

## Article

# The relationship between self-efficacy and spirituality in condom use behaviour among MSM-PLWHA in Bandung, Indonesia

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## Abstract

**Background:** The prevalence of HIV/AIDS, especially among Men Who Have Sex With Men (MSM), is increasing. Disease transmission occurs because of the low use of condoms. This study aimed to identify the relationship between condom self-efficacy and spirituality in condom use behavior.

**Design and Methods:** This study used a cross-sectional design with consecutive sampling techniques. It involved 251 people living with HIV & AIDS (PLWH) MSM. Chi-square test was used in bivariate analysis and then continued with the logistic regression analysis for multivariate analysis.

**Results:** The results show that there was a significant relationship between condom self-efficacy and condom use behavior with p value <0.05 (OR = 11.298; 95% CI: 4.35-20.1, p value=0.000) and spirituality towards condom use behavior p-value < 0.05 (OR = 3.405; 95% CI : 0.85-3.21, p value : 0.00). In multivariate analysis of multiple logistic regression, condom self-efficacy is the factor that predominantly influences condom use behaviour.

**Conclusions:** To improve the consistency of condom use, nurses need to prioritize interventions such as counselling activities that focus on increasing self-confidence (self-efficacy).

## Introduction

Human Immunodeficiency Virus (HIV) has been a worldwide health problem. Its prevalence increases year by year. This virus attacks white blood cells, especially CD4 which results in decreased human immune system.<sup>1</sup> World Health Organization (WHO) data show that the number of HIV sufferers in 2018 reached 37.9 million, 770,000 died, and 1.7 million new cases.

It is reported that the cumulative number of HIV infections until December 2017 was 48,300 cases in all provinces in Indonesia. West Java Province has the third-highest number of HIV/AIDS sufferers nationally, where the number of HIV/AIDS sufferers increases year by year.<sup>2</sup> In recent years, the increase occurs among young MSM (Men who have Sex with Men). Based on the estimation of the Ministry of Public Health, there were 866,840 MSM in 2016. The number of HIV positive MSM is 10,628 people.<sup>3</sup> Based on the report of the Ministry of Public

Health of the Republic of Indonesia, West Java Province has the highest number of MSM with HIV positive nationally, with 138,606 individuals. The increasing global HIV prevalence is currently dominated by key populations.<sup>3</sup> Key populations, including MSM, are 22 times more likely to be infected by HIV / AIDS than other population. MSM or often known as men who have sex with men is a term used to describe the sexual behavior of 2 or more men who have sex without considering sexual orientation and gender identity.<sup>4</sup>

The social problem of MSM seems to have penetrated the Indonesian community. The national MSM population remains the biggest contributor and threat to HIV transmission.<sup>2</sup> The main factor in the transmission of this virus is the low use of condoms as protection when engaging in risky sexual behavior such as anal sex.<sup>5</sup> For this reason, the main focus of preventing HIV transmission is the use of condoms.<sup>6</sup>

The use of condoms as a medium for preventing HIV transmission is considered very important. However, this is often neglected and condoms are not used consistently.<sup>7</sup> Knowing where to obtain condoms does not mean knowing how to use and how to introduce them to the sexual partner.<sup>8</sup> This condition decreases the condom use behaviour. Several studies report that inconsistent condom use is related to several factors, such as self-efficacy.<sup>9</sup> Self-efficacy is a person's belief in his ability to remain consistent without feeling embarrassed or rejected from doing a behavior.

Condom self-efficacy refers to the belief in one's own ability to buy condoms, negotiate condoms with partners, and use condoms during sexual intercourse.<sup>9</sup> Despite the importance of self-efficacy in condom use, most previous studies focused on women and some populations in the African region.<sup>10</sup> The lack of research that focuses on MSM results in a lack of understanding of the role of self-efficacy, which is one of important factors that can be used to predict a person's consistency in using condoms.<sup>9,11</sup> Another factor that affects the consistency of condom use among MSM is spirituality. Spirituality is an important factor in LGBT life. Spirituality is considered as one of the coping mechanisms in MSM by contributing to increased psychological adjustment and behavioral change. Several studies have found that spirituality is often associated with a decrease in condomless anal sex.<sup>12</sup> Apart from the role of spirituality in life, until now, this factor is poorly understood and not utilized by some people so that spirituality has

