Proceedings of The 3rd International Conference on Science and Islamic Studies
ISSN: 3024-9058 (Online - Elektronik)
Volume: 3, 2025
Publisher: Program Pascasarjana, UIN Alauddin Makassar

PREVENTION AND MANAGEMENT OF HIV/AIDS AMONG FEMALE SEX WORKERS (FSWS): A SYSTEMATIC STUDENT LITERATURE REVIEW BASED ON THE HEALTH BELIEF MODEL (HBM)

Andi Isyana Muharram[1], Fatmawaty Mallapiang[2], & Hasbi Ibrahim[3]

[1,2,3]Universitas Islam Negeri Alauddin Makassar, Indonesia
Correspondence Email: andiisyana.muharram1804@gmail.com

ABSTRACT

HIV/AIDS remains a global health issue that continues to show an increasing trend, particularly among key populations such as Female Sex Workers (FSWs). In Indonesia, HIV transmission remains concentrated among high-risk groups, including non-localized FSWs who work independently in rural–semi-urban regions. The Health Belief Model (HBM) is a widely used theoretical framework to understand determinants of HIV-preventive behaviors. However, most previous studies rely on quantitative approaches and have not explored psychosocial aspects comprehensively. This article aims to conduct a Systematic Student Literature Review (SSLR) to synthesize existing research related to HIV/AIDS prevention and management among FSWs from the HBM perspective. The SSLR method used literature published from 2015–2024, sourced from Google Scholar, PubMed, DOAJ, and SINTA, using strict inclusion–exclusion criteria. Article selection followed a simplified PRISMA protocol. Total of 478 articles were identified through the literature search process, of which 21 articles met the inclusion criteria and were subsequently analyzed thematically based on the six constructs of the Health Belief Model (HBM). Findings indicate that HIV-preventive behaviors among FSWs are shaped by low perceived susceptibility, varied perceived severity, benefits that are not internalized, strong structural barriers, weak cues to action, and low self-efficacy. Key barriers include client pressure, stigma, workplace instability, limited access to VCT services, and economic constraints. This review underscores that HBM-based interventions must consider the sociocultural and economic contexts of non-localized FSWs. Recommendations include strengthening mobile VCT services, community-based condom distribution, empowerment-based education, and multisectoral collaboration.

Keywords: HIV/AIDS; Female sex workers; Health Belief odel; Prevention; SSLR

1. INTRODUCTION

HIV/AIDS remains one of the most pressing global public health challenges. According to UNAIDS (2023), approximately 39 million people worldwide are currently living with HIV, with more than 1.3 million new infections occurring annually. The burden of HIV infection is disproportionately concentrated among key populations, particularly Female Sex Workers (FSWs),

Copyright © 2025: the Author(s)

who face a risk of HIV transmission up to 30 times higher than that of the general population (WHO, 2023). This heightened vulnerability is largely attributable to a combination of biological, behavioral, and structural factors that limit effective risk prevention.

In the Indonesian context, the HIV epidemic continues to pose a significant public health concern. Estimates from the Ministry of Health (2023) report more than 574,000 HIV cases and approximately 180,000 AIDS cases nationwide, with the highest increases observed among individuals of productive age. National surveillance data further indicate that HIV transmission is predominantly concentrated among key populations, including FSWs, their clients, Men who have Sex with Men (MSM), and injecting drug users. These patterns highlight persistent gaps in prevention efforts among populations that are socially and economically marginalized.

At the subnational level, South Sulawesi Province is recognized as one of the regions with the highest HIV prevalence in Eastern Indonesia. Data from the South Sulawesi Provincial Health Office in 2023 documented more than 2,000 newly identified HIV cases, with case concentrations observed in coastal areas, commercial centers, and regions characterized by high economic mobility. Within this provincial context, Jeneponto Regency has consistently reported increasing HIV cases over the past five years, underscoring its growing epidemiological significance.

Evidence from official media reports and Health Office publications indicates that HIV case detection in Jeneponto Regency has shown a fluctuating yet generally upward trend. Identified cases include sex workers, housewives, and individuals within productive age groups, suggesting the potential spread of HIV beyond traditional high-risk populations. Further analysis of reported data from 2021 to 2024 reveals that although annual case numbers fluctuated, they remained relatively high for a regency-level area. The highest number of cases was recorded in 2022, ranging from 80 to 104 cases depending on reporting sources, followed by a modest decline to 71 cases in 2023 and 61 cases in 2024.

