

Assessment of Knowledge and Perception of Urinary Tract Infection (UTI) amongst In-school Adolescent Girls in Rantya-Gyel Community of Plateau State, Nigeria.

ABSTRACT

INTRODUCTION

The World Health Organization has identified adolescence as the period in human growth and development that occurs between childhood and adulthood, that is, age group of 10 -19 years. This period represents one of the critical transitions in life span and is characterized by a tremendous pace in growth and change that is second only to that of infancy. Biological processes drive many aspects of this growth and development, with the onset of puberty marking the passage from childhood to adolescence. The biological determinants of adolescence are fairly universal; however, the duration and defining characteristics of this period may vary across time, cultures, and socioeconomic situations. This period has seen many changes over the past century namely the earlier onset of puberty, later age of marriage, urbanization, global communication, and changing sexual attitudes and behaviors. Therefore, good physical and mental health of children and adolescents makes for good health in adulthood. This is the earliest age to prevent morbidity in later life by means of any health intervention.

The urinary system is also known as the renal system. The tract consists of the *kidneys*- two bean-shaped organs that skim waste products and excess water from the blood to create *urine*, a pair of narrow tubes called the *ureters* that carry the urine to the baglike *bladder* for storage. From there it travels down another tube, the *urethra*, and leaves the body through the penis or the vulva. In the process, the urine washes away germs from the opening of the urinary system.

Urinary Tract Infection (UTI) is an infection in any part of the urinary system. It is caused by bacteria and is one of the most common bacterial infections amongst adolescents, and the prevalence of infection depends largely on age and gender. Females are more at risk of urinary tract infection mostly due to the proximity of the urethra to the rectum and also the shortness of their urethra (1.5inches compared to 8inches in males); therefore bacteria from fecal matter at the anal opening can easily be transferred to the opening of the urethra. Other female specific risk factors include: sexual behavior, sexual position (such as the woman is on top), certain types of contraceptives, pregnancy and menopause.

Infection of the urinary tract can either be described as lower: affecting the bladder (cystitis) and urethra (urethritis) or upper: affecting the kidneys and ureters.

The major culprit behind most urinary-tract infections (UTIs) is *Escherichia coli* (*E. coli*), a gram negative bacterium that resides in the intestinal tract. Though other gram negative bacteria such as *Klebsiella*, *Proteus*, *Enterobacter* and *Pseudomonas* species; and gram positive bacteria like *Staphylococcus* are also common causes of urinary tract infection among adolescent girls. Symptoms suggesting a urinary tract infection include

Pain or burning sensation when urinating, frequent urge to urinate, though only a small amount is passed, fever and chills, Pressure sensation, Pain in the lower abdomen, pelvis or lower back, nausea and vomiting, blood or pus in the urine, urinary incontinence. For early diagnosis and treatment of childhood UTIs, high level of knowledge about the disease and its warning signs are important among parents and caregivers. Risk factors of urinary tract infection in adolescents include: poor and incorrect urinary and toilet habits, poor hygiene, and sexual activities especially with multiple sexual partners.

Diagnosis of Urinary tract infection is by physical examination and thorough medical history, plus one or more of the following procedures:

- Urinalysis,
- Urine culture and sensitivity, to detect the causative organism and determine which antibiotic can be used to treat it.

Treatment for UTI is aimed chiefly at eradicating the bacteria from the urinary tract, thus allowing for improvement of symptoms. General orientation for the patient, such as that regarding the recurring characteristic of UTI; appropriate fluid intake; and correction of urination and intestinal habits is very important. Treatment is usually by antibiotic administration which is largely dependent on the incriminating organism, the severity of the infection and the type of infection.

OBJECTIVE

This study was designed to explore and provide insight on the knowledge and perception of urinary tract infection amongst in-school adolescent girls in community-based secondary schools to enable us develop strategies of bridging any knowledge gap(s) that may be observed.

METHOD

The study was performed in Rantya- Gyel, a semi-urban community in Jos South Local Government Area of Plateau State, Nigeria. The survey was performed using a structured questionnaire that required respondents to anonymously complete questions related to puberty, hygiene, knowledge and history of urinary tract infection and knowledge of Comprehensive Sexuality Education (CSE), locally called Family Life and HIV Education (FLHE). Participants were first educated on the research concept on gain. Their consent was sought; those that consented were given a questionnaire to fill. Six secondary schools comprising government and private secondary schools were visited, 180 respondents were administered questionnaires and Information was gathered through self-reporting. Study subjects were apprised about how to do the study, security of the information and the aim of the study. Respondents declared their willingness to participate in the study.

RESULT

Out of the 180 respondents, 87 (48.33%) had no knowledge of UTI, 32 (18%) had treated UTI, 91(51%) had symptoms suggestive of UTI while 158 (88%) exhibited risk

factors of UTI, 70 (39%) had knowledge of Comprehensive Sexuality Education (CSE) while only 2 (33.33%) of the participating schools were implementing CSE curriculum. To questions regarding hygiene, it was discovered that 114 (63.33%) of the respondent used water to wash their vulva after urinating, 44 (24.44%) used toilet paper to wipe (although a lot do not wipe correctly).22(12.22%) just put on their panties without washing or wiping after urination. Concerning menstruation, 159 (88.33%) of the respondents have had menarche and although 36 (22.64%) of them use toilet paper and pieces of cloth, 123 (77.35%) use sanitary pads as the absorbent material for their menstruation. On questions pertaining to risk factors, 28 (15.55%) of the respondents were sexually active though only 7 (25%) of them agreed to having more than one sexual partners. 162 (90%) of the respondents used water cistern toilets in their homes.

CONCLUSION

Based on results from the study, many of the respondents though unaware, were at high risk of UTI. Ignorance of symptoms and risk factors may lead to unidentified cases of UTI and likely go on without medical intervention thus degenerating into serious urinary and genital tract complications. Prolonged or untreated UTI cases may lead to kidney abscess, renal scarring which may also lead to hypertension and kidney failure; sepsis, increased risk of premature delivery or low birth weight in pregnancy. Hence there is a great need for health intervention especially comprehensive sexuality education in these schools and others in Plateau State. This is necessary to combat the

low level of knowledge and correct various misconceptions among adolescent school girls regarding urinary tract infection and other issues especially those pertaining to reproductive health. Programs targeted at providing available and appropriate information and clinical services on Family Life and HIV Education should be implemented. Effective health education interventions should be designed based on theories and models and not at the convenience of government authorities.