

LOW UTILIZATION OF PROPHYLACTICS AMONG MSM

Barriers that Contribute to Low Utilization of Prophylactic Use Among Men who have Sex
with Men

A Literature Review

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HPRB 5010: Research Design

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April 22, 2025

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Research Question: What are the factors that contribute to low levels of prophylactics among MSM in the United States?

INTRODUCTION

Sexually Transmitted Infections (STIs) are infections caused by viruses, bacteria, fungus, or parasites that are transmitted through sexual contact. Modes of transmission include vaginal, oral, and anal sex (CDC, 2024a). Being sexually active is the most common risk factor for acquiring (Mayo Clinic Staff, 2023). Additional behaviors that increase STI risk include having unprotected sex, engaging with multiple partners, and having a history of previous STIs (Mayo Clinic Staff, 2023).

Common STIs in the United States include chlamydia, gonorrhea, hepatitis B (Hep B), human papillomavirus (HPV), Human Immunodeficiency Virus (HIV), and trichomoniasis (CDC, 2024c). In 2018, data showed chlamydia, trichomoniasis, genital herpes and HPV accounted for approximately 98% of all prevalent STIs (CDC, 2024c).

Among populations at risk, men who have sex with men (MSM) are considered especially vulnerable to STI acquisition (CDC, 2021). MSM are disproportionately affected by HIV in particular, representing the highest-risk group for HIV transmission in the United (NIH, 2025).

Pre-Exposure prophylaxis (PrEP) is a medicine that reduces the chances of HIV through sex by 99% when taken as prescribed (CDC, 2024d). Currently PrEP is offered in the form of once-a-day pills or bi-monthly intramuscular injections (CDC, 2024d). While advancements in PrEP medication has improved in recent years, uptake among racial and

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ethnic MSM populations has not increased at the same rate as their white counterparts (Dafna Kanny, 2019). Currently in the United States, Black MSM are at the highest risk for HIV infection among the MSM community (Biello et al., 2018).

Despite the availability of effective prophylactics, such as condoms and pre-exposure prophylaxis (PrEP) usage rate remain suboptimal in this population (NIH 2023).

Prophylactics methods and tools include external and internal condoms, and biomedical interventions like pre-exposure prophylaxis (PrEP) and post-exposure prophylaxis (PEP), all of which are to prevent and reduce the risk of acquiring HIV and STIs when used correctly (NIH 2023). PrEP has been proven to lower the risk of HIV acquisition from sexual activity by up to 99% (CDC, 2024d). Although, consistent and widespread uptake among the MSM population in the United States has remained low, particularly among racial and ethnic minorities and younger MSM (Sullivan & Eaton, 2021).

Recent and emerging literature suggests that behavioral and cultural factors, such as the normalization of hookup culture and increased use of dating apps like Grindr and Tinder, can influence attitudes towards condom and PrEP use (Adan et al., 2024). The use of these platforms often promotes casual sexual encounters, which may lead to decreased discussion about condom use and assumptions about their partners HIV and STI status (Montaño et al., 2019). Consequently, MSM engaging in frequent casual sexual encounters may end up prioritizing PrEP over condoms, which contributes to the decline in condom use despite PrEP not providing protection against all STIs (Chen et al., 2019).

Understanding the underlying reasons for low prophylactic uptake among MSM is essential for developing effective public health strategies, especially while STI rates rise within this population (CDC, 2024b).

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This literature review aims to explore the factors that contribute to low levels of prophylactic use—specifically condoms and PrEP—among MSM in the United States. It also seeks to analyze how dating and hookup apps influence these behaviors while highlighting gaps in the literature and research to improve intervention strategies.

METHODS

Search Strategy

In this literature review, a comprehensive search was conducted through PubMed within the University of Georgia’s library database to locate peer-reviewed articles that pertain to this research question. PubMed is a widely recognized biomedical database maintained by the National Library of Medicine, providing access to scientific and medical research that supports evidence-based public health inquiry.

