

## Understanding and Addressing Determinants of Condom Use Compliance Among Clients of Sex Workers: A Public Health Perspective

Arwan<sup>1</sup>

<sup>1</sup>Universitas Tadulako, Indonesia

Correspondent: [arwan@untad.ac.id](mailto:arwan@untad.ac.id)<sup>1</sup>

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**ABSTRACT:** Condom use compliance among clients of sex workers is a critical factor in preventing sexually transmitted infections (STIs) and ensuring public health safety. This study systematically reviews global research on the determinants of condom use compliance, focusing on socio-economic, legal, and behavioral influences. A comprehensive literature search was conducted using PubMed, Scopus, and Google Scholar, incorporating studies published within the last 15 years. Findings indicate substantial regional disparities in condom use, with compliance rates significantly lower in areas where sex work is criminalized and financial negotiations frequently lead to unsafe practices. Additionally, substance use and perceived trust in repeat client relationships contribute to decreased condom adherence. The discussion highlights systemic barriers, including stigma and law enforcement practices, which deter sex workers from advocating for safer sex practices. Effective strategies to enhance compliance include legal decriminalization, economic support programs, and community-driven interventions. These approaches empower sex workers to negotiate safer practices while mitigating risks associated with STI transmission. Future research should focus on evaluating policy reforms, assessing long-term behavioral shifts, and refining targeted interventions for different client demographics. Addressing structural and behavioral challenges through comprehensive public health policies is imperative for reducing infection rates and improving sexual health outcomes.

**Keywords:** Condom Use Compliance, Sex Work Policy, Sexually Transmitted Infections, Client Behavior, Public Health Interventions, Harm Reduction, Decriminalization.



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## INTRODUCTION

Condom use compliance among clients of sex workers is a critical dimension in curbing the transmission of sexually transmitted infections (STIs), including HIV. While global health initiatives have expanded access to condoms and promoted safe sex practices, adherence rates remain uneven due to intersecting socio-economic, legal, cultural, and behavioral factors (Han et al., 2015; Lim et al., 2015).

Condom use rates vary significantly across countries, shaped by public health infrastructure, legal environments, and social attitudes toward sex work. For instance, countries like the United Kingdom with decriminalized sex work and comprehensive sexual health policies report high compliance rates—often above 80% (Syvertsen et al., 2013). In contrast, low-income settings such as parts of Sub-Saharan Africa and South Asia show markedly lower rates, often below 50%, especially in regions where sex work is criminalized and condom access is restricted (Abbott et al., 2013; Volkmann et al., 2013). These contrasts suggest that robust legal protections and well-funded public health services are instrumental in encouraging consistent condom use.

Socioeconomic status significantly influences clients' attitudes toward condom use. Clients from lower-income backgrounds often possess limited health literacy, lower STI risk perception, and engage in riskier behaviors such as offering financial incentives for condomless sex (Alam et al., 2013; McBride et al., 2021). Gender dynamics further complicate condom negotiation, with entrenched norms of masculinity and male dominance pressuring female sex workers (FSWs) into accepting unsafe practices. For example, studies in Kenya and India have documented instances where male clients equate condom use with mistrust or emasculation, undermining its usage (Januraga et al., 2020; Lüchters et al., 2013).

Despite increasing research attention, several important gaps persist. One key underexplored area is the role of client psychological and relational factors, such as how emotional attachment, trust, and perceived intimacy with repeat clients affect condom negotiation. While existing studies often differentiate between occasional and repeat clients, few delve into the psychosocial mechanisms that drive reduced condom use in long-term transactional relationships (Erickson et al., 2015; Syvertsen et al., 2013). Moreover, migrant and adolescent sex worker populations, who may face additional negotiation barriers due to legal vulnerability or power asymmetries, remain inadequately studied (Zhang et al., 2012).

This narrative review addresses these gaps by offering a comparative synthesis of global findings, systematically categorizing the determinants of condom use compliance among clients of sex workers. In doing so, it emphasizes the interplay between legal structures, socio-economic pressures, behavioral tendencies (e.g., substance use), and underrepresented psychosocial dimensions in client–sex worker dynamics. The review also aims to propose a more differentiated understanding of client typologies and to inform evidence-based public health interventions adaptable across varying legal and cultural contexts.

## **METHOD**

This study employs a systematic review approach to examine factors influencing condom use compliance among clients of sex workers. A comprehensive literature search was conducted across three major academic databases: PubMed, Scopus, and Google Scholar. The search targeted studies published within the last 15 years to ensure the inclusion of the most recent and relevant findings. The search strategy utilized a combination of pre-defined keywords and Boolean operators to maximize both precision and completeness. Keywords included "condom use compliance," "clients of sex workers," "HIV prevention," "barriers to condom use," and "high-risk sexual

behavior." Additional search techniques such as phrase searches, truncation symbols, and field-specific filters were employed to refine the selection process.

