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CORRELATION BETWEEN DISCLOSURE STATUS AND STRESS IN MEN WHO HAVE SEX WITH MEN WITH HIV

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Abstract

Men who have sex with men living with HIV (MSM-LWH) experience psychological and social issues, including depression, anxiety, fear of infecting others, frustration, and social isolation. They may also experience problems in their relationships due to a fear of social stigma, such as marital issues, family conflicts, a lack of family support, economic difficulties, and social rejection by the family. This research aimed to assess the relationship between HIV status disclosure and stress in MSM-LWH in Medan, Indonesia. Here, a cross-sectional design and the convenience sampling technique were used. A total of 176 respondents who were MSM, HIV positive, and residents of Medan City were included in this work. Data were collected by means of HIV Status Disclosure questionnaires and a Perceived Stress Scale (PSS). Overall, 70.9% respondents reported disclosing their status to others and approximately half revealed experiencing stress. Moreover, HIV status disclosure was significantly associated with stress (p= 0.025). This study reveals that HIV status disclosure may result in negative effects on MSMLWH, represent a barrier to medical treatment, and increase internal stress.

Keywords: HIV, men who have sex with men, status disclosure, stress

Abstrak

Hubungan antara Status Disclosure dengan Stres pada Lelaki yang Berhubungan Seks dengan Lelaki dengan HIV. Lelaki yang berhubungan Seks dengan lelaki (LSL) yang hidup dengan HIV mengalami masalah psikologis dan sosial termasuk depresi, kecemasan, ketakutan menulari orang lain, frustasi dan isolasi sosial. Selain itu juga mengalami masalah dalam hubungan sosial karena takut akan stigma, konflik dalam keluarga, kurangnya dukungan keluarga, kesulitan ekonomi dan penolakan oleh keluarga. Penelitian ini bertujuan untuk mengetahui hubungan antara status disclosure HIV dengan stress pada LSL yang hidup dengan HIV di Medan, Indonesia. Metode yang digunakan adalah cross-sectional dengan menggunakan teknik convenience sampling. Sebanyak 176 responden LSL dengan HIV positif dan tinggal di wilayah kota Medan. Data dikumpulkan dengan menggunakan HIV Status Disclosure Questionare dan Perceived Stress Scale (PSS). Hasil penelitian menemukan bahwa sebanyak 70,9% responden memiliki status disclosure HIV rendah, sementara itu sebanyak 55,1% resonden mengalami stress yang tinggi. Status disclosure HIV secara bermakna dikaitkan dengan stress (p= 0,025). Penelitian ini mengungkapkan bahwa status disclosure HIV dapat memberikan efek negatif pada LSL yang hidup dengan HIV dan menjadi penghalang untuk perawatan medis dan meningkatkan stress internal.

Kata Kunci: HIV, lelaki yeng berhubungan seks dengan lelaki, status disclosure, stres

Introduction

In 2015, the numbers of people living with HIV/AIDS (PLWHA) and new infections worldwide reached 36.7 million and 1.8 million, respectively. The number of deaths due to HIV/AIDS

has also risen to 1.1 million. Among new HIV infections recorded globally, 18% occurred in patient or sex partners, 13% occurred in men who had sex with men (MSM), 8% occurred in users of injectable drugs, 5% occurred in sex workers, and 56% occurred in others (UNAIDS, 2017).

In December 2016, 319,048 PLWHA were recorded in Indonesia, and this number has gradually increased over time. For example, a comparison of numbers of PLWHA in 2015 and 2016 revealed an increase of 10.621 cases and an increase in mortality of 41 cases over a span of 1 year. Thus, the number and mortality rate of PLWHA in Indonesia may be concluded to increase. Also, in Indonesia, there are a number of 31,543 people with risk factors for MSM groups who were declared HIV positive (Ministry of Health Republic of Indonesia, 2017b). Data for 2007-2011 showed an 8.5-fold increase in the number of MSM LWH. Thus, after heterosexuals, MSM have the second highest risk of HIV (Ministry of Health Republic of Indonesia, 2017a).

Among Indonesia's provinces, North Sumatra ranks seventh in terms of number of PLWHAs (n= 16,856) and fifth in terms of mortality rate (n= 558) (Ministry of Health Republic of Indonesia, 2017b). H. Adam Malik Hospital Medan is the main referral hospital for the North Sumatran region and treats 4,620 HIV/AIDS patients. Based on data on the percentage of PLWHA in Medan in 2016, according to risk factors, the largest percentage was 46.34% in homosexuals, while 53.66% was divided into heterosexuals, transmission via IDU, blood transfusion, and the rest is unknown (Field of PMK, Health Office Medan City, 2016).

