also reveals that student have poor practices toward prevention of genitor urinary tract infection as they fails to carry out those practices measure this line with the study carried out by {Sokhela et al.,2020} which state that student tend to ignore the practices measure that will help to prevent genitor urinary tract infection, and study by Brown et, al.,(2023) showed that, while many students are aware of preventive measures such as safe sex practices, hand hygeine after use of bathrooms**,** menstral hygeine only a minority consistently applied these practices.

MPLICATIONS TO NURSING

Nursing is a profession that cognitively recognizes the needs of individuals, family and community, provide care for those that re ill and interpersonally relate with different people from diverse cultures. This research will be beneficial to nurses and to disseminate relevant information about genitourinary track infection from secondary school students and other places in other to adopt good and effective health practices.

V. CONCLUSION

This study assessed the knowledge attitude and practice of genitor urinary tract infection prevention among student government girl's secondary school Luggere Yola North local government of Adamawa state. The result of the study revealed that student had a good Knowledge, poor attitude towards prevention and poor practices measure for prevention of genitor urinary tract infection.

VI. RECOMMENDATION

Based on the findings, the following recommendations are made:

1. Effort should be made by the government to ensure that, there is enough toilets and teachers should make sure that all the toilets are kept cleaned.
2. Nurses should establish program that aim at creating sensitization that will help clear the doubt, perception, and misconception of student towards prevention of genitor urinary tract infection.
3. Guidance and counselling committee should always counsel the student's on the effect and complications of genitor urinary tract infection.

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

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