Despite the implementation of various government-led HIV prevention initiatives such as HIV education programs, condom distribution, and Voluntary Counselling and Testing (VCT) services sex workers continue to encounter substantial barriers to effective HIV prevention. These barriers include pressure from clients to engage in unprotected sex, limited access to health services, unstable working conditions, pervasive social stigma, and low levels of self-efficacy. Consequently, a nuanced understanding of HIV preventive behaviors among sex workers necessitates the application of a comprehensive theoretical framework capable of integrating psychological, social, and structural determinants of health behavior.

The *Health Belief Model* (HBM) is a health behavior theory that posits individual decisions to engage in preventive actions are shaped by several key perceptions, including perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action, and self-efficacy. This model has been extensively applied to examine HIV preventive behaviors across diverse populations, including Female Sex Workers (FSWs) in various Indonesian settings such as Kupang, Medan, Bandung, and government-assisted or designated intervention areas (Bire et al., 2017; Mandayani & Hidayat, 2019; Putri et al., 2019; Febriyanti, 2021).

However, most of these studies rely on quantitative methods and therefore do not fully capture the complex social and psychological dynamics experienced by non-localized FSWs

working in rural or semi-urban areas. As a result, the understanding of their perceptions, lived experiences, and structural barriers remains limited.

A review of the literature identifies several gaps:

1. HBM-based studies on FSWs are mostly quantitative and fail to capture subjective experiences and power dynamics between FSWs and clients.
2. No comprehensive SSLR exists that maps HIV-preventive behaviors among FSWs based on all six HBM constructs.
3. Non-localized FSWs in rural–semi-urban regions such as Jeneponto are understudied despite facing higher risk.
4. Structural barriers such as stigma, limited VCT access, and socioeconomic challenges lack integrated analysis in previous literature.

This study aims to conduct a Systematic Student Literature Review (SSLR) to synthesize and analyze existing research on HIV/AIDS prevention and management among Female Sex Workers (FSWs) from the perspective of the Health Belief Model (HBM). Specifically, this study seeks to:

1. Identify and map HIV/AIDS preventive behaviors among FSWs as reported in the literature published between 2015 and 2024.
2. Analyze psychosocial factors influencing HIV/AIDS preventive behaviors among FSWs based on the six constructs of the Health Belief Model, namely perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action, and self-efficacy.
3. Examine structural, social, and economic barriers affecting the effectiveness of HIV/AIDS prevention efforts among FSWs, particularly non-localized FSWs operating in rural and semi-urban settings.

Formulate evidence-based recommendations for HIV/AIDS prevention interventions grounded in the Health Belief Model and contextualized to the sociocultural and economic conditions of FSWs in Indonesia.

2. METHODS

This study employed a Systematic Student Literature Review (SSLR) approach, a simplified adaptation of systematic review methodology designed for academic settings while still adhering to the core principles of transparency, replicability, and methodological rigor. SSLR is particularly suitable for student researchers because it allows structured synthesis of scientific evidence without requiring the full complexity of advanced systematic review tools such as PROSPERO registration or RCT appraisal instruments. Nonetheless, this review maintained the essential systematic review stages, including identification, screening, eligibility assessment, and final inclusion.

Systematic review tailored for student researchers while maintaining core PRISMA principles. SSLR aims to provide a structured, reproducible synthesis of empirical studies with

moderate complexity suitable for academic This study employed a Systematic Student Literature Review (SSLR), a simplified form of a coursework. The SSLR design was selected to allow a comprehensive yet manageable synthesis of literature related to HIV/AIDS prevention among Female Sex Workers (FSWs) through the lens of the Health Belief Model (HBM). This design emphasizes clarity in search strategies, criteria for inclusion, and thematic synthesis. By using SSLR, the review can bridge the gap between high-level systematic reviews and narrative literature reviews, offering a balance between depth and feasibility.

