

Health Problems in Female Reproductive Organs

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ABSTRACT

Women's reproductive health is an important aspect of general health that involves a complex organ system and is vulnerable to various disorders. This study applies the literature analysis method with the intention of reviewing literature related to health issues in women's reproductive organs. Material searches were conducted through scientific platforms such as PubMed, Google Scholar, and ScienceDirect. The purpose of writing this article is to examine health issues related to female reproductive organs. By providing comprehensive information on the impact and prevention of these health problems, it is hoped that public awareness of the importance of reproductive health services will increase. Health problems in the female reproductive system can have a significant impact on quality of life and fertility. If not treated properly, these health problems not only impact physical health, but also impact a woman's mental and emotional health, causing stress related to fertility and overall health. Prevention of sexually transmitted infections (STIs) in women can be done through several effective strategies, including consistent condom use, vaccination against viruses such as Human Papillomavirus (HPV) and Hepatitis B can reduce the risk of infection, comprehensive sexual education, and open communication with partners regarding sexual health history. Women's reproductive health is a vital aspect that affects physical, mental, and social well-being. These issues can be prevented to help maintain reproductive health and improve women's overall quality of life.

I. Introduction

Women's reproductive health is an important aspect of general health that involves a complex system of organs and is susceptible to various disorders. These disorders can lead to serious problems such as infertility, miscarriage and cancer, so an understanding of risk factors and prevention is essential. The female reproductive system functions to produce eggs and be the site of fertilization, and produces hormones that affect physical and mental health. According to (Indrayana, T., & Skep, N.2024) The part of the body that allows women to have sexual intercourse, reproduce, and experience the menstrual cycle is the female reproductive system. The main function of the female reproductive system is to produce eggs (ovum) and become a place for fertilization.

Reproductive health does not only mean freedom from disease, but also includes physical, mental, and social well-being. In Indonesia, major problems in adolescent reproductive health include the lack of adequate health information and services, which results in low knowledge about reproductive health. Surveys show that many adolescents do not have sufficient understanding of physical changes and reproductive health. (Dewi Arwini Bugis & Sakina Makatita, 2023)

The results of the 2017 Indonesian Adolescent Health Demographic Survey (IDHS) show that out of 55,555 adolescents aged 15-19 years, 76% are aware of physical changes



such as voice changes, and 87.7% know about menstruation. Only 21% of girls and 19.9% of boys knew the ideal age for marriage. Regarding tobacco and drug use, 2.4% of females and 70% of males who completed primary school had smoked, with 26.6% of female and 15.5% of male adolescents starting to smoke before the age of 14. Regarding HIV/AIDS information, 89.9% of adolescent girls and 83.9% of adolescent boys had heard of the information. The average age of first sexual intercourse was 17 years old. In romantic behaviors, 75% of males and 64% of females admitted to holding hands, while hugging and kissing were also reported by most adolescents. From this data, it can be concluded that many adolescents still lack understanding of reproductive health, so counseling is needed to improve their knowledge. Reproductive health problems among adolescents are often caused by a lack of information and education, which is crucial for their future well-being. (Indonesian Ministry of Health, 2017).

Based on the analysis of several reproductive health journals, many reproductive health problems are still caused by a lack of knowledge, information, and education. Therefore, considering the importance of reproductive health knowledge for adolescents and future mothers for welfare.

The purpose of writing this article is to review health problems related to female reproductive organs. By providing comprehensive information on the impact and prevention of these health problems, it is expected that public awareness of the importance of reproductive health services will increase.

II. Methods

This study applies the literature analysis method with the intention of reviewing literature related to health issues in women's reproductive organs. Materials were searched through scientific platforms such as PubMed, Google Scholar, and ScienceDirect. The inclusion criteria for this study included articles published in English or Indonesian, that adopted either a quantitative or qualitative research design, and that targeted the female population. Articles that did not meet the inclusion requirements, such as personal reviews or opinions, and articles that were not relevant to the research theme, were excluded.

