Prevalence of Most Common Reproductive Tract Infections among Women Attending Family Planning Clinics in Montazah-Alexandria

Thesis

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Amal Philip Salib

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List of Abbreviations

CDC	: Center for Disease Control
FHI	: Family health International
FP	: Family planning
HIV	: Human Immunodeficiency Virus
IEC	: Information, Education and Communication
IUD	: Intrauterine Contraceptive Device
MENA	: Middle East and North Africa
NACO	: National AIDS control Organization
PRB	: Population Reference Bureau
RTIs	: Reproductive Tract Infections
SPA	: Service Provision Assessment
SPSS	: Statistical Package of Social Science
STIs/Ds	: Sexual transmitted infections/Diseases
USID	: United States International Development
WHO	: World Health Organization

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Introduction

Reproductive tract infections (RTIs) are infections of the genital tract. Some are sexually transmitted but many are not. In women, overgrowth of endogenous microorganisms normally found in the vagina may cause RTIs. In addition medical interventions may provoke iatrogenic infection (**WHO, 2005).**

The global burden of reproductive tract infections (RTI's) is enormous and of a major public health concern, particularly in developing countries where RTIs are endemic. RTI's, excluding Human Immunodeficiency Virus constitute the second major cause of disease burden (after maternity related causes) in young adult women in developing countries (**Kabiru et al., 2010).**

Reproductive tract infections, is a global public health problem, mostly ignored by many women. Since a large proportion of women suffer morbidity silently, and are reluctant to seek care **(Sangeetha and Bendigeri, 2012a).**

Reproductive tract infections (RTIs) including sexually transmitted infections (STIs) present a huge burden of disease and adversely impacts the reproductive health of people (**National guidelines on prevention, management and control of RTIs, India 2007).**

Over 340 million curable, and many more incurable, sexually transmitted diseases occur each year. Among women,

non-sexually-transmitted -RTIs- are usually even more common (**WHO, 2005).**

Each year thousands of women die from the sequelae of undiagnosed or untreated RTIs, including cervical cancer, ectopic pregnancy, acute and chronic infections of the uterus and fallopian tubes, and puerperal infections. Other sequelae include infertility, low birth weight, infant blindness, neonatal pneumonia, and mental retardation **(CDC, 2003 a).**

Female RTI's usually originate in the lower genital tract as vaginitis or cervicitis and may produce symptoms such as abnormal vaginal discharge, genital pain, itching and burning feeling with urination. Even when symptoms occur, their presentation can overlap with and be diagnosed as a normal physiological change and normal physiological discharge may be misdiagnosed as RTI's **(Kabiru et al., 2010).**

Reproductive tract infections in many cases are asymptomatic among women, making their detection and diagnosis difficult. Despite such grave consequences, policy-makers and health planners in developing countries have not given much attention to these infections. In part, it is due to the misconceptions that RTIs are not fatal, are expensive to treat, and that they affect only a particular segment of population **(Durr, 2005).**

Three common infections are associated with vaginal discharge namely bacterial vaginosis, Trichomoniasis and

candidiasis, of which Trichomoniasis is a sexually transmitted infection (**European Guideline on the Management of Vaginal Discharge, 2011)**.

The organisms responsible for bacterial vaginosis, candidiasis, and Trichomoniasis commonly cause abnormal vaginal discharge, a considerable proportion of women with these infections also do not exhibit signs or symptoms. In addition, many women who do have symptoms will not seek care because they are embarrassed, do not recognize the symptoms as serious, or consider them a normal female born (**Nicole et al., 2002).**

The treatment and control of RTIs/STIs needs to be part of the primary health-care. Grass-root level health workers should be trained to identify RTIs/STIs. They need to educate women about reproductive health issues and encourage them to seek treatment for their problems and also encourage their partners to get treated at the same time. They should be able to affect behavior changes that are conducive to maintenance of reproductive health **(Preethi et al., 2012)**.