A systematic and structured literature search was conducted across four major academic sources: Google Scholar, PubMed, the Directory of Open Access Journals (DOAJ), and SINTA. These sources were chosen because they offer a combination of international peer-reviewed publications (PubMed, DOAJ) and regionally relevant scientific literature (Google Scholar, SINTA), which is critical for a topic that involves both global and Indonesian contexts. Search strings were generated using Boolean operators to maximize retrieval of relevant studies. For example, combinations such as "HIV AND sex workers AND HBM" and "Pekerja Seks Komersial AND Health Belief Model" ensured representation of both English and Indonesian publications. Additional keywords related to condom use, VCT uptake, risk perception, and FSW behavior were included to avoid missing eligible studies. The search was restricted to the period 2015–2024 to ensure contemporary relevance, especially considering rapid changes in HIV epidemiology and intervention strategies. Literature searches were conducted across the following databases and repositories:

a) Google Scholar
b) PubMed
c) Directory of Open Access Journals (DOAJ)
d) SINTA (Science and Technology Index)

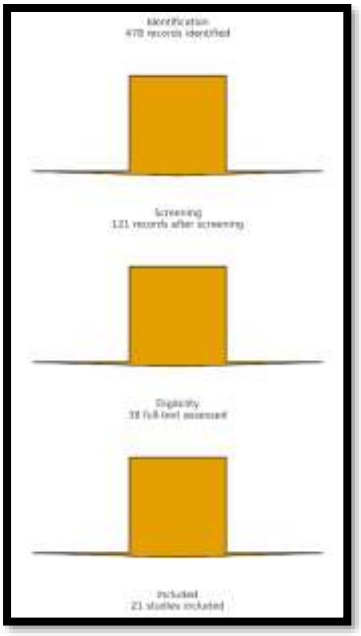
The search used Boolean keyword combinations, including but not limited to:

a) "HIV AND sex workers and HBM"
b) " female sex workers and Health Belief Model"
c) "HIV prevention AND female sex workers"
d) "HBM AND condom use AND Indonesia"

The search was limited to publications dated 2015–2024.

Articles were included if they met all of the following criteria:

a. Empirical research articles (primary studies).
b. Focused on Female Sex Workers (FSWs) or other key populations relevant to HIV transmission.
c. Employed the Health Belief Model (HBM) either fully or partially as a theoretical frame.
d. Published in Indonesian or English.
e. Full text was available.



Articles were excluded for any of the following reasons:

a. Opinion pieces, editorials, or non-empirical commentary.
b. Studies that did not employ HBM.
c. Studies focusing on populations other than FSWs or relevant key populations.
d. Publications dated before 2015.

The selection process followed a simplified PRISMA flow adapted for SSLR:

a. Identification (initial search): 478 articles identified.
b. Screening (title & abstract): 121 articles retained after initial screening.
c. Eligibility (full-text assessment): 38 full-text articles examined.
d. Inclusion: 21 articles met the inclusion criteria and were included in the review.

Data extraction focused on study characteristics (author, year, setting, population, study design), Data extraction was guided by a standardized matrix capturing each study's authorship, publication year, geographical location, study population, methodology, and the specific HBM constructs addressed. Thematic synthesis was conducted using the six core constructs of the HBM: perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action, and self-efficacy.

Each article was coded according to the presence and depth of discussion on these constructs. Themes were then compared across studies to identify convergence, divergence, and contextual variations, especially between localized and non-localized FSW settings. Additional notes were taken regarding structural, economic, and sociocultural factors that influenced HIV-preventive behaviors, allowing for a more nuanced interpretation beyond individual-level psychological determinants.

Although SSLR does not require a formal risk-of-bias tool, the studies were qualitatively appraised for clarity of methods, sample adequacy, and theoretical alignment. Sensitivity to ethical considerations particularly in researching marginalized populations was also noted.

3. RESULTS AND DISCUSSION

This section provides an integrated thematic synthesis and analytical discussion of the findings from the 21 studies included in this Systematic Student Literature Review (SSLR). Using the Health Belief Model (HBM) as the conceptual framework, the analysis focuses on six primary constructs—perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action, and self-efficacy. Because these constructs are deeply interconnected in shaping HIV-prevention behaviors among Female Sex Workers (FSWs), especially non-localized FSWs in rural and semi-urban settings, the presentation of results and discussion is merged into a comprehensive narrative. This integrated approach enables a more cohesive examination of how individual psychological perceptions interface with structural, cultural, and economic realities that influence HIV-related behaviors.