III. Results and Discussion

Results

Health problems in the female reproductive organs include diseases such as, sexually transmitted infections (STIs) pose a serious threat to women's reproductive health, which can potentially cause more severe complications if not treated properly. Figure 1 below will provide a clearer picture of health problems in female reproductive organs.

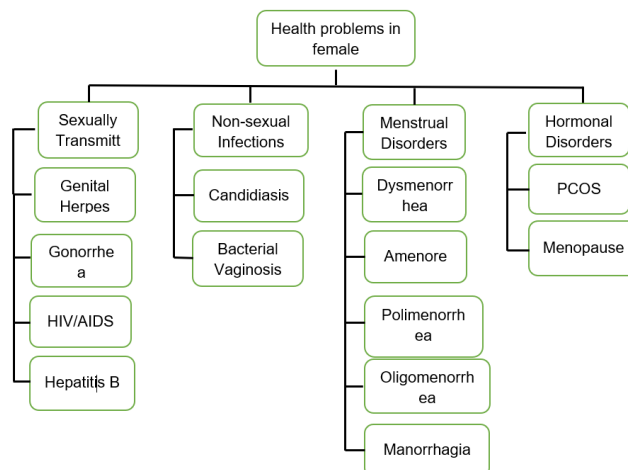


Figure 1: Health problems in female reproductive organs

Discussion

1. Reproductive tract infections

Sexually transmitted infections (STIs) are diseases that can be spread through sexual activity. People who have vaginal, oral or anal intercourse with multiple partners are more susceptible to STIs¹. STIs are a significant public health problem globally with an estimated one million new infections each year, most of which are asymptomatic. The increase in STI cases is one of the major factors leading to poor health outcomes in countries and globally. STIs can cause infertility, pregnancy complications, growth disorders, cancer and increased risk of HIV infection (Erika, 2024).

a) Genital Herpes

Genital herpes is caused by the herpes simplex virus (HSV), which consists of type 1 (HSV-1) and type 2 (HSV-2). The main transmission of HSV-2 infection occurs through sexual contact with an infected partner. Herpes genitalis is a common sexually transmitted disease and is the leading cause of genital ulcers. Incidence reports of herpes genitalis are not done annually, but the disease is most prevalent in 25-34 year olds, especially among those who are married. Local symptoms of genital herpes include pain, itching, dysuria, vaginal and urethral discharge, and pain in the inguinal glands. A clinical diagnosis can be made if clusters of vesicles are found that are similar in size, time of appearance, and nature, along with pain. Laboratory tests that can aid diagnosis include Tzank smear, virus isolation, HSV DNA detection by PCR, and elevated serum anti-HSV antibody titers, which are useful in the first episode of infection. Treatment of genital herpes is generally divided into three categories: therapy for the first episode, therapy for recurrence, and recurrence prevention therapy. The prognosis of genital herpes is better if treatment is done early, resulting in shorter disease duration and reduced recurrence frequency.

b) Gonorrhea

Gonorrhea is a major cause of sexually transmitted infections caused by the bacterium *Neisseria gonorrhoeae*, which infects the mucosa in the urogenital tract, rectum, pharynx and conjunctiva. Transmission of gonorrhea occurs through direct sexual contact, with 50% transmission from penis to vagina, and 63% from urethra to pharynx during oral sex, and 84% through anal sex (Hui et al., 2015). Symptoms in men are usually gonococcal urethritis, characterized by urination with pus. Infections in the anal area, pharynx and cervix are often asymptomatic, especially in women. If left untreated, gonorrhea infection of the cervix can progress to pelvic inflammation (PID), ectopic pregnancy and fertility problems. During pregnancy, this infection can lead to complications such as chorioamnionitis, premature rupture of membranes (PROM), premature birth, low birth weight, and spontaneous abortion (Lin et al., 2013; Heumann et al., 2017). Infants born to mothers infected with cervical gonorrhea may develop infection and develop severe conjunctivitis neonatorum, even risking vision loss. In addition, gonorrhea can also increase the risk of HIV transmission (Pathela et al., 2013; Bernstein et al., 2010).