In Egypt, in a house-to-house survey using cluster sampling of 1344 married women from urban and rural areas of Upper Egypt the overall prevalence was found to be 52. 8%, with the most prevalent forms being Candida albicans (28.0%), Trichomonas vaginalis (8.7%), Aspergillus species (7.4%), streptococci (4.6%) and Chlamydia trachomatis (4.2%) **(Sallam et al., 2001).**

In a rural Egyptian community, a medical examination was conducted on a sample of 509 ever-married, non-pregnant women. For gynecological morbidities, genital prolapse was diagnosed in 56 percent, reproductive tract infections in 52 percent, and abnormal cervical cell changes in 11 percent of the women (**Younis et al., 1993).**

There is a need for an improved use of mass media, advocacy, and public awareness campaigns emphasizing prevention of RTIs, alerting women of the risk factors and the medical meanings and consequences of various bodily signs and symptoms, and it should be done in a clear and focused manner (**DURR, 2005)**.

Objectives

Overall Goal:

Control the reproductive tract infections among married women in Egypt.

Specific objectives:

1. To measure the prevalence of Candida albicans, Trichomonas vaginalis and Bacterial vaginosis among married women attending family planning clinics in El-montazah district-Alexandria and to identify the most prevalent microorganism.

2. To identify some factors associated with Candida albicans, Trichomonas vaginalis and Bacterial vaginosis among married women attending family planning clinics in Al-Montazah district-Alexandria.

Chapter 1
Reproductive tract infections

1. Definition
2. Classifications of RTIs
3. Presenting symptoms and signs
4. Factor affecting RTIs
5. Impact of Reproductive tract infections
6. Prevention of reproductive tract infections
7. Treatment seeking sites during the previous attack of RTIs

1–1 Definition:

Reproductive tract infections (RTIs) are infections of the genital tract. They are caused by organisms normally present in the reproductive tract, or introduced from the outside during sexual contact or medical procedures. These different but overlapping categories of RTI are called endogenous, sexually transmitted infections (STIs) and iatrogenic, reflecting how they are acquired and spread **(WHO, 2005; population council 2013 A; CDC, 2003B; Kabiru et al., 2010**)

The term RTI refers to any infection of the reproductive tract. In women, this includes infections of the outer genitals, vagina, cervix, uterus, tubes, or ovaries (**Pathfinder, 2000)**

1. 2 Classifications of RTIs:

STI/RTI can be classified in several ways. They can be classified based on the actual infectious agent or the type of agent causing the STI/RTI and mode of transmission (**NACO, 2012).**

STI/RTI can be classified according to mode of transmission into:

Endogenous Infections are probably the most common RTIs worldwide. They result from an overgrowth of organisms normally present in the vagina (Bacterial vaginosis and candidiasis). These can easily be treated and cured.

Iatrogenic Infections occur when the cause of infection, i.e., a bacterium or other micro-organism, is introduced into the reproductive tract through a medical procedure such as, the insertion of an IUD or during child birth if infection control is poor, or if an infection that was already present in the lower reproductive tract is pushed through the cervix into the upper reproductive tract.

Sexually Transmitted Infections are caused by viruses, bacteria, or parasitic micro-organisms that are transmitted through sexual activity with an infected partner (**WHO, 2005; population council 2013 A; National RTIs Policy Guidelines of Ghana, 2004**)

Table (1): Type of RTIs according to mode of transmission

Classification of STI/RTI based on mode of transmission

	Where do they come from	How they spread	Common examples
Endogenous infections	Normally found in small numbers in vagina	Overgrowth can lead to symptoms	Yeast infection, Bacterial vaginosis
Sexually transmitted infections (STI)	Sex Partners	Sexual contact	Gonorrhoea, Chlamydia. Syphilis Chancroid, Trichomoniasis, Genital herpes, Genital warts, HIV
Iatrogenic infections	Inside or outside the body: • Endogenous (vagina) • STI (cervix or vagina) • Outside contamination	Infection may be pushed through the cervix into the upper genital tract and cause serious infections of the uterus, fallopian tubes and other pelvic organs. Contaminated needles or other instruments may also transmit infection if infection control is poor.	Pelvic inflammatory disease (PID) following abortion or other transcervical procedures. Also, many infectious complications of pregnancy and postpartum period. Transmission from patient to patient (or healthcare provider) of HIV, HBV, syphilis or other infection.

Adopted from "Integrating STI/RTI care for reproductive health, sexually transmitted and other reproductive tract infections: A guide to Essential practice-2005 WHO"

(NACO, 2012)