1. Perceived Susceptibility: Normalization of Risk and Relational Vulnerability

The thematic synthesis indicates that perceived susceptibility to HIV among Female Sex Workers (FSWs) remains predominantly low to moderate, even though this group is epidemiologically recognized as having a high risk of HIV infection. While most FSWs possess a basic awareness of HIV as a health threat, this awareness does not consistently translate into a personal sense of vulnerability (Hapsari, 2021). HIV is often perceived as a distant, abstract, or conditional risk rather than an immediate and individualized danger. This disjunction between epidemiological risk and perceived personal susceptibility is shaped by multiple intersecting psychosocial, relational, and structural factors (Aji, 2022)

1.1 The Illusion of Safety with Regular Clients

One of the most prominent patterns emerging from the reviewed studies is the construction of a perceived "safe zone" with regular or long-term clients (Barus, 2017). FSWs frequently differentiate clients into categories of "risky" and "non-risky," with regular clients positioned in the latter group. This perceived safety is not grounded in biomedical evidence or consistent condom use, but rather in relational familiarity, emotional bonding, repeated interactions, and economic reliance (Bire, 2018).

The belief that familiarity equates to safety reflects a relational distortion of risk perception, whereby emotional trust overrides rational health considerations (Budi, 2019). Regular clients are often redefined as quasi-intimate partners or "boyfriends," leading to intentional decisions to forgo condoms as a symbol of trust, loyalty, or relational stability. In this context, HIV risk is cognitively acknowledged but emotionally discounted, demonstrating how affective and economic motivations overshadow preventive reasoning (Budi, 2019).

1.2 Normalization of Occupational Risk

Low perceived susceptibility is further reinforced by the normalization of HIV risk as an inherent part of sex work. Many FSWs conceptualize HIV and other sexually transmitted infections

not as preventable outcomes but as unavoidable occupational hazards (Bire, 2018). This perception is shaped through prolonged exposure to high-risk environments and the observation of peers who continue working despite visible illness or declining health.

Such exposure fosters a sense of fatalism, where infection is perceived as a matter of chance rather than agency. This normalization is particularly pronounced among non-localized FSWs, who often operate outside formalized work settings and lack access to structured health interventions, peer education, or routine screening services commonly available in brothel-based systems (Hapsari, 2021). Consequently, the absence of institutional support contributes to weakened risk awareness and reinforces complacency toward HIV susceptibility. (Hapsari, 2021).

1.3 Situational Risk Perception

Rather than adopting a consistent and universal risk framework, FSWs often engage in situational and subjective risk assessments. Risk is evaluated based on superficial client characteristics such as physical appearance, cleanliness, social status, or perceived respectability (Liu, 2022). Clients described as "clean," "well dressed," "educated," or "polite" are frequently assumed to be low risk, despite the absence of objective health information (Hasibuan, 2020).

This reliance on visual and behavioral heuristics highlights the gap between biomedical knowledge and lived decision making processes. Situational risk perception increases vulnerability by fostering inconsistent condom use and reinforcing false assumptions about who can or cannot carry HIV (Sari, 2020).

1.4 Misconceptions About Transmission

Persistent misconceptions regarding HIV transmission and prevention further weaken perceived susceptibility (Sari, 2020). Beliefs that practices such as washing genitals after intercourse, using traditional herbs, or choosing certain sexual positions can prevent infection indicate limited health literacy and incomplete exposure to accurate HIV education (Febriyanti, 2021). These misunderstandings create a false sense of control, leading FSWs to overestimate the effectiveness of ineffective or unproven preventive behaviors (Febriyanti, 2021).

1.5 Low Perceived Susceptibility as a Coping Strategy

For some FSWs, minimizing perceived susceptibility functions as a psychological coping mechanism (Wassihun, 2024). Given the intensity of stigma, poverty, and gendered power disparities, acknowledging high susceptibility may be emotionally overwhelming. Thus, low perceived susceptibility often merges with emotional self-protection (Rahmad, 2018).