c) HIV/AIDS

While Human Immunodeficiency Virus (HIV) is an infection that attacks the immune system, especially white blood cells called CD4 cells (World Health Organization, 2023b). Acquired Immunodeficiency Syndrome (AIDS) is a set of symptoms that appear as a result of the immune decline caused by HIV (WHO, 2023b). These include vaginal intercourse (penis entering the vagina), oral sex (penis entering the mouth or mouth touching female genitals), blood transfusions containing STI germs, shared needles (for drugs, tattoos), and mother-to-fetus transmission (contracted during pregnancy, labor, or breastfeeding). The risk of HIV transmission from mother to child is also quite high, which is 20 to 50 percent with the proportion of pregnancy 5 to 10%, childbirth 10 to 20%, and breastfeeding 5 to 20%.

HIV/AIDS is a threat to public health because in addition to causing death, sufferers can experience a decrease in the quality of life due to the symptoms and complications they experience, especially for vulnerable groups such as pregnant and lactating women. Pregnancy and childbirth can also cause HIV (WHO, 2023).

d) Hepatitis B

Worldwide, hepatitis B remains a public health problem with high morbidity and mortality rates. The World Health Organization (WHO) states that in 2019, approximately 296 million people worldwide were living with hepatitis B infection. Most of the burden of chronic hepatitis B is borne by Asia and sub-Saharan Africa, where most countries have HBV prevalence of more than 8% (WHO, 2021). Although blood is invisible, hepatitis B virus with a concentration of 102-3 virions/mL can be found on environmental surfaces and remains infectious for up to 7 days at room temperature. Organization for Disease Control and Prevention (Yizengaw et. al, 2018).

Hepatitis B immunization can prevent hepatitis B if given as early as possible after birth. The goal of the vaccination program is to prevent the transmission of certain vaccine-preventable diseases (VPD3I), including hepatitis B. Safe and effective vaccinations can now prevent hepatitis B (Ministry of Health, 2013).

2. Non-sexual Infections

a) Candidiasis

Infections caused by *Candida* sp. fungi in the vagina and vulva are known as candidiasis vulvovaginalis (KVV). About ninety percent of all cases are caused by *C. albicans*, which is part of the normal microbiota in the human body, while the remaining ten percent are caused by *C. glabrata*, *C. krusei*, *C. tropicalis*, and *C. parapsilosis*. Bacterial vaginosis is the second most common cause of vaginal infections after KVV. Having a history of active sex and multiple sexual partners are factors that increase the risk of KVV. *C. albicans* is generally asymptomatic, but the most common symptoms are itching in the vaginal area, pain, redness, and vaginal discharge similar to cheese, which can cause dysuria or dyspareunia (Mareta et al, 2024). Antifungal drugs, such as fluconazole, can be used in the form of oral medications or as creams or suppositories to cure vulvovaginal candidiasis. One effective treatment method for KVV is the use of this drug once a day for seven days, especially if the infection is caused by drug-sensitive *Candida* strains. For long-standing cases of KVV, longer initial treatment may be required, such as fluconazole treatment for several weeks or continuous topical therapy; treatment should always be tailored to the patient's condition and reaction. (Pradestine, S., & Mawardi, P, 2024).

b) Bacterial Vaginosis

Two types of infections in the female reproductive tract are bacterial vaginosis and vulvovaginal candidiasis. KVV has different causes and features, but often occurs together, known as co-infection. This situation becomes more complicated and long-lasting, aggravating symptoms and hindering the effectiveness of treatment. This creates special challenges in the management of co-occurring or overlapping BV and VVC. An increase in the number of anaerobic bacteria and a decrease in lactobacilli indicates bacterial vaginosis, which is a disorder of the vaginal microbiota. Symptoms of BV include excessive discharge with an unpleasant odor and itching in the genital area.