The MSM group includes gay and heterosexual men who have sex with other men, bisexual men, male sex workers who have multiple orientations, and men who practice this type of behavior in various settings, such as prisons, and have various traditional cross-cultural identities. The highrisk behaviors of MSM, such as unprotected anal sex, frequencies of sexual activity with male partners, and high numbers of male partners, contribute to the high HIV transmission rates among MSM (Beyrer et al., 2012). The negative social stigma associated with the sexual orientation and HIV status of MSM is also associated with feelings of fear and an inability to divulge the truth regarding this matter (Pereira, Caldeira, &

Monteiro, 2017). The MSM group is highly vulnerable to HIV infection because of their unhealthy activities and increased stress.

PLWHA may experience other issues, including those related to social and emotional aspects (Hinkle & Cheever, 2013), besides physical problems due to their deteriorating body conditions. For instance, MSM-PLHIV experience psychological and social problems including depression, anxiety, fear of infecting others, frustration, and social isolation. They may also experience problems in their relationships due to a fear of social stigma, such as marital issues, family conflicts, a lack of family support, economic difficulties, and social rejection by the family (Dejman et al., 2015). The physical problems experienced by this group are generally related to the gradual weakening of their immune system. The vulnerability of the immune system of PLWHA may result in increased risk of developing opportunistic infections, such as pulmonary Tuberculosis, herpes zoster, pneumonia, chronic diarrhea, hepatitis, Kaposi's sarcoma, lymphoma, neurological disorders, and even malignancies (Black & Hawks, 2009; Ignatavicus & Bayne, 2010;). Many diseases that develop due to a decrease in body immunity can be life threatening and exacerbate the poor health conditions of PLWHA.

Methods

Study Design. In this cross-sectional study, 176 HIV positive MSM aged 18 years and older were recruited by the convenience sample technique. Pirngadi Medan, Medan City Health Center, and Padang Bulan City Health Center Medan City, Indonesia, are government-owned health facilities with VCT services. Each respondent completed a questionnaire that was originally written in English, translated into Indonesian, and then back translated by a language expert. This research was conducted from May to June 2018.

Measures. Data were obtained from completed demographic data questionnaires, a Brief Scale

for HIV Self Disclosure Questionnaire, and a Perceived Stress Scale (PSS). The results of the validity and reliability tests of all questionnaires were confirmed to be valid and reliable with Cronbach's alphas of 0.73 and 0.78, respectively.

Analysis. Data analysis was conducted using SPSS version 23. Data of variables featuring ordinal and nominal scales were presented as frequencies and percentages, while data of variables featuring interval scales were presented as means and standard deviations. Analysis of the relationships among HIV status disclosure variables and stress was conducted using the Chisquared test.

Ethical Consideration. Ethical approval was obtained from the Faculty of Nursing, Universitas Indonesia. All participants provided written informed consent prior to filling out the questionnaires, and all questionnaires were filled out in an isolated room to protect respondent privacy.

Results

Most of the respondents in this research worked in the formal sector as government staff, while others worked in the informal sector, such as salons or bartenders. Some respondents were sex workers. Although most of these workers were private employees in the high-income category, they were closely related from those who worked as permanent employees or civil servants, as can be seen from the fact that approximately 49.1% of the respondents belonged to the high-income group. Moreover, most of the respondents had at least a high school education.

Analysis at an alpha level of 5% found a significant relationship between status disclosure and stress on respondents (p= 0.025, α = 0.05). Whereas in the analysis of the closeness of the relationship between the status of openness with stress is indicated at the OR value of 0.219 (OR 95% CI).

Discussion

Most respondents (70.9%) had not disclosed their HIV positive status to others, and as many as 55.1% of the respondents reported high stress levels. A significant relationship between status disclosure and stress was found among MSM ODHA (p= 0.025, α = 0.05). The results of this work are similar to those of previous studies that found low social and family acceptance among men with HIV/AIDS and that MSM who are well received in the family have a better emotional welfare impact but do not affect on risky sexual behavior (Meyer, 1995; Kuyper & Fokkema, 2011).

