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The Impact of Untreated Sexually Transmitted Diseases in Women

არანამკურნალევი სქესობრივი გზით გადამდები დაავადებების გავლენა ქალებში

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Abstract

Introduction: Women who have untreated sexually transmitted infections face serious physical, psychological, and social repercussions, making them a serious public health concern. to examine the long-term physical, social, and economic effects of untreated STDs in women with an emphasis on their effects on reproductive health and general well-being. Methodology: A comprehensive literature review was conducted, analysing peer-reviewed studies on the effects of untreated sexually transmitted diseases in women. Results: Untreated sexually transmitted diseases cause substantial psychological discomfort in addition to serious reproductive health issues like infertility and pelvic inflammatory disease. Social stigma and cultural hurdles restrict women from obtaining timely care, especially in impoverished populations. Additionally, women's mental and physical health is affected by the convergence of sexually transmitted diseases with intimate partner violence and sexual trauma. Conclusion: A comprehensive strategy should include regular screening, more sex education, improved access to healthcare, less stigma, and integrated mental health aid to enhance the health and quality of life of impacted women.

Keywords: sexually transmitted infections, mental health, social stigma, public health **Quote:** Thomas A. The Impact of Untreated Sexually Transmitted Diseases in Women. Health Policy, Economics and Sociology, 2025; 9 (1). https://doi.org/10.52340/healthecosoc.2025.09.01.01

აბსტრაქტი

შესავალი: ქალებს, რომლებსაც აქვთ არანამკურნალევი სქესობრივი გზით გადამდები ინფექციები, შეიძლება სერიოზული ფიზიკური, ფსიქოლოგიური და სოციალური გამოწვევების წინაშე აღმოჩნდნენ, რაც მსგავს სიტუაციებს საზოგადოებრივი ჯანმრთელობის სერიოზულ პრობლემად აქცევს. კვლევის მიზანია ქალებში არანამკურნალევი სგგდ-ების გრძელვადიანი ფიზიკური, სოციალური და ეკონომიკური ეფექტების შესწავლა

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რეპროდუქციულ ჯანმრთელობასა და ზოგად კეთილდღეობაზე მათი ზემოქმედების აქცენტით. მეთოდოლოგია: ჩატარდა ლიტერატურის ყოვლისმომცველი მიმოხილვა, აანალიზებდა რეცენზირებული კვლევებს ქალებში არანამკურნალევი სქესობრივი გზით სქესოზრივი გადამდეზი დაავადებების ეფექტებზე. შედეგები: გზით გადამდეზი იწვევს მნიშვნელოვან ფსიქოლოგიურ დისკომფორტს არანამკურნალევი დაავადებები რეპროდუქციული ჯანმრთელობის სერიოზულ პრობლემებთან ერთად, როგორიცაა უნაყოფობა და მენჯის ღრუს ანთებითი დაავადება. სოციალური სტიგმა და კულტურული დაბრკოლებები ზღუდავს ქალებს დროული სამედიცინო მომსახურების მიღებაში, განსაკუთრებით მოსახლეობის ღარიბ ფენებში. გარდა ამისა, ქალის ფსიქიკურ და ფიზიკურ ჯანმრთელობაზე გავლენას ახდენს სქესობრივი გზით გადამდები დაავადებების თანხვედრა პარტნიორის ძალადობასთან და სექსუალურ ტრავმასთან. **დასკვნა:** ყოვლისმომცველი სტრატეგია უნდა მოიცავდეს სქესოზრივი გზით გადამდები დაავადებების რეგულარულ სკრინინგს, მეტ სექსუალურ განათლებას, ჯანდაცვაზე ხელმისაწვდომობის გაუმჯობესებას, ძალისხმევებს სტიგმატიზაციის შესამცირებლად/აღმოსაფხვრელად და ფსიქიკური ჯანმრთელობის ინტეგრირებულ დახმარებას სქესობრივი გზით გადამდები დაავადებებით დაავადებული ქალების ჯანმრთელობისა და ცხოვრების ხარისხის გასაუმჯობესებლად.

საკვანძო სიტყვები: სქესობრივი გზით გადამდები ინფექციები, ფსიქიკური ჯანმრთელობა, სოციალური სტიგმა, საზოგადოებრივი ჯანმრთელობა.