To treat VB, antibiotics such as metronidazole or clindamycin as well as topical treatments may be used. The aim of this treatment is to restore the balance of bacterial flora in the vagina. In addition, lifestyle changes, such as avoiding the use of soap or douching that can disrupt the natural balance of the vagina, can also be helpful in preventing recurrence of BV. (Pradestine, S., & Mawardi, P, 2024).

3. Menstrual Disorders

a) Dysmenorrhea (menstrual pain)

Dysmenorrhea is a condition characterized by severe pain during menstruation. Dysmenorrhea comes from the Greek dysmenorrhea, from the word *âdysâ* which means difficult, painful or not, natural, *âmenoâ* which means month and from *ârrehaâ* which flows. Symptoms of dysmenorrhea can occur differently in each woman, symptoms associated with dysmenorrhea are often characterized by symptoms such as abdominal cramps, dull pain or discomfort in the abdomen, back pain, headache, pain throughout the body, nausea, strengthening the digestive system. movement, pain in the thighs, constipation and loss of appetite. (Ilham et al., 2022).

b) Amenore

Amenorrhea is a condition in which menstruation stops. Amenorrhea can be divided into two categories, namely primary amenorrhea and secondary amenorrhea, primary amenorrhea occurs in girls who do not experience menstruation before the age of 16 and in girls who have no signs of development of secondary sexual characteristics. Secondary amenorrhea is a condition that occurs when an initially regular menstrual cycle suddenly stops for at least 3 months. (Ambarita & Butarbutar, 2022)

c) Polimenorrhea (too frequent menstrual cycles)

Polymenorrhea is a condition where the menstrual cycle is spaced less than 21 days Polymenorrhea may be caused by endocrine disorders that cause ovulation and luteal phase disorders. Shortened follicular volume leads to shorter menstrual cycles. (Loa et al., 2022)

d) Oligomenorrhea

Oligomenorrhea is a condition in which the menstrual cycle lasts more than 35 days, often associated with polycystic ovary syndrome due to increased androgen hormones that interfere with ovulation. In adolescents, oligomenorrhea may occur due to immaturity of the hypothalamic-pituitary-ovarian-endometrial axis. Other causes of hypomenorrhea include physical and emotional stress, chronic diseases, and nutritional disorders. Further evaluation is needed to find the cause of oligomenorrhea, especially if accompanied by obesity and infertility, as this condition may be associated with metabolic syndrome (Sarwono Prawirohardjo, 2011).

e) Monorrhagia (excessive menstrual bleeding)

Menorrhagia is a condition of prolonged menstrual bleeding with a frequency of >7 days with a volume of menstrual blood >80 cc. (Siahaan & Tannus, 2021)

4. Hormonal Disorders

a) Polycystic Ovarian Syndrome (PCOS)

Polycystic ovary syndrome, or SOPK, is a hormonal condition that can cause a variety of signs in women, especially teenagers (Muharam, 2020). Common symptoms include menstrual disorders, such as amenorrhea (no period), oligomenorrhea (irregular menstrual cycle), and hirsutism (excessive hair growth in unwanted areas) (Hestiantoro, 2016). In addition, women with SOPK often experience skin problems such as acne and oily skin, as well as weight gain or difficulty in losing weight. These symptoms can vary from individual to individual, and can often affect quality of life and mental health.

Complications from SOPK may include a higher risk of developing type 2 diabetes, hypertension and heart disease. Women with SOPK also have a higher risk of infertility due to ovulation disorders. Treatment for SOPK usually involves a multidisciplinary approach, including lifestyle changes such as a healthy diet and regular exercise to manage weight. In addition, hormonal therapies such as contraceptive pills may be used to regulate the menstrual cycle and reduce symptoms of hirsutism. In some cases, medications such as metformin may also be prescribed to improve insulin sensitivity and help address metabolic issues associated with SOPK.

b) Menopause

Menopause is a stage in a woman's life characterized by a decrease in the production of sex hormones, especially estrogen and progesterone, which can trigger various physical and psychological symptoms. According to Widyantari et al. (2019), common symptoms experienced during menopause include insomnia, hot flashes, night sweats, dizziness, headaches, joint pain, and emotional changes that can cause anxiety. These hormonal changes not only impact physical health, but can also trigger mental disorders such as anxiety and depression.