Inclusion and Exclusion Criteria

To ensure the relevance and quality of the sources and articles selected, inclusion and exclusion criteria were incorporated. Only articles published within the past ten years (2014-2024) were strictly utilized in each search to maintain recency in the literature. Keywords “Gay”, “MSM”, or “Homosexual” were used in all the searches specifically to target articles specifically addressing men who have sex with men (MSM) in the United States. These keywords were often linked using the Boolean operator “OR” to broaden search results. The keyword “United States” was also included in one of the three searches to geographically narrow the focus to literature pertaining to MSM within the context of the United States. Additionally, only peer-reviewed and research articles were only considered in the searches for use.

Search Process and Article Selection

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To start the search process, generalized search terms were used to identify a broad range of relevant literature. The initial search used the terms “(condoms) AND (Gay men OR MSM OR Homosexual), applied with the time constraint filter and peer-reviewed filter. This search yielded 10,337 results which was too broad. To refine these results the keyword “(apps)” was added to the original search, producing a manageable yielding of 461 articles. From these 461 articles, six articles were chosen for inclusion in this literature review. Selection was based on a review of the titles and abstracts to determine relevance to the research question. The addition of “apps” was intentional, as geo-location-based dating applications may influence prophylactic behaviors in MSM populations and were hypothesized to be relevant to patterns of low usage.

A second and more specific search was then conducted using the keywords, “(prophylactics) AND (MSM) AND (Gay) AND (United States)” with the same publication year and peer-review filters applied. This search yielded 136 articles. From this search, 12 articles were selected based on a review of abstracts and alignment with the focus of the literature review.

An additional and final search was done on PubMed, to find five more articles. Keywords searched were “(condoms) AND (Gay men OR MSM OR Homosexual) AND (United States or US)” with the publication filter of ten years and free and full text. This search yielded 5 articles, which were selected based on their abstracts and results section and their alignment with the focus of the literature review.

Rationale for Search Strategy

This multi-step search process was designed to balance the specificity and breadth of the research topic. The first search provided a wider cast to capture the general view of condom use among MSM, while the second search was more targeted to finding studies that explicitly

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addressed prophylactic use within US-based MSM populations. The continued refinement of search terms, especially the inclusion of “apps”, was made by preliminary readings and knowledge suggesting that dating and hookup app use are a key behavioral factor influencing both condom and PrEP usage among MSM.

RESULTS

A review of the literature reveals that there are several intersecting factors that contribute to the low levels of prophylactic use among men who have sex with men (MSM) in the United States. These include influences from dating and hookup app culture, body image issues, mental health status, perceptions of HIV risk and prevention, and broader cultural or community norms.

Dating Apps, Hookup Culture, and Condom Use

The use of dating and hookup apps, such as Grindr and Scruff, play a notable role in condom use decisions. A group of researchers found that MSM in the Deep South using these geosocial networking apps perceived condom negotiations as distrustful, oftentimes opting for condomless anal sex, which is seen as a way to improve intimacy and trust (Goedel, Safren, et al., 2017). Similarly, another research team found that while app usage did not directly correlate with condom use, demographic factors like age and race indirectly influenced condomless anal sex among app users (Goedel, Krebs, et al., 2017). The disclosure of HIV status and sexual intentions via online profiles also impact decisions, as some MSM make the assumption that their partners have disclosed accurate information, which reduces the need for condom use (Chadwick et al., 2023).

Body Image and Sexual Risk Behavior

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Body image and dissatisfaction also present themselves as important contributors to low prophylactic use among MSM. A journal article researching body dissatisfaction found that MSM with higher BMI and body dissatisfaction reported decreased confidence in their ability to use condoms consistently (Goedel, Krebs, et al., 2017). Consequently, sexualized body ideals in hookup culture were associated with preferences for condomless anal sex among MSM with “ideal” body types, who often perceived physical attractiveness as a proxy for lower HIV risk (Smith & Amaro, 2021).