ციტატა: თომას ა. არანამკურნალევი სქესობრივი გზით გადამდები დაავადებების გავლენა ქალებში. ჯანდაცვის პოლიტიკა, ეკონომიკა და სოციოლოგია, 2025; 9 (1). https://doi.org/10.52340/healthecosoc.2025.09.01.01.

Introduction

In women, untreated STDs can cause severe health, social, and economic consequences including fertility, ectopic pregnancy, chronic pelvic pain, HIV susceptibility, pregnancy complications, and increased healthcare costs. The research aims to analyze these consequences, find problems related to diagnosis, and introduce preventive solutions.

There are academic and practical applications related to untreated STDs in women. Academically it aims for public health research, informs medical guidelines, and influences healthcare practices. Practically it gives early detection, prevention, and accessible treatment to lower the health disparities and increase quality of life.

Earlier research on the effects of untreated sexually transmitted diseases in women showed some serious medical, psychological, and economic consequences. Research which is published in The Lancet Infectious Diseases 2008 review (Chakraborty et al., 2008) shows how untreated chlamydia and gonorrhea can cause pelvic inflammatory disease and infertility with up to 10% of women experiencing infertility after many episodes of PID. A study published in 2011 in the Lancet Oncology (Wang et al.,2011) explains the connection between untreated high-risk HPV infections and the development of cervical cancer. Later on, a study on Sexually Transmitted Diseases in 2013 (Smith et al., 2013) analyzed the increased risk of HIV transmission in women with untreated syphilis and other STDs, stating that such diseases make women more vulnerable to HIV.

Effects of untreated STDs in women also show some serious physiological, and financial issues based on some scientific research. Based on this research pelvic inflammatory disease which accounts for 10-15% of female infertility cases, can result from untreated STDs like chlamydia and gonnorrhea. About 99% of instances of cervical cancer are caused by persistent HPV infections, which are the main cause of the disease if left untreated. Additionally, because untreated STDs result in vaginal sores that aid in viral transmission, they raise the chance of contracting HIV. According to mental health research, women

who have untreated sexually transmitted diseases frequently suffer from increased anxiety, depression, and social stigma, all of which have a detrimental effect on their quality of life.

The objective of this research is to examine the long-term physical, social, and economic effects of untreated STDs in women with an emphasis on their effects on reproductive health and general well-being.

Methodology

A literature search was done through PubMed, Scopus, and Web of Science databases, and data were extracted according to inclusion criteria. The search strategy utilized a combination of Medical Subject Headings (MeSH) terms and relevant keywords, such as "sexually transmitted infections", "mental health", "social stigma", "public health". The search was limited to peer-reviewed articles and reviews published in English between January 2000 and April 2024 to ensure the inclusion of recent and relevant studies.

Literature review

Epidemiology of STDs in Women

Worldwide Incidence and Prevalence. Chlamydia: The most often reported bacterial sexually transmitted disease is chlamydia. Every year, there are over 130 million new cases worldwide. Most affected are women between the ages of 15 and 24; incidence rates range from 3 to 5% in several areas. Chlamydia can cause ectopic pregnancy, infertility, and pelvic inflammatory disease (PID) if left untreated.

Gonorrhea: An estimated 87 million new cases of gonorrhea occur worldwide each year. Young women are most vulnerable to chlamydia. With few alternatives for treatment in some places, antibiotic resistance in gonorrhea is becoming a bigger problem.

Syphilis: Syphilis is thought to affect 0.5–1% of women globally, with sub-Saharan Africa having the highest frequency. If left untreated, especially during pregnancy, it can result in consequences such as maternal and newborn death.

HIV: Of those living with HIV worldwide, 50% are women. In sub-Saharan Africa, where young women are three to five times more likely than males to contract HIV, the burden is greatest. Southeast Asia and portions of Latin America are among the other locations with significant HIV prevalence.

Differences by Region

- Sub-Saharan Africa: This region has the highest incidence of syphilis and HIV. HIV disproportionately affects women, particularly young women, because of gender-based violence, unprotected sex, and gender inequity
- In North America and Europe, sexually active women, particularly those aged 15 to 24, are most likely to contract chlamydia and gonorrhea. With yearly rates exceeding 1.8 million cases, chlamydia is the most commonly reported sexually transmitted disease in the United States. Although it is less common than in sub-Saharan Africa, HIV prevalence is nevertheless high in some groups.
- Asia and Latin America: High incidences of syphilis, gonorrhea, and HPV infection have been noted in Asia, particularly in China, India, and Thailand. The prevalence of gonorrhea and syphilis is rising across Latin America.