Therefore, proper management is essential to help women deal with this phase. Wahyuni & Ruswanti (2018) state that a good understanding of menopause can contribute positively to the management of psychological conditions, thereby reducing sleep disturbances and emotional problems. Health education and counseling from health workers, such as maternity nurses, are also indispensable to provide accurate information and support women in dealing with changes during menopause (Susilawati & Anggrowati, 2021).

The impact of sexually transmitted infections (STIs) can cause infertility, pregnancy complications, growth disorders, cancer and increased risk of HIV infection (Erika, 2024).

- 1) Genital Herpes can have effects including pain, itching, dysuria, vaginal and urethral discharge, and pain in the inguinal glands.
- 2) Gonorrhea can have a significant impact on women, including increasing the risk of reproductive tract infections that can lead to pelvic inflammatory disease (PID). This condition can potentially lead to chronic pain, infertility, and complications during pregnancy. In addition, women infected with gonorrhea can also transmit this infection to their sexual partners, contributing to an overall increase in the epidemic of sexually transmitted infections (STIs). Research shows that screening rates for gonorrhea among women are still far below recommendations, so many infections remain undetected and untreated, which increases the risk of further health complications. Therefore, it is important to improve understanding of the impact of gonorrhea and strengthen screening efforts to protect women's reproductive health (Hamilton et al., 2023).
- 3) The impact of HIV on women, especially those who are pregnant, includes the risk of poor birth outcomes, such as low-weight babies, small head circumference, and possible microcephaly. Women infected with HIV and on antiretroviral therapy (ART) may develop complications that affect fetal growth, including head growth and femur length. Although ART is effective in reducing the risk of mother-to-child transmission of HIV, infants exposed to HIV and receiving ART are still at risk of long-term developmental disorders, such as metabolic and neurological health problems later in life (Mtintsilana et al., 2023).
- 4) Especially for women who are pregnant, Hepatitis B virus infection often leads to abortion, premature parturition, and intrauterine death, especially if there is dehydration or severe systemic complications. Preterm birth increases by 15 to 35% which is thought to be due to the severity of the disease, the effects of the virus on the fetus or placenta. Arief (2018).
- 5) Candidiasis, It is important to consider the impact of candidiasis infection on women's health, as this infection can cause a variety of problems, including itching that can lead to blisters, discomfort during sexual intercourse, and an increased risk of HIV infection. Prevention efforts through the delivery of accurate information to women is necessary, as many women still consider vaginal discharge as normal, when it could be a symptom of candidiasis vaginalis (Greenwood D, et al., 2017).
- 6) Bacterial vaginosis (BV) can cause serious problems, including contributing to premature birth, abortion and endometriosis. In addition, this condition can also

increase the risk of other sexually transmitted diseases, including HIV and cervical cancer (Hidayati, A. N. (2023).

Prevention of sexually transmitted infections (STIs) in women can be done through several effective strategies, including consistent condom use, which serves as a physical barrier to prevent pathogen transmission (CDC, 2021). In addition, vaccination against viruses such as Human Papillomavirus (HPV) and Hepatitis B can reduce the risk of infection (WHO, 2016). Comprehensive sexual education is also important to raise awareness about how STIs are transmitted and prevented, and to encourage regular health checks for early detection (Serrano et al., 2018). Open communication with partners regarding sexual health history and reducing the number of sexual partners also contribute to risk reduction (Liu et al., 2021). By combining these approaches, women can significantly reduce their chances of STI exposure and improve their overall sexual health.

IV. Conclusion

Women's reproductive health is a vital aspect that affects physical, mental and social well-being. Female reproductive health issues can significantly affect quality of life and fertility. If left untreated, these issues can impact physical, mental and emotional health, and create stress related to fertility and overall health. These issues can be prevented to help maintain the health of the female reproductive organs and improve a woman's overall quality of life.

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