

Incidence of Urinary Tract Infections Among Female Students of Babcock University, Ilishan-Remo, Ogun State

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Abstract

Urinary Tract Infection (UTIs) is an infection caused by the presence and growth of microorganisms anywhere in the urinary tract. It is perhaps the single most common bacterial infection of mankind. This study was intended to investigate the incidence of UTI among female students of Babcock University Ilishan-Remo Ogun state. A descriptive, quantitative research design was used. Convenience sampling was used to select 150 females for this study. A questionnaire was used to estimate the level of knowledge on UTI, the incidence of Urinary tract infections, the predisposing factors of acquiring UTI and the risk factors of developing UTI among female students in Babcock University, Ilishan Remo, Ogun state. Of all the 150 questionnaires distributed, 146 were retrieved and the SPSS version 18.0 was used for statistical analysis. This study revealed 98 (67.1%) of the total 146 respondents know about UTI. The incidence of UTI was 52 (35.6%) while 66 (45.2%) have experienced it once in the past 6 months and 43 (29.5%) have experienced it more than three times in the past 6 months. 130 (89.0%) of the respondents indicated that women are more predisposed to UTI, 131 (89.7%) indicated that dirty toilets predisposes a female to UTI. 141 (96.6%) of the respondents attributed Poor hygiene as a risk factor of UTI, 130 (89.0%) indicated that multiple sexual partners is a risk factor of UTI. In conclusion, dirty toilets and poor personal hygiene contribute to the incidence rate of UTI among the female students in Babcock University. It was recommended among others that health seminars and workshops should be organized routinely to combat the incidence of UTI.

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Introduction

Urinary Tract Infection (UTIs) is an infection caused by the presence and growth of microorganisms anywhere in the urinary tract (Okonko, et al, 2018). It is perhaps the single most common bacterial infection of mankind (Okonko, et al., 2018, Ebie, et al, 2008). The urinary tract includes the organs that collect and store urine and releases it from the body which includes: the kidneys, ureters, bladder and urethra. (UTIs) are among the most common bacterial infections in humans, both in schools, communities and hospital settings and reports have shown that it occurs in all age groups in both sexes (Okonko, et al., 2018, Hooton et al., 2016). UTIs are the leading cause of Gram-negative bacteremia and also the leading cause of morbidity and health care expenditures in persons of all ages (Okonko, et al., 2018; Kunin, 2013).

Reports have also shown that UTI can occur in both males and females of any age. UTI is common with patients with symptoms of acute urethral syndrome, males with chronic prostatitis and patients with indwelling catheters (Okonko, et al., 2008; Karen, et al, 2001). Females are however believed to be affected more than males except at the extremes of life (Okonko, et al., 2018, Ebie et al., 2008; Kolawole, et al, 2009). Females tend to have UTIs more often than men because bacteria can reach the bladder more easily in women. This is because the female urethra is shorter and wider, and the urethra's proximity to the anus. Bacteria from the rectum can easily travel up the urethra and cause infections (Ebie et al., 2008; Kolawole et al., 2009; Okonko, et al., 2018).

UTI is usually caused by bacteria that can also live in the digestive tract, in the vagina, or around the urethra, which is the entrance of the urinary tract. The most common bacteria that cause UTIs are the *Escherichia coli* (E. coli) but other organisms such as *Proteus sp.*, *Klebsiella sp.*, *Staphylococcus sp.*, and *Pseudomonas sp.* also cause UTIs. Most often these bacteria's enter the urethra and travel to the bladder and kidneys. Usually, the body removes the bacteria, and shows no symptoms. The signs and symptoms include; burning feeling sensation on urination, frequent or intense urges to urinate, even when one have little urine to pass, lower flank pain and lower abdominal pains, cloudy and unusual smelling urine, dark and bloody urine, fever or chills (Okonko et al., 2018; Ojiegbe & Nworie, 2017).

UTI proves to be an infection that can bring about future reproductive problems to females if left untreated and continues to reoccur. It can be discomforting and painful to persons with the infection. Also it places a financial and economic burden on persons with the condition. Students who are pregnant, immunosuppressed, diabetic and students who have underlying urologic abnormalities are at an increased risk of UTI. The study therefore examined the incidence of urinary tract infections among female students of Babcock University, Ilishan-Remo, Ogun State. This study specifically:

1. determined the level of knowledge on UTI among female students in Babcock University;
2. investigated the incidence of UTI among female students in Babcock University;
3. examined the predisposing factors of acquiring UTI among female students in Babcock University; and
4. determined the estimated risk factors of developing UTI among female students in Babcock University.