Women's STD Risk Factors

- Biological Vulnerability: Because of things like a bigger mucosal surface area in the genital tract, a more conducive vaginal environment for pathogen survival, and hormonal changes that may affect the immune response, women are more biologically vulnerable to sexually transmitted diseases.
- Age: Due to sexual debut, several sexual partners, and irregular condom use, women between the ages of 15 and 24 have the highest prevalence of sexually transmitted diseases.• Gender Inequality: In many areas, women encounter gender-based violence, encounter obstacles to safe sexual practices, and

have difficulty accessing healthcare, all of which make them more susceptible to sexually transmitted diseases, including HIV.

• Socioeconomic Factors: The higher prevalence of sexually transmitted diseases (STDs) in women, especially those with low incomes, is caused by poverty, restricted access to healthcare, lack of education, and cultural stigma around sexual health.

Biological and Health Impacts

The Two Main Causes of Infertility: Chlamydia and Gonorrhea

Untreated chlamydia and gonorrhea are the main causes of PID, which is a major cause of infertility. Both infections could go up the reproductive system from the cervix, where they can inflame and harm the ovaries, uterus, and fallopian tubes. When bacteria infect the endocervical canal, they cause acute inflammation and, if treatment is not received, can lead to chronic infection, adhesions, and scarring in the reproductive organs. This upward spread happens because of the infection. PID is a dangerous side effect that can result in ectopic pregnancy, persistent pelvic pain, and infertility. To stop the development of PID and its long-term effects, chlamydia and gonorrhea must be identified and treated as soon as possible.

Ten to fifteen percent of women with untreated PID may have irreversible infertility, Because pelvic inflammatory disease (PID) damages the reproductive organs, especially the fallopian tubes, it can result in irreversible infertility if left untreated. PID, which is frequently brought on by untreated gonorrhea or chlamydia, causes inflammation, adhesions, and scarring in the fallopian tubes, which can obstruct or affect their ability to function. This injury raises the chance of tubal factor infertility by interfering with the normal pathway for egg fertilization. In many situations, the loss of fertility is irreversible (Ravel et al.,2021)

Infertility with Syphilis

Although gonorrhea and chlamydia are more frequently linked to infertility than syphilis, if left untreated, syphilis can result in pregnancy difficulties such as miscarriage, stillbirth, or preterm birth. Newborns who are at risk for congenital syphilis may potentially experience serious problems.

Women who have untreated syphilis may experience infertility. Compared to other sexually transmitted diseases, syphilis is not as directly associated with infertility; nonetheless, if left untreated, it can result in consequences such as pelvic inflammatory disease (PID) and chronic inflammation of the reproductive organs. In rare instances, the infection may also result in premature birth, stillbirth, or miscarriage, which would indirectly impair fertility by harming the fallopian tubes or uterus. Furthermore, scarring from syphilis might make it more difficult for the sperm and egg to meet, which can make conception more difficult (Grant et al.,2020)

Human Papillomavirus (HPV) and the Health of Reproduction

Human papillomavirus is not only causing infertility but also some high-risk strains of the virus can be the reason for cervical cancer, which can cause infertility if surgically removing part of the uterus or cervix is necessary for treatment.

Continuous infection with high-risk HPV strains can lead to cervical abnormalities such as dysplasia or cervical cancer which can affect fertility and this is how HPV infection causes infertility indirectly. In some severe cases, cervical cancer treatment involves surgical procedures such as cervical colonization or hysterectomy and this can affect the cervix or uterus and reduce a woman's ability to conceive. Also, HPV-related genital warts and chronic inflammation can affect pregnancy and reproductive health (Okunade et al., 2020).

HIV and the Health of Reproduction

Untreated HIV can also cause problems related to infertility and pregnancy. But HIV isn't directly causing infertility. Risk of low birth weight, premature labor, and pelvic infections in women are some of the causes that can affect the reproductive health of women if HIV is untreated.

