

## **Common misconceptions and myths about sexually transmitted infections**

*Nacer Nezha<sup>1,2</sup>, Ouzennou Nadia<sup>1,3</sup>, Chouikh Jaouad<sup>1,2</sup>, Nacer Khadija<sup>4</sup> and Rkha Sami<sup>1</sup>*

<sup>1</sup>*Laboratory of pharmacology, neurobiology, anthropobiology and environment, Department of Biology, Faculty of Sciences Semlalia, Cadi Ayyad University, Marrakech, Morocco*

<sup>2</sup>*Higher Institute of Nursing and Health Techniques of Marrakech, Annex Essaouira, Ministry of Health and Social Protection, Morocco*

<sup>3</sup>*Higher Institute of Nursing and Health Techniques of Marrakech, Ministry of Health and Social Protection, Morocco*

<sup>4</sup>*Mohammed VI University Hospital of Marrakech, Ministry of Health and Social Protection, Morocco*

**ABSTRACT:** Sexually transmitted infections (STIs) are surrounded by numerous misconceptions and persistent myths that can have harmful consequences for public health. These erroneous beliefs often concern modes of transmission, symptoms, treatments and prevention of STIs. For example, some people mistakenly believe that STIs cannot be contracted through oral or anal sex, or that STIs are always accompanied by visible symptoms. These misconceptions can lead to risky behavior and delays in screening and treatment. Another common myth is that STIs only affect certain population groups, which can lead to stigmatization and discrimination. In reality, anyone who is sexually active can be exposed to STIs, regardless of age, sexual orientation or social status. It's also wrong to believe that hormonal contraception methods protect against STIs, or that you can't be infected again after treatment. These misconceptions underline the importance of comprehensive, factual sex education to combat misinformation and promote safe, responsible sexual practices.

**Keywords:** Sexually transmitted infections, Myths, Misconceptions, Prevention, Treatment, Vaccination.

### **1. INTRODUCTION**

Misconceptions and myths surrounding sexually transmitted infections (STIs) are widespread and can significantly hinder the effectiveness of prevention and treatment efforts (Meyyappan, 2021). Among the common misconceptions are the beliefs that STIs are rare, only affect certain groups, or can be easily identified by symptoms. These misconceptions contribute to stigmatization, inadequate prevention practices, and treatment delays (Stewart et al., 2020 ; Meyyappan, 2021 ; Carmichael, 2024). It is essential

to combat these misconceptions thru education to improve public health outcomes (Thomas et al., 2022 ; De Wit et al., 2023). The following sections present the main misconceptions, myths, and educational strategies to address them.

## **2. MISCONCEPTIONS AND MYTHS ABOUT SEXUALLY TRANSMITTED INFECTIONS**

There are several common misconceptions and myths about sexually transmitted infections (STIs) that can hinder effective prevention and treatment efforts:

**STIs Always Show Symptom:** A prevalent misconception is that STIs always present noticeable symptoms. In reality, many STIs can be asymptomatic, which means individuals may not show any signs of infection, especially in women. This asymptomatic nature contributes to the underreporting and undiagnosed cases, leading to untreated STIs that can have severe health consequences (Barth et al., 2002 ; Mermelstein & Plax, 2016 ; Unemo et al., 2017 ; Vermund et al., 2021).

**Condoms are 100% Effective:** While condoms significantly reduce the risk of STI transmission, they are not 100% effective. Transmission can still occur through other types of contact or if the condom is used incorrectly. Therefore, it's crucial to combine condom use with regular STI screenings (Hazra et al., 2024).

**STIs only affect certain groups of people:** Another myth is that STIs primarily affect certain groups, such as young people or those with multiple partners. STIs can affect anyone who is sexually active, regardless of gender, sexual orientation, or socioeconomic status. However, data indicates a disproportionate burden among young people and certain minority groups, underlining the importance of targeted awareness campaigns (Meyyappan, 2021 ; Stewart et al., 2020 ; Carmichael, 2024).

**You can tell if someone has an STI:** Many assume that one can discern if a partner has an STI based on their appearance or behavior. This is not true, as many STIs can present no visible symptoms, making it crucial for sexually active individuals to engage in open communication with partners and undergo regular health checks (Van Gerwen et al., 2022).

**Once treated, STIs are no longer a concern:** Treatment can cure many bacterial STIs, but reinfection is possible, especially if sexual partners are not treated simultaneously. For viral STIs like herpes and HIV, while manageable, they remain lifelong infections (Carmona-Gutierrez et al., 2016).

**Oral and anal sex are safe from STIs:** STIs can be transmitted through oral and anal sex, not just vaginal intercourse. Misunderstanding this aspect can lead to the spread of infections if protective measures like dental dams for oral sex or condoms for anal sex are not used (Vermund et al., 2021).

STIs affect only physical health: While the physical impact of STIs, such as infertility and cancer, is significant, there are also psychological and social consequences, such as stigma and mental health issues, particularly among women (Stewart et al., 2020).

These myths can lead to risky sexual behaviors, as individuals may underestimate their risk or avoid preventive measures such as using condoms (Barth et al., 2002 ; Moya et al., 2023). Efforts must be made to correct these misconceptions through comprehensive education and accessible healthcare services, enabling better prevention and control of STIs.

