

SELF-EFFICACY AND FEELING OF SECURITY ASSOCIATED WITH RISKY SEXUAL BEHAVIOR AMONG COMMERCIAL SEX WORKERS LIVING WITH HIV

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Abstract

Commercial sex workers (CSWs) represent a key population for HIV transmission. CSWs continue to thrive because of the development of the tourism sector and the acceptance of communities. This study aimed to identify the factors associated with risky sexual behavior among CSWs living with HIV. A cross-sectional design was adopted. The sample size was set to 80 CSWs living with HIV in the Special Region of Yogyakarta and Central Java. Chi-square and multiple logistic regression were used in the data analysis. Results showed the significant relationship of self-efficacy ($p < 0.001$; OR = 9.365) and feeling secure ($p = 0.033$; OR = 2.762) with risky sexual behavior. No significant relationship was noted between income ($p = 0.244$), knowledge ($p = 0.110$), attitude ($p = 0.978$), drug use ($p = 0.150$), alcohol consumption ($p = 0.642$), and sexual violence ($p = 0.968$) and risky sexual behavior. Nursing practices are expected to focus on promotive and preventative efforts by involving communities in enhancing the feeling of security and self-efficacy of CSWs through health programs and improvement of health facilities.

Keywords: commercial sex workers, HIV, sexual risk behavior

Abstrak

Efikasi Diri dan Perasaan Aman Berhubungan dengan Perilaku Seksual Berisiko pada Pekerja Seks Komersial dengan HIV. Pekerja Seks Komersial (PSK) menjadi populasi kunci penularan HIV. Perkembangan sektor pariwisata dan penerimaan masyarakat menjadikan PSK tetap bertahan. Penelitian ini bertujuan mengidentifikasi faktor-faktor yang memengaruhi perilaku seksual berisiko pada PSK dengan HIV positif. Desain penelitian ini adalah cross-sectional dengan jumlah sampel 80 Orang Dengan HIV AIDS (ODHA) PSK di Daerah Istimewa Yogyakarta dan Jawa Tengah. Analisis data menggunakan Chi-Square dan regresi logistik ganda. Hasil penelitian menunjukkan adanya hubungan yang signifikan antara efikasi diri ($p < 0,001$; OR = 9,365) dan perasaan aman ($p = 0,033$; OR = 2,762) dengan perilaku seksual berisiko. Tidak terdapat hubungan yang signifikan antara penghasilan ($p = 0,244$), pengetahuan ($p = 0,110$), sikap ($p = 0,978$), pemakaian narkoba ($p = 0,150$), konsumsi alkohol ($p = 0,642$), dan kekerasan seksual ($p = 0,968$) dengan perilaku seksual berisiko. Pelayanan keperawatan diharapkan lebih berfokus pada upaya promotif dan preventif dengan melibatkan masyarakat dalam meningkatkan rasa aman dan efikasi diri PSK melalui program-program kesehatan dan peningkatan fasilitas kesehatan.

Kata Kunci: HIV, pekerja seks komersial, perilaku seksual berisiko

Introduction

As of 2015, the number of people living with HIV in the world was 36.7 million, and the mortality rate was 1.1 million (WHO, 2016b). Nearly 2.1 million of them were new cases (around 5,700 cases per day) (UNAIDS, 2016). As of 2016, Indonesia documented 14,693 de-

aths due to HIV and AIDS. HIV and AIDS cases in the Special Region of Yogyakarta (DIY) and Central Java continue to increase every year. DIY is one of the top 10 provinces with the highest number of AIDS cases per 100,000 people (AIDS case rate) while Central Java ranks fifth in terms of the cumulative number of HIV and AIDS cases in Indonesia (The Ministry of

Health Republic of Indonesia, 2017).

Commercial sex workers (CSWs) represent a key population for HIV transmission through sex (WHO, 2016a). Today, the cumulative number of CSWs living with AIDS in Indonesia ranks seventh among the total population of people living with AIDS in the country (The Ministry of Health Republic of Indonesia, 2017). Social vulnerability and various factors related to their occupation make CSWs a high risk group for HIV transmission (Baral et al., 2012; Decker et al., 2010; Scorgie et al., 2012; Wang et al., 2009).