Fertility of women is directly or indirectly affected by HIV infection.HIV can result in problems such as menstruation abnormalities, ovarian dysfunction, and chronic inflammation which can affect reproductive health. Infection with STIs or HIV-related diseases like PID can also increase the risk of infertility. To manage HIV antiretroviral medication plays a crucial role, due to changes in hormone levels or because of side effects some women experience infertility. But also, many HIV-positive women can keep their fertility and have safe pregnancies with the help of appropriate ART.

Risk of transmission to infants during pregnancy or childbirth HIV and the Transmission of the Infancy

During pregnancy, HIV is a major concern because untreated HIV can be transmitted to the fetus. Untreated HIV during pregnancy also raises the risk of stillbirth, low birth weight, and preterm delivery. It may affect a baby's development and health.

Syphilis and the Results of Pregnancy

Congenital syphilis, which can cause stillbirth, miscarriage, early birth, or neonatal mortality, can arise from untreated syphilis during pregnancy. These risks are considerably decreased by early detection and penicillin treatment of syphilis during pregnancy. Untreated syphilis during pregnancy is associated with serious problems Serious repercussions for the mother and the unborn child may result from untreated syphilis during pregnancy. Low birth weight, preterm birth, stillbirth, and miscarriage are all possible outcomes of syphilis. Congenital syphilis, which can cause serious consequences such as neurological impairment, blindness, deafness, or even death in neonates, can also be caused by the infection spreading to the baby (Gulersen et al.,2023)

Gonorrhea and Chlamydia

Neonatal conjunctivitis (eye infections), pneumonia, and sepsis can arise from the transfer of chlamydia and gonorrhea after delivery if treatment is not received during pregnancy. While gonorrhea can result in premature rupture of membranes (PROM) and preterm labor, chlamydia is linked to preterm birth and low birth weight.

Neonatal problems can be avoided by treating pregnant women with antibiotics and screening them early for chlamydia and gonorrhea (Olaleye et al.,2023).

Pregnancy and Human Papillomavirus (HPV)

Although high-risk strains of HPV can cause cervical cancer in women, which may have an impact on reproductive health and pregnancy outcomes, HPV does not normally directly infect the newborn after childbirth. Genital warts and vaginal or cervical dysplasia can also result from HPV infection during pregnancy. Recurrent respiratory papillomatosis (RRP) is a rare but dangerous condition that can happen if a mother with HPV gives birth vaginally and the baby inhales HPV-infected cells, which causes growth in the infant's airways. Although extremely uncommon, it may result in respiratory issues for the youngster (Okunade et al.,2020)

How untreated STDs affect Mental Health

Depression and Anxiety

Because of the physical symptoms of the infections and the uncertainty surrounding long-term health repercussions, women with untreated sexually transmitted diseases (STDs) frequently experience stress, worry, and depression. This is especially true when disorders like infertility or pelvic inflammatory disease (PID) are involved. According to a 2017 study in Sexually Transmitted Diseases, women who had gonorrhea or chlamydia experienced greater psychological suffering than women who did not have these

conditions. Concerns regarding future health, infertility, and fear of transmission to partners lead to Anxiety. Depression and anxiety disorders are observed in the HIV positive women because of the nature of the disease, stigma, and worries about spreading the virus (Schonnesson et al.,2024)

Stigma

The stigma associated with STDs, including HIV, syphilis, and herpes causes social exclusion, self-blame, and low esteem in women. Those who are affected by HIV and HPV infections are mostly stigmatized and these people also suffer self-blame, discrimination, and social exclusion.HIV carries a high stigma because it relates to high-risk behaviors and causes more failure resulting in getting inappropriate help and treatment. Also, stigma associated with HPV shows worries about sexual activity and cancer risks which causes mental discomfort and avoidance of care. This stigma can also change public health initiatives by limiting candid conversations and testing and both these are linked to mental health issues like anxiety and depression. It should be focused to get care, prevention, and treatment including lowering the stigma. Stigma always results from public views of sexual behavior which causes feelings of shame. (Nilsson Schonnesson et al., 2024)

Connection to Domestic Abuse

Untreated sexually transmitted diseases are well connected with partner abuse. Often women complain that forced or nonconsensual sexual activity is the reason for their infection. Sexually transmitted diseases such as gonorrhea and HIV are causing domestic or sexual violence in women and most of them are facing challenges to seek treatment out of fear of reprisals or additional abuse.