Research Questions

The following research questions were raised for this study:

1. What is the level of knowledge on UTI among female students in Babcock University?
2. What is the incidence of UTI among female students in Babcock University?

3. What are the predisposing factors of acquiring UTI among female students in Babcock University?
4. What are the estimated risk factors of developing UTI among female students in Babcock University?

Methodology

A descriptive, quantitative research design was adopted for this study. This study was conducted in Babcock University, Ilishan-Remo, Ogun state, Nigeria. The target population for this study was the female undergraduate students residing in Nyberg Hall, Babcock University, Ilishan-Remo, Ogun state. The total number of female students residing in Nyberg hall was 240. A purposive and convenient sample method was used to select study sample from the female students in Nyberg Hall. The sample size of 150 was determined by applying the Taro Yamane's formula.

The instrument for this research was a structured questionnaire consisting of five sections. Section A contains demographic data of the participants; section B elicits information on the level of knowledge on UTI among female students; section C elicits information on the incidence of UTI among female students; section D elicits information on the Predisposing factors of acquiring UTI among female students; section E elicits information on the Risk factors of developing UTI among female students. The instrument was validated by experts of Nursing science and Tests and Measurement. The filled questionnaires were collected and analysed using descriptive statistics.

Results

Research Question 1: What is the level of knowledge on UTI among female students in Babcock University?

Table 1: Level of knowledge on UTI among female students

Level	Frequency	Percent
Low	20	13.7
Moderate	28	19.2
High	98	67.1
Total	146	100.0

Table 1 summarises the level of knowledge on UTI among female students in Babcock University. From the table, 20 respondents representing 13.7 percent had low level of knowledge on UTI, 28 respondents representing 19.2 percent had moderate level of knowledge on UTI while 98 respondents representing 67.1 percent had high level of knowledge on UTI. It could be concluded that most of the female students had moderate level of knowledge on UTI.

Research Question 2: What is the incidence of UTI among female students in Babcock University?

Table 2: Frequency and Percentages showing the Incidence of UTI among participants

S/N	Q u e s t i o n s	Response	F	Percentage (%)
1 .	Have you ever felt a burning sensation while passing urine?	Y e s	5 2	35.6
		N o	9 4	64.4
2 .	How often has this occurred in the past 6 months?	O n c e	6 6	45.2

	Twice	28	19.2
	Three times	9	6.2
	Others	43	29.5

Table 2 shows that 52 (35.6%) of the participants have felt a burning sensation while passing urine; 66 (45.2%) have experienced it once in the past 6 months and 43 (29.5%) have experienced it more than three times in the past 6 months.

Research Question 3: What are the predisposing factors of acquiring UTI among female students in Babcock University?

Table 3: Frequency and Percentages showing the predisposing factors of acquiring UTI among participants

S/N	Items	Yes (%)	No (%)
1.	Age is a predisposing factor of acquiring UTI	78 (53.4)	68 (46.6)
2.	Women are more predisposed to UTI	130 (89.0)	16 (11.0)
3.	Dirty toilets predisposes female to UTI	131 (89.7)	15 (10.3)
4.	Being sexually active predisposes female to UTI	99 (67.8)	47 (32.2)
5.	The use of contraceptives promote the occurrence of UTI	86 (58.9)	60 (41.1)

Table 3 shows that 130 (89.0) of the respondents indicated that women are predisposed to UTI, 131 (89.7%) indicated that dirty toilets predisposes a female to UTI and 99 (67.8%) indicated that being sexually active predisposes a female to UTI.

Research Question 4: What are the estimated risk factors of developing UTI among female students in Babcock University?