Several studies performed in Indonesia revealed that condom usage among CSWs is still low. A study by Safika, Levy, and Johnson (2013) in Lombok indicated that only around 39% of female CSWs use condoms. In Semarang, Central Java, 41% of CSWs rarely use condoms when servicing customers (Susanti & Nirmasari, 2015).

The development of the tourism sector in DIY and Central Java, along with the construction of hotels and nightclubs, contributes to increased commercial sex practices (Lokollo, 2009). Moreover, certain areas in Java are known to recruit and provide female sex workers for sexual services. In Central Java, commercial sex work is an acceptable profession for women. Moreover, commercial sex worker is not considered a crime (HIV and AIDS Data Hub for Asia-Pacific, 2010). This wide acceptance contributes to the increase in HIV cases among CSWs.

Income (Gu et al., 2014; Zhang et al., 2013), knowledge (Bowen, Williams, Daniel, & Clayton, 2008; Mimiaga et al., 2009), attitude toward condom use (Catalan, Sherr, & Hedge, 2014; McDonough, 2012), self-usage (Jung, 2013), drug use (Brodbeck, Vilen, Bachmann, Znoj, & Alsaker, 2010; Yao et al., 2012), alcohol consumption (Bukenya et al., 2013), sexual assault (Mooney et al., 2013), and feeling of security (Erausquin, Reed, & Blankenship,

2016) are known factors that influence the risky sexual behavior of CSWs.

Jung (2013) studied 1,083 female CSWs. The research result showed that condom usage among female CSWs increases when they have high self-efficacy. The feeling of security of CSWs is related to the behavior of security officers and the acceptance of local communities and could affect CSWs' condom usage (Erausquin et al., 2016; Kerrigan, Telles, Torres, Overs, & Castle, 2008).

Numerous studies have explored CSWs in DIY and Central Java. However, the studies on CSWs living HIV are limited. The factors affecting risky sexual behavior among CSWs living with HIV should be determined to establish appropriate and effective prevention and intervention measures.

Methods

The present study used a cross-sectional research design with a sample of 80 CSWs living with HIV from the Peer Support Group (KDS) working area in Yogyakarta and Central Java. The study was performed on 19 May to 1 June 2017. The non-probability sampling technique with consecutive sampling was adopted.

The inclusion criteria were as follows: female CSW; diagnosed as HIV positive; >18 years old; was sexually active in the past month; showed good time, place, and spatial orientations; and provided consent to participate in the study. The exclusion criteria were impaired vision and hearing and illiteracy.

The data collection instrument was a respondent characteristic instrument covering average monthly income, drug use, alcohol consumption, and sexual assault. The knowledge questionnaire was the HIV Knowledge Questionnaire (HIV-KQ-18) with a reliability of 0.83 (Carey & Schroder, 2002). The attitude questionnaire was the Sexual Risks Scale-Attitudes Toward Condom Use (SRSA) questionnaire

(DeHart, & Birkimer, 1997) with a reliability of 0.90. The self-efficacy questionnaire was the Self-Efficacy for Negotiating Condom Use questionnaire (Rotheram-Borus et al., 1997) with a reliability of 0.87. The questionnaire for gauging the feeling of security was developed by the researchers through discussions with experts with a reliability of 0.86. The risky sexual behavior questionnaire was the Safe Sex Behavior Questionnaire with a reliability of 0.91.

Results

Respondent Characteristics. The research results showed that 42.5% of the respondents had an average monthly income < Rp1,500,000. Most respondents had never used drugs (90%). The most common drug use method was injection (5%). The most common drug used was heroin (3.8%) (Table 1).

A total of 46.3% of the respondents did not consume alcohol. Exactly 18.8% of the respondents who consumed alcohol reported drinking two shots and beer (22.5%). Moreover, 58.8% of the respondents were sexually assaulted by their customers (26.3%).