### Significance for public health

*The study on HIV and homosexuality has been a concern in the study of global health all over the world. The use of condoms is still the main cause of HIV. Research on such a topic is of paramount importance given its contribution to improve the knowledge of people and MSM. The present study helps bridge the spirituality aspect and self-efficacy in preventing HIV transmissions. Improving knowledge regarding these two aspects will help MSM in communicating safe sex information. This is to promote their awareness regarding better, healthy sex life.*

not been widely explored to improve the health of individuals with HIV among MSM.<sup>13</sup> Based on the background, it was found that the behavior of condom use by MSM was related to self-belief and spirituality. It was found that there was a role for self-efficacy and spirituality in MSM. However, the specific role of spirituality and self-efficacy on risky sexual behavior related to condom use has not been widely explored. Even in countries with high levels of religiosity and spirituality, such as Brazil, India, and Indonesia, many health workers have not been trained in assessing and using spirituality aspects in the treatment.<sup>14</sup> Thus, this research focuses on identifying the relationship between self-efficacy and spirituality on condom use behavior among MSM with HIV/AIDS.

## Design and Methods

This study used cross-sectional design with consecutive sampling technique. The participants were consecutively selected in order of appearance according to their convenient availability. The sampling process ended when the total amount of participants (sample saturation) and/or the time limit (time saturation) was reached. There were 251 MSM-PLWHA subjects who met the criteria under the guidance of Female Plus Bandung NGO. The sample inclusion criteria are as follows: i) MSM diagnosed with HIV, ii) aged 20-60 years, iii) able to read, write, and speak Indonesian, and 4) having a partner in the last three months. The research was conducted from 5 to 11 May 2020.

### Four instruments were used in this research

#### Self-Efficacy of Condom Use (27 Questions)

It is an instrument designed by Brafford and Beck (1991) to measure the self-efficacy of condom use. The questionnaire comprises multiple answers with a minimum score of 1: strongly disagree and a maximum score of 5: strongly agree. The results of the questionnaire measurement are categorized as low self-efficacy and high self-efficacy. This measurement has been translated into Bahasa Indonesia which has also been used by Lilipory.<sup>15</sup> This questionnaire has gone through a validity and reliability test with a Cronbach's alpha value of 0.950

#### Functional Assessment of Chronic Illness Therapy Spiritual (FACIT SP12)

It is a questionnaire used to measure the spirituality level of the respondents. It was first developed by Bradley *et al.* in 1999. David Cella, Ph.D., patented it on the FACIT.org website.<sup>16</sup> It uses a Likert scale with a minimum score of 0: not at all, and a maximum score of 4: very often. The measurement results of the questionnaire are categorized into low spirituality and high spirituality. This questionnaire has been translated into various languages and tested for its validity and reliability. This questionnaire has gone through a validity and reliability test with a Cronbach's alpha value of 0.951.

#### Condom use behavior questionnaire (2 questions)

It is a questionnaire used to measure condom use behavior. It is structured based on a systematic review.<sup>17</sup> It uses a Likert scale with a minimum score of 1: never, and a maximum score of 4: always. The measurement results were categorized into consistent and inconsistent. This measurement has been translated into Bahasa Indonesia and used by Gerans.<sup>18</sup> This questionnaire has been tested in terms of validity and reliability with a Cronbach's

alpha value of 0.928. This research has been approved by the Ethics Committee of the Faculty of Nursing, Universitas Indonesia, Depok, Indonesia with number SK-134/UN2.F12.D1.2.1/ETIK 2020. The researcher explained the research objectives and procedures to all respondents and obtained informed consent from all of the respondents.

### Statistical Analysis

Data analysis was conducted using SPSS version 20. Relationship analyses on self-efficacy, spirituality and condom use were carried out using the Chi Square tests. Logistic regression was also performed in this study.

## Results

The results of univariate analysis show that most respondents are in their early adulthood, have a secondary to higher education, and have the same type of regular and casual partner. Most respondents who have inconsistent condom use, have low condom self-efficacy, mostly have inconsistent condom use behavior, have low condom self-efficacy, and mostly have low spirituality (Table 1).

Table 2 shows the results of the bivariate analysis. It is found that condom self-efficacy has a significant relationship with condom use behavior with p-value <0.05. Likewise, spirituality has a strong relationship with condom use behavior with p-value <0.05.

The results of this study indicate that the most dominant factor affecting condom use behavior is condom self-efficacy (OR = 9.352, 95% CI = 4.3520; 20.103). The final multivariate result shows that respondents with low condom self-efficacy have 9,352 times have inconsistent condom use behavior after being controlled by spirituality. Meanwhile, the OR value on the spirituality variable is 1.661, indicating that respondents who have 1.661 times low level of spirituality have inconsistent condom use behavior after being controlled by condom self-efficacy. The results of advanced statistical tests show that condom self-efficacy and spirituality can influence condom use behavior by 86%.