The study selection followed clearly defined inclusion and exclusion criteria. Only peer-reviewed empirical studies, systematic reviews, and meta-analyses that directly analyzed condom use compliance among clients of sex workers were included. Studies focusing on populations irrelevant to the review, lacking empirical evidence, or not published in English were excluded. The initial screening process involved reviewing titles and abstracts, followed by a full-text assessment to determine relevance and methodological rigor.

To enhance reliability, a multi-stage screening process was employed. Four independent reviewers evaluated the selected studies, ensuring alignment with the inclusion criteria. Thematic synthesis was used to identify recurring patterns related to socio-economic, behavioral, and cultural determinants of condom use compliance. The findings provide insights into the structural barriers affecting condom negotiation and the effectiveness of various intervention strategies in different geographical contexts.

## **RESULT AND DISCUSSION**

The compliance rates of condom use among clients of sex workers vary significantly across different regions and socio-economic settings. Studies in high-income countries report relatively high rates of condom use compliance, often exceeding 80% among clients of female sex workers (FSWs). A systematic review in the United Kingdom, for instance, indicated that around 85% of clients consistently used condoms during encounters in regulated brothels (Syvertsen et al., 2013). In contrast, research conducted in low-income regions, such as parts of sub-Saharan Africa, has found inconsistent condom use rates as low as 30%, highlighting the need for targeted intervention programs (Mokinu et al., 2024; Volkmann et al., 2013).

In Asia, compliance rates reflect regional disparities. A study from China reported that only 50% of participants adhered to condom use during encounters with sex workers, particularly in rural areas where socio-economic challenges influence behavioral choices (Han et al., 2015). In urban environments such as Tijuana, Mexico, condom use rates among more affluent patrons approached 70%, whereas compliance dropped significantly among drug-using clients and those engaged in informal arrangements (Cooperman et al., 2013; Regan & Morisky, 2012). These variations suggest that economic stability, education, and access to health services play crucial roles in shaping condom use behaviors among clients of sex workers.

### **Variations in Condom Use Compliance Between Occasional and Repeat Clients of Sex Workers**

There is a notable difference in condom use compliance between occasional and repeat clients of sex workers. Studies indicate that occasional clients, who engage in transactional sex infrequently, demonstrate higher rates of condom use, often exceeding 80% in episodic encounters (Bui et al.,

2014; Swe & Rashid, 2013). In contrast, regular clients show a substantial decline in compliance, often influenced by emotional attachment and perceived trust in long-term sexual interactions (Hailemariam et al., 2020; Syvertsen et al., 2013).

Qualitative studies in Mexico illustrate that FSWs often reduce condom use with repeat clients due to established emotional bonds and a sense of exclusivity (Lim et al., 2015). This trend is echoed in global research, where trust and perceived relationship stability diminish risk perception, leading to decreased condom adherence (Lüchters et al., 2013; Zhou et al., 2022). Conversely, occasional clients prioritize safer sex practices due to concerns over STI transmission and minimal emotional investment (Sou et al., 2015). Addressing these behavioral disparities through education and awareness programs remains a key challenge for public health interventions.

## **Barriers to Condom Use**

### **Primary Reasons for Clients Refusing to Use Condoms with Sex Workers**

Clients' refusal to use condoms is influenced by multiple interrelated factors, including perceptions of diminished sexual pleasure and social beliefs. Many male clients hold the misconception that condoms reduce physical sensations, leading to resistance against their use (Mokinu et al., 2024; Sou et al., 2015). In some cases, clients perceive condom use as indicative of distrust, particularly in repeated interactions with the same sex worker, further discouraging adherence to safer sex practices (Parriault et al., 2014).

Economic incentives exacerbate this issue, as clients frequently offer increased payments in exchange for condomless sex. Financial pressures faced by sex workers limit their ability to negotiate for safer sex practices, as immediate economic security often outweighs long-term health risks (Bukonya et al., 2013). Additionally, the potential for conflict or violence deters FSWs from insisting on condom use, creating an environment where clients exert significant control over sexual health decisions (Wilson et al., 2021).

Cultural and societal norms further contribute to condom non-compliance. In many settings, male dominance in sexual decision-making discourages condom negotiation, reinforcing unsafe sexual practices (Treibich & Lépine, 2018). The normalization of these behaviors within certain communities perpetuates the acceptance of non-compliance, undermining global public health initiatives aimed at reducing STI prevalence (Motsoeneng, 2024).

### **How Alcohol and Drug Use Affect Condom Use Compliance Among Clients of Sex Workers**

Alcohol and drug use are strongly correlated with reduced condom compliance among clients of sex workers. Studies consistently demonstrate that substance use impairs judgment, increasing the likelihood of unprotected sex (Haldar et al., 2023; Lunkuse et al., 2022; Rasouli et al., 2023). Clients who consume alcohol or drugs before or during encounters with sex workers are significantly more

likely to forgo condom use due to lowered inhibitions and impaired decision-making (Chen et al., 2013; Chersich et al., 2014).