Chi-square was used in the data analysis to determine the relation of income, knowledge, attitude toward condom usage, self-efficacy, drug use, alcohol consumption, sexual assault, and feeling of security with risky sexual behavior. The logistic regression test was used to determine the factors with the greatest effect on risky sexual behavior related to HIV and AIDS.

Of the respondents, 55% had good knowledge, 56.3% had good attitude toward condom usage, 53.8% had high self-efficacy in negotiating condom usage, and 62.5% felt secure. Most respondents engaged in risky sexual behavior (51.2%).

Factors Affecting Risky Sexual Behavior. The frequency distributions of the respondents in engaging in risky sexual behavior related to HIV and AIDS are presented in Table 2. The

most common distributions were respondents with low income (58.8%), poor knowledge (61.1%), poor attitude (51.4%), and low self-efficacy (78.4%); those not using drugs (54.2%) and not consuming alcohol (54.1%); and those who had not experienced sexual assault (51.5%) and who felt insecure (66.7%).

The results of the bivariate analysis showed a significant relation ($p < 0.05$) between self-efficacy ($p < 0.001$; OR= 9.365) and risky sexual behavior. CSWs living with HIV who had low self-efficacy had 9.4 times higher chance of performing risky sexual behavior related to HIV and AIDS than CSWs living with HIV who had high self-efficacy.

The bivariate analysis also showed a significant relation ($p < 0.05$) between feeling of security ($p = 0.033$; OR= 2.762) and risky sexual behavior. CSWs living with HIV who felt insecure had 2.76 times higher chance of engaging in risky sexual behavior related to HIV and AIDS than CSWs living with HIV who felt secure.

Factors with the Greatest Effect on Risky Sexual Behavior. Multivariate analysis was conducted after identifying the determinants of the bivariate selection model and the final modeling. The results showed that self-efficacy ($p < 0.001$; OR= 9.662) had a significant relation with risky sexual behavior (Table 3).

The final modeling showed that CSWs living with HIV in DIY and Central Java who had low self-efficacy had 9.66 times higher chance of engaging in risky sexual behavior related to HIV and AIDS than CSWs living with HIV who had high self-efficacy after controlling for the factors of feeling of security and sexual assault (95% CI, OR= 3.201; 29.167).

The final model equation of the multivariate analysis is formulated as:

$$f(\mathbf{Z}) = \frac{1}{1 + e^{-(-1.495 + 2.268EF + 0.711AM + 0.465KS)}}$$

Table 1. Respondent Distribution in DIY and Central Java 2017

Category	Total	%
Income		
<1,500,000	34	42.5
1,500,000–3,000,000	31	38.8
3,000,000–5,000,000	15	18.8
Drug use		
Frequency of usage in the past year		
Never	72	90
<5 times	7	8.8
5–49 times	1	1.3
Usage method		
Injecting	4	5
Inhaling	3	3.8
Swallowing	2	2.5
Drug type		
Metamphetamines	2	2.5
Heroin	3	3.8
Cannabis	2	2.5
Marijuana	1	1.3
Roaches	1	1.3
Ecstasy	1	1.3
Alcohol consumption		
Frequency of consumption		
Never	37	46.3
≤ once a month	8	10
Once a week	22	27.5
Every day/nearly every day	13	16.3
Amount consumed		
1 shot	14	17.5
2 shots	15	18.8
>2 shots	14	17.5
Alcohol type		
Beer	18	22.5
Vodka	10	12.5
Red wine	5	6.3
Whiskey	7	8.8
Red label	4	5
Jack D	2	2.5
Sunrise	1	1.3
Sexual assault		
History of sexual assault		
Yes	47	58.8
No	33	41.3
Assaulter		
Regular partner	19	23.8
Customer	21	26.3
Others	10	12.5
Knowledge		
Good	44	55
Poor	36	45
Attitude on Condom Usage		
Good	45	56.3
Poor	35	43.8
Self-efficacy		
High	43	53.8
Low	37	46.3

Table 1. Respondent distribution in DIY and Central Java 2017 (Continous)