Collectively, these factors reveal that low perceived susceptibility is a complex interplay of relational dynamics, normalized occupational risk, cognitive biases, and limited access to accurate information (Putri, 2019). Interventions targeting susceptibility must therefore extend beyond education and address the emotional and structural contexts in which risk perception is formed.

2. Perceived Severity: Economic Precarity Versus Long-Term Health Threat

The synthesis demonstrates that perceived severity of HIV among Female Sex Workers (FSWs) is highly heterogeneous, ranging from intense fear of illness and death to normalization and minimization of the disease's long-term consequences (Solomon, 2019). While HIV is

generally recognized as a serious condition, its perceived severity is frequently reframed through the lens of economic precarity, stigma, and incomplete understanding of treatment realities (Mallick, 2020). As a result, the perceived seriousness of HIV often fails to generate sustained preventive action.

2.1 Competing Priorities: Immediate Economic Necessity

For many FSWs, immediate economic survival takes precedence over long-term health risks (Mallick, 2020). Daily concerns such as securing income, supporting dependents, paying rent, or meeting basic needs are perceived as more urgent and severe than the potential future consequences of HIV infection (Hapsari, 2021).

The possibility of losing clients due to condom insistence or frequent clinic visits is viewed as an immediate threat with tangible consequences, whereas HIV infection is often perceived as a delayed outcome that may or may not occur. This temporal distancing reframes HIV severity within a survivalist framework, where long-term health threats are deprioritized in favor of short-term economic stability (Mallick, 2020).

2.2 Misinterpretation of ART Availability

The increasing availability of antiretroviral therapy (ART) has unintentionally contributed to a reduction in perceived severity of HIV. Some FSWs interpret ART as a definitive cure rather than a lifelong treatment, leading to the belief that HIV is manageable without significant consequences (Nurhayati, 2017). This misinterpretation obscures the realities of lifelong medication adherence, side effects, periodic monitoring, and the risk of treatment failure. As a result, HIV is perceived as less threatening, diminishing the urgency to consistently engage in preventive behaviors such as condom use or routine HIV testing.

2.3 Emotional Avoidance Due to Stigma

Perceived severity is also profoundly shaped by anticipated stigma and social exclusion. For many FSWs, the social consequences of an HIV-positive diagnosis such as rejection by family, loss of clients, discrimination within healthcare settings, and social labeling are perceived as more devastating than the biomedical effects of the disease itself (Khan, 2020). This stigma-driven fear leads to emotional avoidance, whereby individuals deliberately minimize or suppress thoughts about HIV severity to protect themselves from psychological distress. Consequently, avoidance reduces motivation to seek testing or adopt protective behaviors, reinforcing vulnerability (Febriyanti, 2021).

2.4 Limited Understanding of Clinical Progression

Several studies highlight a limited understanding of HIV's long-term clinical progression among FSWs (Glanz, 2015). While the disease is recognized in abstract terms, detailed knowledge regarding opportunistic infections, chronic immune suppression, comorbidities, and the lifelong nature of treatment is often lacking.

Without a clear understanding of these medical realities, perceived severity remains superficial and fails to evoke a sense of urgency. In summary, although HIV is acknowledged as a serious illness, its perceived severity is diluted by economic pressures, stigma-related avoidance,

and incomplete comprehension of treatment and disease progression, as a result, high perceived severity does not consistently translate into preventive behavior (Aji, 2022)

3. Perceived Benefits: Knowledge Without Behavioral Translation

Across the reviewed studies, most FSWs demonstrate adequate cognitive awareness of the benefits associated with HIV preventive behaviors, including condom use, Voluntary Counseling and Testing (VCT), and early treatment initiation (Rosdiana, 2021). However, this awareness frequently remains theoretical rather than actionable, revealing a disconnect between knowledge and consistent behavioral adoption.

3.1 Benefits Recognized but Not Internalized

FSWs are generally able to articulate the protective benefits of condoms in preventing HIV, other sexually transmitted infections, and unintended pregnancies. Nevertheless, the internalization of these benefits is often weak (Nurhayati, 2017). In real-world encounters, the perceived value of condom use diminishes in the face of client resistance, financial incentives, or fear of interpersonal conflict. This indicates that while benefits are cognitively acknowledged, they lack sufficient emotional or economic salience to override competing pressures (Mallick, 2020).