**Table 1. Characteristics of Respondents based on age, education, type of partner, condom use behavior, self-efficacy, and spirituality (n = 251).**

Characteristics	(n)	(%)
Age		
Early adulthood	232	92.4
Late adulthood	19	7.6
Education		
Primary education	61	24.3
Secondary to higher education	190	75.7
Type of partner		
Regular partner	42	16.7
Casual partner	29	11.6
Regular and casual partner	180	71.7
Condom use behavior		
Consistent	78	31.1
Inconsistent	173	68.9
Condom self-efficacy		
High self-efficacy	133	53.0
Low self-efficacy	118	47.0
Spirituality		
High spirituality	130	51.8
Low spirituality	121	48.2

**Table 2. Relationship between condom self-efficacy and spirituality on condom use behavior among MSM with HIV/AIDS (n = 251).**

Variable	Condom use behaviour				Total		OR 95%(CI)	P Value
	Consistent		Inconsistent		n	%		
	N	%	N	%				
Condom self-efficacy								
High self-efficacy	68	51.1	65	48.9	133	100	11.298	0.000 (5.436-23.484)
Low self-efficacy	10	8.5	108	91.5	118	100		
Spirituality								
High spirituality	56	43.1	74	56.9	130	100	3.405	0.000 (1.911- 6.069)
Low spirituality	22	18.2	99	81.8	121	100		

## Discussion

This research shows that the variables of condom self-efficacy and spirituality have a significant relationship with condom use behavior. Condom self-efficacy is one of the factors which can affect the role and use of condoms in same-sex relations among men. This result aligns with the research of Yu *et al.*, which found that self-efficacy has a significant relationship with the consistency of condom use.<sup>19</sup> Consistent condom use can influence the incidence of new HIV infections and, in the long run, can hold the pace of the HIV epidemic.<sup>4</sup> This ability will affect how individuals will think and act to protect themselves by communicating and negotiating about condom use.<sup>20</sup> Perceptions of good self-efficacy also play a role in the sexual assertiveness of partners. This assertiveness is manifested as the ability to open up and respect the partner, the desires and feelings about sexual acts, and everything involved, including the use of protection such as condoms.<sup>21</sup> Thus, it is clear that individuals who have high self-efficacy tend to report consistent condom use. Meanwhile, those who have self-doubt about their ability to use condoms are less likely to be consistent in using condoms.<sup>9</sup> Spirituality plays a role in influencing condom use behavior. The same thing was found in research conducted by Watkins *et al.*, showing that there is a relationship between religion and spirituality with high-risk behavior for using condoms in MSM.<sup>12</sup> Spirituality is defined as a multidimensional relationship, a transcendent relationship that is sacred and free from boundaries.<sup>22</sup> Spirituality is an important factor in the life of LGBT life such as MSM. Spirituality in LGBT is related to their belief in a higher power. This belief plays a role in maximizing LGBT's health and minimizing the damage caused by deviant behavior.<sup>23</sup> Spirituality is considered as one of coping mechanism efforts in MSM contributing to increased psychological adjustment and behavioral change. Several studies have found that spirituality is often associated with a decrease in condomless anal sex.<sup>12</sup>

The results show that the most dominant factor related to condom use behavior was condom self-efficacy. The final multivariate results show that condom self-efficacy was 9.3 times influencing condom use behavior. The results of advanced statistical tests show that condom self-efficacy and spirituality simultaneously contribute to increasing condom use behavior by 86%. The results of the multivariate test in this study are in line with research conducted by Sohn and Cho where the multivariate results show that self-efficacy is the most dominant factor influencing condom use.<sup>24</sup> It aligns with research conducted by Ajayi which found that self-efficacy was positively related to the consistency of condom use.<sup>9</sup> A study conducted by D'Anna showed that self-efficacy could be used as a predictor of the consistency of condom use in MSM.<sup>25</sup>

Condom self-efficacy and spirituality have a significant relationship with condom use behavior. Condom self-efficacy is a dominant factor related to condom use behavior. This research can be used as a

reference to reduce HIV transmission among MSM by focusing on giving counseling activities on increasing self-efficacy. Further research should focus on the way to maximize spirituality which may have an impact on better health for MSM PLWHA and increasing safe sex behaviour such as consistency of condom use.

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**Contributions:** NR, AW, SY proposed the idea and planned research. NR data collector, analysis and interpretation of data, drafting and revisions manuscript. AW, SY: concept and design, analysis and interpretation of data. In the end, all authors committed an equal contribution to the research.

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