Category	Total	%
Feeling of Security		
Feeling secure	50	62.5
Feeling insecure	30	37.5
Risky Sexual Behavior		
Low	39	48.8
High	41	51.2

Table 2. Analysis of Relations Among Factors Affecting Risky Sexual Behavior related to HIV and AIDS of CSWs Living with HIV in DIY and Central Java in 2017

Variable	Risky Sexual Behavior				Total		OR	p
	Low		High		N	%		
	n	%	n	%				
Income								
Adequate ($\geq 1.500.000$)	25	54.3	21	45.7	46	100	1.701	0.244
Low ($< 1.500.000$)	14	41.2	20	58.8	34	100		
Knowledge								
Good	25	56.8	19	43.2	44	100	2.068	0.110
Poor	14	38.9	22	61.1	36	100		
Attitude on condom usage								
Good	22	48.9	23	51.1	45	100	1.013	0.978
Poor	17	48.6	18	51.4	35	100		
Self-efficacy								
High	31	72.1	12	27.9	43	100	9.365	0.000*
Low	8	21.6	29	78.4	37	100		
Drug usage								
Non-user	33	45.8	39	54.2	72	100	0.282	0.150
User	6	75	2	25	8	100		
Alcohol consumption								
Non-consuming	17	45.9	20	54.1	37	100	0.811	0.642
Consuming	22	51.2	21	48.8	43	100		
Sexual assault								
No	16	48.5	17	51.5	33	100	0.982	0.968
Yes	23	48.9	24	51.1	47	100		
Feeling of security								
Feeling secure	29	58	21	42	50	100	2.762	0.033*
Feeling insecure	10	33.3	20	66.7	30	100		

Note: *significant ($p < 0.05$)

Table 3. Results of Final Modeling of Variables Affecting Risky Sexual Behavior related to HIV and AIDS in DIY and Central Java in 2017

Variable	B	p	OR
Self-efficacy	2.268	0.000	9.662
Feeling of security	0.711	0.198	2.036
Sexual assault	0.465	0.413	1.592
Constant	-1.495		

Modeling showed that CSWs living with HIV who had low self-efficacy, felt insecure, and were sexually assaulted had 87.5% risk of engaging in risky sexual behavior.

Discussion

The research result showed a relation between self-efficacy and risky sexual behavior. The result was consistent with the study of Zhang et al. (2015), who found that the high self-efficacy of female CSWs has a significant relation with the consistency of condom usage with their regular partners. A study by Markosyan et al. (2007) also revealed that the high frequency of condom usage by regular partners and irregular partners is related to the high self-efficacy of female CSWs.

Self-efficacy affects one's behavior. Self-efficacy is necessary to negotiate safe sex with partners (Catalan et al., 2014; Mcdonough, 2012). High self-efficacy encourages one to try to engage in a certain behavior. The higher the self-efficacy for condom usage is, the higher the effort to maintain condom usage is; the latter includes persuading one's partner to wear a condom (Brodbeck et al., 2010). CSWs who have high self-efficacy for condom usage maintain good communication with their partners and are able to control their emotions during sex. Moreover, CSWs can confidently persuade their partners (regular partners and customers) to wear condoms (Zhang et al., 2015).

The research result showed a relation between feeling of security and risky sexual behavior. CSWs living with HIV reported gaining a feeling of security from their interactions with the community. Kerrigan et al. (2008) attempted to adopt Sanogachi's model in India, a project to reduce HIV transmission through community-based social approach, in the context of Brazil. The result showed that social cohesion and social involvement affect consistent condom usage among CSWs and their customers. Good social integration and close personal relations enable one to receive strong social and psycho-

logical support (Bunde, 2012). Social interaction also has a significant impact on one's perception, decision-making process, and behavior (Bunde, 2012). Good social interaction between CSWs living with HIV and the local community resulting in a strong feeling of security could affect the perception of CSWs living with HIV toward the importance of maintaining socially acceptable behaviors, including safe sex practice.