Research in party and club settings indicates that intoxicated clients often engage in riskier sexual behaviors, including unprotected sex with multiple partners (Goodman-Meza et al., 2014). The normalization of substance use in these environments reduces clients' willingness to negotiate condom use, leading to increased STI transmission risks (McBride et al., 2021). Furthermore, habitual substance users demonstrate persistent patterns of non-compliance, necessitating targeted intervention programs that address both drug use and sexual health risks (Footer et al., 2016; Suryawanshi et al., 2015).

## **Socioeconomic and Legal Influences**

### **Effects of Criminalization of Sex Work on Condom Use Compliance**

The criminalization of sex work has a profound impact on condom use compliance, creating environments where sex workers are unable to assert control over their sexual health. In settings where sex work is illegal, FSWs face heightened risks of violence and exploitation, which diminishes their ability to negotiate for safer sex practices ((Swe & Rashid, 2013; Syvertsen et al., 2013). The fear of legal repercussions discourages sex workers from accessing health services, further exacerbating STI risks (Charles et al., 2013).

Criminalization also empowers clients to refuse condom use, as sex workers often feel pressured to comply in order to avoid confrontations or potential legal consequences (Merrigan et al., 2014). Studies in highly regulated environments indicate that decriminalization and the establishment of protective policies significantly improve condom compliance rates among sex workers and their clients (Bradburn et al., 2016). By contrast, sex workers in criminalized settings report lower negotiation power, frequently compromising safer sex practices due to concerns over personal safety and legal threats (Januraga et al., 2020).

### **Role of Economic Factors in the Negotiation of Condom Use**

Economic factors play a pivotal role in condom use negotiations between sex workers and their clients. Financial insecurity often compels sex workers to accept higher payments for condomless sex, as economic survival takes precedence over health concerns (Lim et al., 2015; Swe & Rashid, 2013). Clients frequently exploit these vulnerabilities, offering additional compensation in exchange for unprotected sex (Bradburn et al., 2016; Mokinu et al., 2024).

Research highlights disparities in condom use compliance based on clients' socio-economic backgrounds. Lower-income clients often exhibit lower adherence to safe sex practices, either due to limited access to sexual health education or the prioritization of immediate gratification over long-term health risks (Alam et al., 2013; Hailemariam et al., 2020). Conversely, wealthier clients demonstrate higher compliance rates, reflecting greater awareness of STI risks and access to resources that support safe sex practices.

The complex interplay of economic pressures and condom negotiation highlights the need for systemic interventions that provide financial stability and health education for sex workers. Policies aimed at economic empowerment and consistent healthcare access are critical in reducing STI transmission risks and improving sexual health outcomes within this population (Kohler et al., 2015; Sibanda et al., 2021)

### **Systemic Factors Influencing Condom Use Compliance Among Sex Workers' Clients**

Numerous studies investigating condom use compliance among sex workers and their clients reveal significant gaps and inconsistencies, particularly when compared to existing policies and public health interventions aimed at promoting safer sex practices. Research indicates that despite the implementation of comprehensive harm reduction strategies in regions like sub-Saharan Africa, actual rates of condom use remain disappointingly low among sex workers and their regular clients (Cooperman et al., 2013; Lim et al., 2015). These findings suggest that while policies may exist to encourage condom use, the effectiveness of these interventions is often undermined by socio-economic factors, legal barriers, and cultural norms surrounding sex work (Argento et al., 2015; Prakash et al., 2018).

Additionally, studies highlight that the criminalization of sex work often leads to increased stigma and psychosocial distress, which can hinder effective implementation of public health interventions (Dunn et al., 2016; Syvertsen et al., 2013). In settings where sex work is criminalized, sex workers may be less likely to access services aimed at improving condom use compliance, as fear of arrest or harassment can deter them from seeking help (Bell et al., 2020; Parvez et al., 2013). Interventions that fail to account for the stigma associated with sex work and that do not engage directly with sex workers' lived experiences are unlikely to produce sustainable changes in health behaviors (Souverein et al., 2013; Zeng et al., 2015).