Table 4: Frequency and Percentages showing the risk factors of acquiring UTI among participants

S/N	Items	Yes (%)	No (%)
1.	Pregnancy is a risk factor of UTI	68 (46.6)	78 (53.4)
2.	Low immunity is a risk factor of UTI	126 (86.3)	20 (13.7)
3.	Multiple sexual partners is a risk factor of UTI	130 (89.0)	16 (11.0)
4.	Poor hygiene is a risk factor of UTI	141 (96.6)	5 (3.4)
5.	Stagnation of urine in the bladder is a risk factor of UTI	116 (79.5)	30 (20.5)

Table 4 shows that 141 (96.6%) of the respondents attributed Poor hygiene as a risk factor of UTI. 130 (89.0%) indicated that multiple sexual partners is a risk factor of UTI, 126 (86.3%) indicated low immunity as risk factor of developing UTI and 116 (79.5%) indicated stagnation of urine in the bladder as a risk factor of developing UTI.

Discussion

The findings of the study reported that 98(67.1%) of the total 146 respondents know about UTI. Result follows this trend because the target population was students and UTI is a regular health teaching among students in the university. This finding is in contrary to a study by Ojo and Anibijuwon (2010) who in his study on Urinary tract infection among female students residing in the campus of Ado-Ekiti noted the low level of knowledge of 31.3% on

UTI. It is therefore accepted that the level of knowledge on UTI among female students of Babcock University is high.

The study also revealed that 52 (35.6%) of the participants have felt a burning sensation while passing urine; 66 (45.2%) have experienced it once in the past 6 months and 43 (29.5%) have experienced it more than three times in the past 6 months. This study shows a lower incidence of 35.6% to a symptomatic UTI of feeling a burning sensation while passing urine unlike a study carried out by Ojo and Anibijuwon (2010) where the female students had a higher incidence rate of 63%. And also by a study conducted by Okonko et al., (2018) where the incidence rate was 47.5%. It is therefore accepted that the incidence of UTI among female students in Babcock University is Low.

The findings from the result shows that 130 (89.0%) of the respondents indicated that women are predisposed to UTI, 131 (89.7%) indicated that dirty toilets predisposes a female to UTI and 99 (67.8%) indicated that being sexually active predisposes a female to UTI. According to a study by Ebie et al., (2008), women are more predisposed to UTI because bacteria can reach the bladder more easily in women and cause infections due to the shortness and wideness of the female urethra and also as a result of the Urethra's proximity to the Anus. In this same study, he explained that there is a possible link between the incidence of UTI and the state of the toilet facilities in the hostels. When the toilets are dirty, there is accumulation of urine sediments forming a thick scum and thus, female students can get infected during urination. This study is also in agreement with a study by Asinobi et al (2013) which said that the sexually active female students are more predisposed to UTI because this behavior exposes the female students having contacts with pathogens from their partners.

The findings of the study shows that 141 (96.6%) of the respondents attributed Poor hygiene as a risk factor of UTI. 130 (89.0%) indicated that multiple sexual partners is a risk factor of UTI, 126 (86.3%) indicated low immunity as risk factor of developing UTI and 116 (79.5%) indicated stagnation of urine in the bladder as a risk factor of developing UTI. This study is similar to a study by Kolawole et al., (2009) who indicated that lack of proper personal hygiene and environmental hygiene can be a risk factor of developing a UTI. A case control multivariate analysis by Okonko et al., (2018) supports this study that having multiple sexual partners is a risk factor of developing UTI.

Conclusion

Urinary tract infection is one of the most common bacterial infections in humans. Its symptoms can range from burning feeling sensation on urination, frequent or intense urges to urinate, cloudy and unusual smelling urine, dark and bloody urine, lower flank pain and lower abdominal pains. Findings from this study show that females are predisposed to acquiring UTI. Dirty toilets and poor personal hygiene contribute to the incidence rate of UTI among the female students in Babcock University. In conclusion, female students should learn to observe good personal and environmental hygiene in order to reduce their risk of acquiring UTI and also when symptoms of UTI have been identified, immediate medical care should be sort to prevent complications from arising.

Recommendations

Based on the findings of this study, the following recommendations were suggested;

1. Health education and health teaching should be organized for the students. This assists in depicting the importance good personal hygiene.
2. Health seminars and workshops should be organized routinely to combat the incidence of UTI

3. Routine health screening and examination should be carried out to detect the presence of UTI in females who are both symptomatic and asymptomatic.
4. Routine hostel inspections and environmental sanitations to lower the risk of UTI.
5. Encourage sexually active females to stick to one partner which in turn reduces their risk of acquiring UTI.
6. Immediate medical care should be sort when symptoms have been identified to prevent complications of the condition from arising.

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