### **3. EDUCATIONAL STRATEGIES**

Comprehensive sex education and peer-led education are key levers for reducing the prevalence of STIs and promoting safe sexual behaviors: evidence-based education must include information on the prevalence of STIs, their often asymptomatic nature, and prevention methods, and be accessible to all age groups, particularly adolescents and young adults (Carmichael, 2024 ; Mermelstein & Plax, 2016 ; Barth et al., 2002). At the same time, peer-led programs have shown their effectiveness in changing attitudes and improving students' knowledge about STIs (Carmichael, 2024). Structured frameworks of psychoeducation and anti-stigmatization can further reduce prejudice and encourage testing and treatment (Meyyappan, 2021), while systematic psychoeducation can dismantle myths and promote safer sexual practices (Meyyappan, 2021). However, it should be remembered that cultural and social factors play a significant role in the formation of beliefs and behaviors; efforts aimed at improving STI education must therefore take these contexts into account to ensure culturally adapted and effective interventions in various communities (Chawada et al., 2017).

### **4. THE CHALLENGES AND OPPORTUNITIES TO COMBAT MISCONCEPTIONS AND MYTHS ABOUT SEXUALLY TRANSMITTED INFECTIONS IN HIGH-RISK COMMUNITIES**

People with STIs often face societal stigma, which can lead to self-stigma, affect their mental health, and their willingness to seek treatment (Meyyappan, 2021). Similarly, stigmatization creates obstacles when discussing STIs with partners, which can hinder safe sexual practices and increase transmission rates (Mermelstein & Plax, 2016).

The interface between STI stigmatization and educational efforts suggests an integrated approach where psychoeducational frameworks and community interventions aim to reduce prejudice while improving access to testing and treatment (Barth et al., 2002 ; Moya et al., 2023). Thus, societal stigmatization and self-stigmatization (Mermelstein & Plax, 2016) hinder the demand for services and exacerbate delays in care, which can undermine mental and physical health outcomes, while peer-led programs, destigmatization campaigns, and evidence-based messages, including information on the prevalence and asymptomatic

nature of STIs, can change attitudes and increase screening and treatment rates in high-risk communities (Meyyappan, 2021; Carmichael, 2024). To maximize impact, these initiatives must be culturally adapted, involve local leaders, debunk myths with clear and sensitive explanations, and be measurable thru indicators of attitude and behavior change (screening, treatment, healthcare utilization), in order to integrate the fight against STI stigmatization into a comprehensive prevention and reproductive health strategy (Meyyappan, 2021; Carmichael, 2024).

## **5. THE IMPLICATIONS ON REPRODUCTIVE HEALTH**

The effects of STIs on reproductive health are alarming, particularly for women, who bear specific and often more severe repercussions than those observed in men (De Wit et al., 2023). Converging data shows that women are disproportionately more affected by STIs and that these infections can lead to major health consequences on reproductive health, including increased risks of infertility, obstetric complications, and pregnancy-related morbidity (Chuh et al., 2006). This increased vulnerability is explained by a combination of biological, sociocultural, and structural factors. On a biological level, some STIs can directly reach the female reproductive tract and cause irreversible damage if they are not detected and treated quickly, while infections like HPV or HIV have long-term implications for fertility and maternal health (Sinka, 2024). On a societal level, gender inequalities, the stigma associated with STIs, and structural barriers to accessing sexual and reproductive health services (costs, proximity of services, confidentiality, etc.) exacerbate delays in screening and treatment, thereby increasing the risk of complications and spread (Thomas et al., 2022). Moreover, sexual education plays a central role in preventing and mitigating these effects; it not only helps dispel myths and reduce stigma but also reinforces safer sexual behaviors, encourages regular screening, and improves preventive practices such as condom use, vaccination (HPV), and early access to care. In this context, the conclusions drawn by Gerwen (2022) and De Wit et al. (2022) highlight the importance of a holistic approach that combines prevention, screening, and education, in order to reduce disparities and improve reproductive health outcomes for women (Van Gerwen et al., 2022 ; Thomas et al., 2022). For these objectives to be achieved, it is crucial to integrate comprehensive sexual education programs into educational systems and health services, ensuring that they address myths, stigmatization, and sociocultural determinants that influence access and behaviors, while adapting messages to local and cultural contexts to maximize adherence and impact on women's reproductive health.

## **6. STRATEGIES FOR IMPROVEMENT**

Enhanced education and awareness Programs: Educational interventions that are tailored to specific demographics, such as adolescents and at-risk populations, can significantly improve knowledge and risk perception. Integrating STI education into school curricula and community health programs helps maintain a consistent flow of accurate information (Zizza et al., 2021 ; Thomas et al., 2022 ; Carmichael, 2024).

**Communication and Counseling:** Effective communication strategies are essential for bridging the gap between knowledge and behavior. Counseling services should focus on destigmatizing STIs and promoting open discussions about sexual health and safe practices (Ericsson et al., 2001).

**Access to preventive measures:** Increasing the accessibility and affordability of preventive tools, such as condoms and vaccinations like the HPV vaccine, is vital. Implementing comprehensive healthcare services that include STI screening and treatment without stigma can also encourage more individuals to utilize these services (Marrazzo & Cates, 2011).

**Cultural and contextual adaptation:** Understanding and respecting cultural contexts are crucial in designing interventions that resonate with different communities, particularly in regions where STIs are heavily stigmatized. Involving community leaders and utilizing culturally relevant messaging can enhance the effectiveness of public health campaigns (De Wit et al., 2023).

**Policy and funding:** Government policies should prioritize funding for STI research and prevention programs. Establishing robust surveillance systems and research into the socio-epidemic aspects of STIs can guide the development of targeted interventions and health policies (Vermund et al., 2021).

Implementing these strategies could significantly reduce the incidence and impact of STIs, ultimately leading to healthier communities and a more informed public.

## **7. CONCLUSION**

In conclusion, STIs remain a significant public health challenge globally, exacerbated by widespread misconceptions and inconsistent preventive behaviors. Although public knowledge about the transmission and prevention of STIs has improved over time, gaps still exist between awareness and actual protective practices. This dissonance leads to persistent high rates of STIs and underlines the critical need for comprehensive intervention strategies.

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