Mental Health and Psychological Factors

With the intersection of mental health issues, the use of prophylactics among MSM becomes more complicated. It was found that MSM experiencing depression were more likely to engage in condomless anal sex, while depression did not significantly influence the number of sexual partners (Millar et al., 2017). Which highlights how emotional well-being can impair the risk assessment and reduce motivation to engage in safer sex practices among MSM.

Substance use, safe sex fatigue and overly optimistic beliefs about HIV treatment outcomes were also noted as psychological and behavioral barriers to consistent condom use (Vosvick et al., 2016). Furthermore, the indifference towards STIs other than HIV has led to some MSM engaging in condomless anal sex, viewing non-HIV infections as less serious and more easily treatable (Sullivan & Eaton, 2021).

Additionally, a study found that syndemic conditions—such as substance use, depression, and intimate partner violence—experienced by MSM, led to an increase engagement in condomless anal sex, but this association may be mediated by condom-use self-efficacy (Safren et al., 2018).

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While those who are aware of their risk with HIV, the gap between the intention and action in relation to condom use, remains significant. Research has indicated that MSM with specific and strong implementation strategies—detailed plans on how and when to use condoms—are significantly more likely to follow through with protective sexual behavior (Nydegger & Walsh, 2018). Suggesting that behavioral strategies that are focused on planning methods may be just as critical as knowledge and motivation with increasing condom use.

Age and Relationship Dynamics

Some demographic and developmental factors also correlate with prophylactic behaviors. One research team observed that condomless anal sex increased with age, especially through the context of casual sexual partners (Newcomb & Mustanski, 2016). Interpersonal violence within MSM relationships also increased the risk of HIV acquisition while decreasing condom use (Newcomb & Mustanski, 2016).

Attitudes Towards PrEP and STI Risk Perception

Attitudes and beliefs towards HIV prevention tools like PrEP also shape sexual behaviors of MSM. It was reported that many MSM declined PrEP because they did not perceive themselves to be at risk, even though they were engaging in high-risk sexual behaviors (Kota et al., 2024). This discrepancy between the perceived and actual risk highlights a significant and crucial gap in the HIV and STI prevention and education among the MSM population. Furthermore, stigma surrounding PrEP use presents as the main deterrent from its implementation, as well as the lack of knowledge and awareness about PrEP and its benefits (Rosas Cancio-Suárez et al., 2023).

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Many MSM that are not on PrEP may use condoms and/or reduce the number of their sexual partners, demonstrating that PrEP use is not the sole indication of risk reduction (Goodreau et al., 2024). Consequently, medical providers such as doctors and nurses are relevant when discussing the role of stigma associated with PrEP, and its use among MSM. The belief among clinicians that because MSM are most at risk for HIV, that all MSM should be on PrEP, may create another form of stigma, that decreases uptake, as some clinicians may frame PrEP non-use as irresponsible regardless of the individuals sexual behavior (Hascher et al., 2023).

However, in 2022 the use of injectable PrEP became an available form of long-acting HIV prevention medication given intramuscularly once every two months, currently under the name Apretude (PrEPWatch, 2024). From a clinical trial of majority Black/African American cisgender MSM found that adherence to injectable PrEP was slightly higher than daily oral PrEP, particularly due to reduced burden of daily medication and the lower perceived stigma (Psaros et al., 2024). A shift towards long-acting HIV prevention medication, may help address adherence challenges and social barriers that continue to impact marginalized MSM populations.

Cultural and Community Norms

Cultural and community norms among MSM further add to the complexity of low prophylactic uptake. In a journal article, it was identified that individual, partner and event-level factors shape condom use, while another article found that the cultural expectations around trust and intimacy often discourage condom use (Pines et al., 2016) (Surace et al., 2017). In the study “No Fats, No Femmes, No Blacks or Asians” , they found that

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internalized and external body and racial preferences within the MSM community can be an influence on sexual risk-taking, including condom use decisions (Smith & Amaro, 2021).