Women's physical and mental health are seriously affected by Domestic partner violence which is mostly connected with sexually transmitted diseases. Many infections are left untreated in abusive relationships due to isolation, lack of access to healthcare, and fear of revenge. Untreated sexually transmitted diseases and continuous assaults can lead to psychological discomfort, chronic health issues, and Infertility. In both domestic violence and sexually transmitted diseases many women are disappointed from seeking assistance due to stigma which feeds the vicious cycle of suffering. Women facing sexual or physical violence are more likely to delay seeking medical care which is leading to untreated infections and worsening their mental health too.

There seems anxiety and post-traumatic stress disorder in women who faced sexual trauma and domestic violence frequently. From repeated abuse and forceful sexual interaction, arise hyperarousal intrusive memories and increased anxiety about one's safety and future relationships. Issues relating to controlling sexual emotions, withdrawing from social situations, and finding support theses are observed in women who suffer from anxiety and PTSD because they feel ashamed or afraid of getting hurt again. It changes their mental health, social function, and general well-being because of ongoing stress and psychological load from these experiences which shows the necessity of providing survivors with all traumas informed care and support (Oram et al.,2022)

Sexual Trauma and Its Impact on the Mind

Sexually transmitted diseases and more psychological effects are associated with women who have suffered from sexual trauma, especially rape or child sexual abuse. Due to this trauma, they develop chronic health conditions like depression, PTSD, and low self-esteem. Psychological disorders related to sexually transmitted diseases including fear of stigma and victimization are seen in women with a history of sexual abuse. A vicious cycle of psychological misery can be created in women with untreated sexually transmitted diseases, revictimization, and sexual trauma.n addition to having an impact on mental health, leading to PTSD, anxiety, and depression, this revictimization feeds the trauma cycle and makes it more challenging for women to escape the abusive environment and the infection. Due to feelings of shame, stigma, and loss of control over sexual health, these survivors felt it more difficult to seek therapy.

Due to the cumulative stress of earlier trauma, sexual trauma frequently results in difficulties navigating safe sexual practices, which increases the risk of untreated sexually transmitted diseases and has more severe psychological impacts (Goodrum et al., 2022)

Socioeconomic Impacts

The financial strain on families and women

Direct Medical Costs: Women who have untreated sexually transmitted diseases may incur high medical costs to treat problems such as cervical cancer, infertility, or pelvic inflammatory disease (PID). Untreated sexually transmitted diseases (STDs) like chlamydia and gonorrhea result in long-term medical expenses because of the requirement for antibiotic treatments and hospital stays for complications. Particularly in environments with limited resources, the expenses of medical care, hospital stays, and continuing treatment for chronic illnesses can be high. Women may also lose money if they miss work due to illness, or if they are unable to work because of chronic pain or infertility.

Stigma and Cultural Barriers

Cultural Stigma: Gender norms that link sexual health problems to moral failure cause women with STDs to be severely stigmatized in many societies. Women in traditional or patriarchal communities face social marginalization, humiliation, and fear of judgment, which keeps them from seeking medical attention for sexually transmitted diseases Obstacles to Healthcare AccessWomen in these environments frequently face cultural obstacles to healthcare, such as a lack of decision-making autonomy, prejudice from medical professionals, and anxiety over social consequences.

Untreated sexually transmitted diseases (STDs) can cause chronic illnesses like PID or cervical cancer that impair a woman's capacity to work, lowering her economic productivity and causing poverty. Because of the financial burden women need to take time off from work to get treatment, especially in homes where only one income or if women are the only people who are earning.

According to some health economic studies, these untreated sexually transmitted diseases can have long-term financial crises which lower the household income and savings and can increase the poverty cycle. As a result of medical expenses and missed productivity there are more financial issues developed in women who have untreated sexually transmitted diseases, especially in people who face issues of infertility or other long-term health issues. (Benz et al.2021)

Discussion

The main findings of this study show serious long-term health issues of untreated sexually transmitted diseases in women which include infertility, chronic illness like pelvic inflammatory diseases, and increased risk of cervical cancer because of recurrence of some infections like HPV. Untreated sexually transmitted diseases can cause serious complications to reproductive health resulting in women's ability to reproduce and leading to long-term physical health problems. Also, untreated STDs have serious psychological impacts. Stress, anxiety, and depression are associated with stigma-related sexually transmitted diseases. Feeling of shame, and fear of being judged, are some factors that keep them from getting appropriate treatment and ruin their mental health. It can also have a significant financial impact, which includes expenses of medical care, admission to the hospital, and lost of productivity. Also, long-term consequences of untreated sexually transmitted diseases can lead to financial crisis, and job insecurity especially in women who are not able to work because of infertility and chronic diseases. This financial crisis of untreated sexually transmitted diseases also impacts larger public health systems, increasing of cost of healthcare.