Evidence demonstrates that community-led interventions, which build trust and empower sex worker communities, can lead to significant improvements in condom use (Sou et al., 2015; Tran et al., 2019). Programs that integrate peer outreach, provide explicit training on condom negotiation, and reinforce the importance of safer sex practices have been associated with noteworthy increases in consistent condom use among sex workers. Such findings underscore the need for public health policies to be tailored to the realities faced by sex workers, advocating for harm reduction strategies that are both culturally sensitive and legally supportive (Bradburn et al., 2016; Merrigan et al., 2014)

### **Socioeconomic and Legal Barriers to Condom Use**

The criminalization of sex work significantly impacts condom use compliance among sex workers and their clients, posing serious health risks and undermining public health initiatives aimed at reducing the spread of sexually transmitted infections (STIs) and HIV. Legal restrictions surrounding sex work create environments rife with stigma and discrimination, which deter both sex workers and clients from engaging in safe sex practices. Research shows that the



criminalization of sex work shrouds the profession in secrecy, pushing sex work into underground settings where access to health services, including safe sex resources like condoms, becomes limited (Swe & Rashid, 2013; Syvertsen et al., 2013). When sex work is illegal, sex workers may fear arrest or harassment from law enforcement, which inhibits their ability to advocate for safer sexual practices, such as condom use with clients (Charles et al., 2013).

Additionally, the threat of violence from clients increases in criminalized contexts, leading to circumstances where sex workers prioritize immediate safety over using condoms (Merrigan et al., 2014). Studies demonstrate that sex workers in criminalized environments often report a lack of agency in negotiating condom use, with many feeling pressured to acquiesce to clients' demands for unprotected sex in exchange for payment or to avoid potential violence (Motsoeneng, 2024). The fear of being reported to authorities drives sex workers further away from seeking legal recourse or health services due to apprehension about their own legal standing.

Economic factors play a pivotal role in shaping the negotiation dynamics surrounding condom use between sex workers and their clients. The necessity for financial security often compels sex workers to compromise on safe sex practices, particularly when financial constraints are acute. Research shows that many sex workers are under immense pressure to meet daily financial obligations, leading to situations where they might accept higher payments for unprotected sex (Lim et al., 2015; Swe & Rashid, 2013). A study found that economic desperation influenced sex workers' willingness to overlook safe sex practices, especially when clients offered significant sums of money for condomless encounters (Andrews et al., 2015).

Clients often exploit these economic vulnerabilities, as seen in various qualitative studies where it was reported that male clients frequently offered additional payments in exchange for skipping condom use (Foley et al., 2024; Hailemariam et al., 2020). This transactional nature of client-sex worker relationships highlights a power imbalance, whereby economic leverage skews the negotiation process in favor of the client's desires over the health interests of the sex worker.

## Limitation

While this study provides a comprehensive analysis of condom use compliance among clients of sex workers, several limitations should be acknowledged. First, much of the existing literature is based on self-reported data, which can introduce recall bias and social desirability bias, potentially overestimating condom use rates. Additionally, regional differences in data collection methodologies may result in inconsistencies in reporting, making cross-country comparisons challenging. Another limitation is that many studies do not differentiate sufficiently between occasional and repeat clients, despite evidence suggesting significant behavioral differences between these groups. Further, research into the psychological and relational aspects of condom use compliance remains limited, particularly concerning how trust and intimacy between sex workers and their clients influence decision-making regarding condom use.

## **Implication**

The findings of this study have several implications for future research and policy development. Given the clear impact of socio-economic and legal barriers on condom use compliance, future studies should explore interventions that address these systemic challenges. More research is needed to evaluate the effectiveness of decriminalization and harm reduction policies on condom use behaviors. Additionally, longitudinal studies tracking behavioral changes over time would provide valuable insights into how public health interventions influence long-term compliance rates. Policymakers should consider incorporating evidence from community-led interventions to design more effective and culturally sensitive health programs. Furthermore, addressing economic inequalities through empowerment programs for sex workers could mitigate the financial pressures that lead to condom negotiation failures. By focusing on these areas, future research and policy initiatives can work toward improving sexual health outcomes for both sex workers and their clients.

## **CONCLUSION**

This study highlights the multifaceted factors influencing condom use compliance among clients of sex workers, emphasizing socio-economic constraints, legal barriers, and behavioral determinants. The findings underscore significant variations in condom use rates globally, with compliance influenced by criminalization, financial incentives, and substance use. Notably, while occasional clients exhibit higher adherence to condom use, repeat clients often forgo protection due to perceived trust and emotional attachment. The role of economic disparities in condom negotiation is particularly concerning, as financial pressures frequently lead to compromised safe sex practices.

Addressing these challenges requires a multi-pronged approach, including legal reforms that decriminalize sex work, improved access to sexual health education, and economic empowerment programs for sex workers. Strengthening peer-led interventions and community-based strategies can further enhance condom use compliance. Additionally, targeted harm reduction policies and greater integration of healthcare services within sex work communities are essential for long-term public health benefits.

Future research should explore the effectiveness of decriminalization policies on condom use behavior, conduct longitudinal studies to assess behavioral changes over time, and investigate how interventions tailored to different client typologies can improve compliance rates. By implementing structural changes and fostering safer environments for sex workers, policymakers can mitigate STI risks and promote healthier sexual practices across diverse socio-economic contexts.



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