Furthermore a study that analyzed the correlation between the racial/ethnic MSM population and their correlation to condom usage errors it was found that Black MSM had lower levels of HIV knowledge which correlated to higher condom errors (Garofalo et al., 2014). Which exacerbates the growing disparity among racial and ethnic subpopulations of MSM and how a lack of knowledge and education can increase high-risk sexual behaviors.

In addition to the racial disparities among MSM, there also lies generational differences in HIV knowledge and prevention behaviors that shape risk in community norms. One study found that younger MSM often have higher functional knowledge of HIV prevention methods and strategies, while the older cohorts may underestimate their risk or even hold outdated beliefs about transmission (Sharma et al., 2018).

DISCUSSION

This literature review identified several intersection factors that contribute to the low utilization of prophylactics, mainly condoms and PrEP, among the MSM community in the United States. These findings have underscored the complex interaction of psychological, behavioral, cultural, and structural influences that have shaped sexual health behaviors in this population.

Key Findings

Regarding behavioral and cultural influences, dating and hookup apps have significantly impacted how MSM approach sex and sexual behavior risk. These platforms have fostered environments that have prioritized immediate physical connections and, in some ways, have promoted the notion that condomless anal sex is a way to build trust or

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intimacy between sexual partners. Even though this population has the highest PrEP usage level, there has also been a shift into the belief that condoms are valued as less important, which only furthers the increased transmission of non-HIV STIs.

Further Research

Currently, the amount of research that focuses on MSM and the factors that contribute to low prophylactic uptake among this population, is very limited. It is also important to note that while research in this specific topic is limited, the push towards more research within the MSM population, specifically among the racial differences, is pertinent to the advancement of improving health disparities and outcomes.

Limitations

This literature review is subject to several limitations. Firstly, this literature review is based on a finite number of peer-reviewed journal articles that were selected through a specific search strategy. Additionally, most of this literature review focused heavily on PrEP and HIV prevention rather than condom use alone, narrowing the scope of findings that are related solely to the traditional prophylactic methods. This may result from most the research for the MSM population and prophylactics is focused more on HIV prevention prophylactics, rather than just solely condoms.

Racial/ethnic factors also present as a limitation in this literature review. Minimal studies that include and evaluate the racial/ethnic factors that contribute to low levels of prophylactics in the MSM community in the United States, show that there remains a gap in intersectional research. There also remains a disproportionate rate of MSM populations in urban settings, which does not accurately capture the experiences of MSM in rural regions in the United States.

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The current political climate in the United States presents as a limitation in this literature review and the research within the MSM population and HIV/STI prevention. Many public health agencies funded by the federal government, have since lost their funding which has resulted in decreased continued research in the MSM population, as well as general research of HIV. Additionally, many resources and research articles that relate to the topic of this literature review, have been archived and removed from once reputable government sources. This has made it limiting with including significant information in this literature review.

Conclusion

The utilization of prophylactics among men who have sex with men (MSM) in the United States, continues to remain a pressing public health concern, not only in the United States but worldwide. This literature review examines the contributing factors that go beyond decision-making with prophylactic use. Cultural norms, app-based sexual behaviors, psychological health, body image, risk self-perception, and systemic disparities play an intersectional role in the MSM prophylactic use.

These findings have suggested that necessary public health strategies need to extend beyond the current approach towards MSM sexual health. Multifaceted interventions need to address mental health, stigma, and education while recognizing the social dynamics of intimacy, trust and desirability within MSM communities. It is also important to note the urgency in improving outreach and prevention programs among racial and ethnic minority MSM, who are the ones that disproportionately are affected by disparities in STI and HIV outcomes.

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At length, the advancement of sexual health equity will require sustained research, culturally competent and responsive interventions, and effective targeted educational campaigns that center the lived experiences of diverse MSM populations. From acknowledging and addressing these structural, emotional, and behavioral barriers that MSM populations face towards prophylactic use, public health and clinical practitioners can begin to reduce these disparities and promote healthier outcomes for all MSM.

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