When it comes to infertility and continuous infections the study findings highlight the serious harm that sexually transmitted diseases cause to women's health. Infertility can result from pelvic inflammatory diseases which are caused by untreated sexually transmitted diseases such as chlamydia and gonorrhea. Pelvic inflammatory diseases can cause scarring and damage to the fallopian tube (Moller et

al.,2021). Due to Chronic health issues and recurring health problems women's physical health and quality of life are affected, and due to untreated infections. Sexually transmitted diseases associated with stigma exhibit these health issues psychologically by causing social isolation, anxiety, and depression (Sexually Transmitted Diseases Journal 2017). It also impacts society and economy including medical expenses and productivity losses, particularly in women who are unable to work because of the diseases (CDC, 2020). These are the results of previous research, which shows the effects of untreated sexually transmitted diseases on women's emotional, physical, and socioeconomic wellbeing (Hooton et al.,2020; Pubmed article). Early detection and treatment are required to decrease the long-term effects. Intimate partner violence and sexual trauma are also impacted by untreated sexually transmitted diseases due to partner abuse may lead women to unprotected intercourse or limit their chance to get treatment which increases the risk of infection and revictimization.

Routine screening is important to increase prevention and decrease the effect of untreated sexually transmitted diseases in women. Awareness programs in schools and social activities are necessary to get to know about safe sexual practices and the value of early detection. In underprivileged communities, reasonably priced healthcare should be made available. Addressing cultural obstacles to care is important for increasing public health outcomes.

Also, women who are affected by these illnesses especially those who are victims of intimate partner abuse or sexual trauma should get mental health support to reduce the psychological impact of sexually transmitted diseases. Health education, screening, easily available caring, and psychological support can lessen the long-term effects of untreated sexually transmitted diseases on women physically and mentally.

This research is unable to know the investigation into the effects of untreated sexually transmitted diseases in women which is considered to be a drawback of this study. It was unable to get the long-term effects making it difficult to monitor health outcomes over time because it is cross-sectional. Also, the sample size might not be enough to get the variety of women with untreated sexually transmitted diseases. In women who are unable to express their STD status or experience due to the stigma associated with them, potential biases are introduced by methodological issues. It was also difficult to completely find the impact of damage due to the difficulties in monitoring the long-term effects of untreated STDs such as chronic infertility or ongoing mental health problems. These drawbacks are highlighted because of the necessity of additional studies suggesting more techniques and longitudinal designs.

Conclusion and recommendations

Important physical, psychological, and social factors such as infertility, chronic infections, and mental health conditions including depression, and anxiety are highlighted by the research topic of the effects of untreated sexually transmitted diseases in women. Social stigma about sexually transmitted diseases, cultural barriers that prevent women from getting care, and limited access to healthcare, especially in rural areas are all diagnosis problems. Also, due to a lack of knowledge about the importance of routine screening who engage in sexual activity, including sex education to increase awareness of sexually transmitted diseases and decrease stigma through public health education to know these issues. Social and emotional impacts of untreated infections require supporting the mental health of women who have sexually transmitted diseases especially those who are the victims of intimate partner violence.

Still, more research is needed to determine how untreated sexually transmitted diseases impact women's physical and mental health for a long time through longitudinal studies and continuous monitoring. These investigations should focus on the long-term effects of untreated sexually transmitted diseases like cancer, chronic pain, and infertility. Additionally, studies on the connection between partner violence, mental health, and sexually transmitted diseases should be done to know how untreated sexually transmitted diseases affect psychological stress like anxiety and depression. A focus on people

who are living in rural areas, low-income women, and women of color should be carried by doing public health interventions. More studies can find more effective methods for prevention, early detection, and obstacles of women affected with sexually transmitted diseases by examining these issues of their physical and mental health.

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