3.2 Benefits of VCT Undermined by Social Barriers

Although FSWs recognize the importance of early HIV diagnosis through VCT services, many actively avoid testing due to fear of stigma, breaches of confidentiality, and discriminatory treatment by healthcare providers. In this context, the perceived social and emotional risks of testing outweigh its health benefits. This dynamic illustrates that perceived benefits are not evaluated solely in medical terms, but also through social and psychological cost–benefit assessments (Rosdiana, 2021).

3.3 Long-Term Health Benefits Versus Short-Term Economic Gains

Clients sometimes offer higher payment for unprotected sex, making the immediate financial benefit more tangible than the long-term health benefit of condom use (Sari, 2020). This demonstrates that perceived benefits of prevention cannot compete with daily survival needs without structural support.

3.4 Weak Institutional Reinforcement

Preventive behaviors lack reinforcement from institutional systems, such as reliable condom supplies or supportive clinical environments. Without consistent reinforcement, perceived benefits are insufficient to motivate behavioral change.

The mismatch between cognitive awareness and behavioral adoption indicates that addressing awareness alone is inadequate; interventions must also increase the emotional, social, and economic value of preventive behavior.

4. Perceived Barriers: The Dominant Determinant

Perceived barriers are the most prominent construct influencing preventive behavior. Barriers are multifaceted and exist at personal, interpersonal, structural, and sociocultural levels.

4.1 Personal Barriers

These include embarrassment discussing condoms, fear of client rejection, lack of confidence, and emotional exhaustion. Trauma histories also diminish assertiveness and willingness to negotiate safer sex.

4.2 Interpersonal Barriers: Client Resistance

Client refusal to use condoms is the most cited barrier. Resistance may include bargaining, threats, emotional manipulation, or physical violence. Because clients hold economic and gendered power, FSWs often lack the leverage needed to insist on condom use.

4.3 Structural Barriers

Structural barriers significantly shape HIV-prevention behaviors:

a) Limited access to condoms in rural regions

b) Discriminatory attitudes among healthcare workers

c) Inconsistent or unavailable VCT services

d) Absence of supportive local policies

e) Workplace instability characteristic of non-localized sex work

These factors severely restrict FSWs' ability to act on their knowledge and motivation.

4.4 Sociocultural Barriers

Deep-seated stigma against sex work leads FSWs to avoid health facilities for fear of recognition or judgment. This stigma fosters secrecy, isolation, and reluctance to seek prevention services. Given their strength, perceived barriers must be the central target of intervention design. Without reducing these barriers, other HBM constructs cannot function effectively.

5. Cues to Action: Weak External Triggers in Informal Settings

Across the synthesized studies, cues to action triggers that initiate health behavior are notably weak.

5.1 Lack of Outreach Services

Non-localized FSWs rarely receive outreach from NGOs or health workers. Informal venues such as karaoke bars, cafés, and street-based locations remain largely unpenetrated by health programs.

5.2 Minimal Visibility of Health Information

Few educational materials or condom promotion posters are available in FSW work environments. This absence weakens environmental reinforcement of preventive behavior.

5.3 Inconsistency of Health Programs

Health education is sporadic, not systematically scheduled, and not tailored to FSWs' mobility patterns. As a result, cues to action do not accumulate into sustained behavior change.

5.4 Lack of Institutional Cues

Indonesia lacks a national-level "100% Condom Program" like Thailand's, meaning institutional cues are absent at the policy level. Weak cues to action contribute to inconsistent preventive behavior even among FSWs who possess knowledge and motivation.

6. Self-Efficacy: The Foundation of Behavioral Agency

Self-efficacy among FSWs is low across all studies. This limits their capacity to negotiate condom use, access services, or make autonomous decisions regarding their health.

6.1 Negotiation Challenges

FSWs frequently lack confidence to insist on condom use due to client resistance, fear of violence, or risk of losing income.

6.2 Psychological Consequences of Trauma

Histories of violence and coercion weaken psychological agency. Low self-esteem further reduces the ability to assert boundaries.

6.3 Economic Dependency

Dependence on clients for financial survival reduces negotiating power. For many FSWs, refusal is not a viable option.