The result of the current work showed no significant relation between income and risky sexual behavior. This result was different from that of Gu et al. (2014), who found that female CSWs who have high monthly incomes are consistent in using condoms with their partners. In their work, a high monthly income did not guarantee that CSWs living with HIV had safe sex. Strong customer influence, concern about losing customers, and being forced (Tucker et al., 2012) can explain why CSWs living with HIV who earn high income still choose to engage in risky sexual behavior. Customers are often willing to pay double or triple for CSWs to have unsafe sex with them (Swanson, 2010). Furthermore, customers under the influence of alcohol make the use of condoms difficult for high-class CSWs (Choi & Holroyd, 2007).

The research result also showed no relation between knowledge and risky sexual behavior. According to the information–motivation–behavioral skills (IMB) model, behavior is affected by information, motivation, and behavioral skills (Walsh, Senn, Scott-sheldon, Peter, & Carey, 2011). In the present study, many respondents did have good knowledge, but such knowledge was not accompanied by motivation to change behavior and was not supported by the skill needed to perform the behavior; hence, the expected behavior, i.e., safe sex, was not achieved. Moreover, no relation between attitude and risky sexual behavior was observed. The result was different from that of a previous study by Susanti and Nirmasari (2015) on the attitude of female CSWs toward HIV prevention related to condom usage.

The theory of planned behavior emphasizes that apart from attitude, other factors influence someone to perform a behavior. The factors are social factor and self-awareness on behavioral control (Faimau, Maunganidze, Tapera, Mosomane, & Apau, 2016). Boileau, Rashed, Sylla, and Zunzunegui (2008) stated that sociocultural factors and religious norms could affect one's desire to engage in a behavior.

The research result of the current work showed no relation between alcohol consumption and risky sexual behavior. The result was different from that of the study by Markosyan et al. (2007), who found that the high frequency of condom usage by the regular partners and irregular partners of female CSWs is related to low alcohol consumption before sex. The result of the current work did not support the theory that alcohol consumption is related to the lack of self-control on sexual behavior (Catalan et al., 2014). Among the alcohol consuming respondents, most of them drank two shots on average (18.8%); this number is considered to be within the safe limit of daily alcohol consumption. A woman is considered to be consuming alcohol excessively and dangerously if the number is > 2 shots per day (Douglas, Nicol, & Robertson, 2013).

The research result also showed no relation between sexual assault and risky sexual behavior. According to Zhang et al. (2013), female CSWs who have been sexually assaulted will try to get emotional support and physical protection. CSWs living with HIV who have been sexually assaulted may also look for support from the nearest people, especially given the fact that Indonesian people, especially those in Java, are known to have tolerance and care for others (Supriyadi, Sudarwanto, & Werdiningsih, 2012). The support could resolve trauma and distress due to sexual assault and thus did not affect risky sexual practice among the CSWs living with HIV in this work.

The variable with the greatest effect on risky sexual behavior was self-efficacy. The research

result was consistent with that of Zhang et al. (2015), who found that in a multivariate analysis, self-efficacy is a critical predictor of consistency of condom usage with regular and irregular partners. Control over infection due to risky sexual behavior requires self-efficacy for honest communication with partners (McDonough, 2012). CSWs who have high self-efficacy for condom usage communicate well with their partners and are able to control their emotions during sex. Moreover, CSWs are more confident in persuading their partners (regular partners and customers) to wear condoms (Zhang et al., 2015).

Conclusions

This research concludes that self-efficacy and feeling of security are factors affecting risky sexual behavior among CSWs living with HIV. Nursing services are expected to focus on promotive and preventative efforts by ensuring the availability of free condom in health institutions. Nursing practice should also involve communities in increasing the feeling of security and self-efficacy of CSWs through health programs and health facility improvement efforts aimed toward CSWs living with HIV.

Future studies should involve a large number of respondents and use a longitudinal research design to determine the causal relation between risky sexual behavior and the factors affecting it. They should also develop preventative models for risky sexual behavior among CSWs living with HIV based on the basis of community and social and cultural aspects.

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