6.4 Limited Empowerment Programs

Few empowerment programs exist in rural and semi-urban areas. Where such programs exist, FSWs show higher self-efficacy, indicating a strong link between empowerment and preventive behavior. Low self-efficacy undermines all other HBM constructs, making it one of the most critical areas to strengthen through intervention.

7. Integrated Interpretation of HBM Constructs

The findings indicate that HIV related behaviors among Female Sex Workers (FSWs) cannot be adequately explained by examining individual Health Belief Model (HBM) constructs in isolation. Instead, preventive and risk behaviors emerge from the dynamic interaction among multiple HBM components operating within a broader context of structural vulnerability. For instance, low perceived susceptibility combined with high perceived barriers such as client pressure, economic dependence, and limited access to services tends to result in sustained high risk behaviors, including inconsistent condom use.

Similarly, even when perceived severity of HIV is high, the absence of strong cues to action, such as supportive outreach, peer encouragement, or accessible testing services, often leads to emotional avoidance rather than proactive prevention. In other cases, FSWs may recognize the benefits of HIV preventive measures, yet low self efficacy limits their ability to negotiate condom use, resulting in passive compliance with client demands. These patterns demonstrate that while the HBM provides a valuable conceptual framework for understanding individual perceptions, it is insufficient when applied without consideration of the broader socio structural determinants shaping decision-making. Therefore, the model must be expanded to incorporate factors such as

poverty, gendered power imbalances, pervasive stigma, and inequitable access to health services, which collectively mediate how health beliefs are translated into behavior.

8. Implications for Intervention

Findings suggest the need for multilevel interventions:

a) Individual level: cognitive reframing, negotiation training

b) Interpersonal level: peer educator networks

c) Structural level: stigma-free clinics, mobile VCT, guaranteed condom supply

d) Policy level: community-supported condom programs

e) Economic level: livelihood support to reduce dependence on risky clients

Only interventions that address both psychological and structural realities can produce sustainable behavioral change.

4. CONCLUSION

This review demonstrates that HIV/AIDS prevention among Female Sex Workers (FSWs)particularly non-localized FSWs working in rural and semi-urban areas is shaped by a complex interplay of psychological, social, structural, and economic determinants. Using the Health Belief Model (HBM) as the analytical framework, the findings reveal that individual perceptions alone are insufficient to explain or predict preventive behavior among FSWs. Instead, each HBM construct interacts with broader structural realities that severely constrain women's ability to adopt consistent HIV-preventive practices.

Perceived susceptibility among FSWs is generally low, driven by the normalization of occupational risk, misconceptions about transmission, and a false sense of safety with regular clients. Perceived severity varies considerably; while many FSWs understand HIV as a serious illness, their daily economic vulnerability reduces the perceived importance of long-term health risks. Perceived benefits of condom use and VCT are acknowledged cognitively, yet these benefits rarely outweigh economic pressures, fear of losing clients, or concerns about stigma.

Perceived barriers constitute the most powerful determinant in shaping behavior. These barriers ranging from client resistance and gendered power imbalances to structural discrimination in healthcare and limited access to preventive servicesres trict the feasibility of safer practices even among FSWs who possess adequate knowledge. Weak cues to action, characterized by insufficient outreach, limited visibility of health information, and inconsistent preventive programming, further diminish the likelihood of behavior change. Low self-efficacy, exacerbated by trauma histories, economic dependency, and social marginalization, reinforces these challenges and significantly limits women's capacity to negotiate condom use or seek health services.

Overall, the synthesis suggests that interventions grounded solely in cognitive-behavioral models, including HBM, will be insufficient unless accompanied by structural reforms that address economic precarity, violence, healthcare discrimination, and sociocultural stigma. Effective HIV

prevention for FSWs must therefore integrate behavioral, structural, and empowerment-oriented strategies. Only by acknowledging and addressing the multilayered vulnerabilities faced by FSWs can prevention programs achieve meaningful and sustainable impact.

REFERENCES

Aji, W. B., & Rahmawati, Y. (2022). Pengaruh dukungan komunitas terhadap perilaku pencegahan HIV di kalangan PSK. *Jurnal Kesehatan Komunitas, 8*(1), 51–63.

Barus, A. (2017). Faktor risiko perilaku seksual berisiko pada pekerja seks komersial di Indonesia. *Jurnal Kesehatan Masyarakat, 13*(1), 55–64.

Bire Logo, Y., & Andryanus. (2018). Persepsi pekerja seks komersial terhadap penggunaan kondom ditinjau dari Health Belief Model di Kupang. *Jurnal Kesehatan Reproduksi, 9*(2), 101–112.

Budi, S. H. (2019). Determinan perilaku penggunaan kondom pada PSK non-lokalisasi. *Jurnal Kesehatan Masyarakat Nasional, 14*(2), 75–85.

Febriyanti, E. (2021). Faktor-faktor yang memengaruhi pencegahan HIV/AIDS ditinjau dari Health Belief Model pada mahasiswa keperawatan. *Jurnal Kesehatan, 8*(2), 101–108.

Glanz, K., Rimer, B. K., & Viswanath, K. (2015). *Health behavior: Theory, research, and practice* (5th ed.). Jossey-Bass.

Hasibuan, M. (2020). Efikasi diri dan keterampilan negosiasi kondom pada PSK. *Journal of Behavioral Health, 5*(1), 45–52.

Hapsari, R., & Pratiwi, A. (2021). Faktor psikososial yang memengaruhi perilaku seksual berisiko pada PSK. *Jurnal Keperawatan Soedirman, 16*(2), 107–120.

Kementerian Kesehatan Republik Indonesia. (2023). *Laporan Perkembangan HIV/AIDS dan PIMS di Indonesia*. Direktorat P2ML.

Khan, M. A., & Patel, S. (2020). Health beliefs and HIV prevention among sex workers in South Asia. *International Journal of Public Health Research, 18*(4), 211–224.

Liu, S. (2022). Condom negotiation behaviors among female sex workers in rural Southeast Asia. *AIDS Care, 34*(7), 915–925.

Luthfil, M. (2024). Hambatan akses layanan HIV/AIDS pada PSK non-lokalisasi: Pendekatan perilaku kesehatan. *Jurnal Promosi Kesehatan Indonesia, 19*(1), 55–67.

Mallick, R., & Li, Y. (2020). Power dynamics, economic vulnerability, and HIV risk among sex workers. *Global Health Journal, 14*(3), 112–119.

Mandayani, N., & Hidayat, R. (2019). Health Belief Model dan perilaku pencegahan HIV pada penghuni Lapas perempuan. *Jurnal Kesehatan, 10*(1), 45–53.

Nurhayati, S. (2017). Perilaku pencarian pelayanan HIV pada PSK migran. *Jurnal Ilmu Kesehatan Masyarakat, 6*(2), 121–130.

Putri, A. P., Lestari, W., & Nugraha, R. (2019). Persepsi risiko HIV dan perilaku kesehatan reproduksi pada wanita usia subur penerima ARV. *Media Penelitian dan Pengembangan Kesehatan, 29*(4), 257–268.

Rahmad, F., & Yulita, A. (2018). Pencegahan HIV/AIDS pada pekerja seks melalui pendekatan dukungan sebaya. *Jurnal Promosi Kesehatan, 10*(1), 33–41.

Rosdiana, M., & Idrus, F. (2021). Hambatan struktural terhadap layanan VCT pada PSK di daerah terpencil. *Jurnal Kebijakan Kesehatan Indonesia, 15*(1), 43–56.

Sari, D. P., & Nugroho, A. (2020). Perilaku penggunaan kondom pada PSK berdasarkan teori HBM di Jawa Timur. *Jurnal Epidemiologi Kesehatan Indonesia, 4*(3), 221–230.

Solomon, T., & Abebe, Z. (2019). Structural barriers to HIV prevention among sex workers: A systematic review. *African Journal of Reproductive Health, 23*(4), 92–104.

UNAIDS. (2021–2023). *Global HIV & AIDS statistics — Fact sheet*. UNAIDS.

Wassihun, L. (2024). Self-efficacy and condom use among female sex workers in East Africa. *International Journal of AIDS Research, 12*(1), 15–27.

World Health Organization. (2021–2023). *Global HIV surveillance report*. WHO Press.