Table 1. Characteristics of the Respondents (n= 176)

Variable	Mean	SD	
Age (year)	29.39	6.459	
Length of diagnosis (month)	19.10	15.923	
Duration of ART (month)	17.99	15.897	
	N	%	
Education			
Elementary	2	1.1	
Junior high	6	3.4	
Senior high	103	58.9	
College	64	36.6	
Occupation			
Unemployed	14	8	
Employed	161	92	
Income (Minimum Wage, North Sumatra)			
Low	89	50.9	
High	86	49.1	

Table 2. Correlation of Disclosure Status with Stress in MSM HIV-Positive in Medan (n= 176)

	Stress				OD			
Disclose HIV status	L	Low High		igh	Total		OR	Sig
	n	%	n	%	n	%	(95%CI)	
High	48	37,5	80	62,5	128	47,2	0,219	0,025*
Low	26	55,3	21	44,7	47	52,8	(0,115-0,415)	
Total	74	100	101	100	175	100		

^{*}sig α = 0.05

In this study, 124 respondents (70.9%) reported low levels of HIV status disclosure, while 51 respondents (29.1%) indicated low levels of HIV status disclosure. These results are identical to those of Wei How, Thomas, and Koe (2012, who found that 67.3% of respondents living with MSM were discreet to anyone. Zhao et al. (2016) found that only 21.2% of gay MSM had disclosed their sexual orientation to their parent. Many Chinese gay men are married to heterosexual women (heterosexual marriages) or lesbian (convenience marriages) but continue to participate in homosexual relationships in secret. HIV status is not often disclosed because of fears related to stigma and discrimination. Interventions targeting HIV disclosure among MSM living with HIV (MSM-LWH) should focus on improving perceptions of disclosure self-efficacy and outcome expectancy and include a booster session to facilitate HIV disclosure (Zhao et al., 2016).

Research by Lin et al. (2015) suggested that MSM are more likely to disclose their sexual orientation than their HIV status. However, in the results of the present study, the majority of the respondents had undisclosed HIV status to others, likely because the average length of time since the diagnosis of the respondents was relatively short. Daskalopouloe et al. (2016) revealed that the length of time since diagnosis is related to HIV status disclosure and that HIV status disclosure is a gradual process.

Most of participants indicated significant levels of uncertainty when anticipating how other people would react to their HIV status. Opinions ranged from acceptance to discrimination and from disinterest to fear. These negative feeling may motivate MSM to refrain from disclosing their HIV status or be selective about the people with whom they choose to share this information. The participants also described dealing with social stigma rooted in negative beliefs and (mis)representations of the disease in combination with homophobia. Some men have highlighted the importance of having an undetectable viral load as a mediator of the negative impact of stigma and discrimination (Pereira et al., 2017).

MSM with HIV-positive status may face various types of stigma related to their health status and stigma related to their sexual identity. Stigma and discrimination related to homosexual activities and HIV/STD infection are the major barriers to MSM seeking health services. HIV/ AIDS programs must be sensitive to issues of stigma in and out of the MSM community. Confidentiality and supportive follow up services for HIV-positive MSM are among the first issues that must be guaranteed by HIV intervention programs to persuade more MSM to report for HIV testing. These issues represent some barriers preventing MSM from revealing their HIV status; instead, those who are infected tend to avoid HIV-related issues. A common perception in society is that MSM are deviant, immoral, and unworthy of love. In some cultures, aggressive and hostile attitudes toward samesex sex are linked to the idea that HIV is a punishment for homosexual behavior (Feng et al., 2010; Jeffries et al., 2014)

Besides the threat of physical problems faced by PLWHA, this group is also prone to social problems related to the stigma of the disease. A study on stress showed that respondents very depressed if they had to disclose their HIV/AIDS status to the public, did not know how to explain their illness to others, experienced unpredictable health conditions and feelings of rejection and undesirability, and feared that they could transmit the disease to family and friends and that family and friends may become stigmatized (Feng et al., 2015).

MSM-LWH may experience complex problems related to their disease and status. In general, the problems of MSM-LWH are different from those experienced by PLWHA because the latter are related to stigmas related to sexual orientation, such as discrimination, homophobic, and physical violence, all of which may produce minority stress as a form of chronic psychosocial stress (Kuyper & Fokkema, 2011). According to Meyer (1995), stress minority is a state of stress in MSM populations associated with various stresses, coping mechanisms, and impacts on psychological problems. Minority stress refers to the state of stress experienced by MSM due to discrimination and prejudice from their environment, fear of rejection, indecisiveness about disclosure or concealment of status, internalization of stigma or negative views of themselves as MSM, and poor inability to cope with stress itself (Rostosky & Riggle, 2017). Poor self-acceptance is one of the factors contributing to the stress of MSM, who often tend to conceal their sexual orientation from their immediate family and community (Savin-Williams, 1989). Such concealment will ultimately affect the physical and psychological health of MSM-LWH.

Meyer (1995 found that high minority stress levels may cause 2-3 fold increases in difficult circumstances/suffering. Several studies have shown that stress negatively affects the mental health of MSM-LWH. Kelleher (2009) explored the impact of minority stress on psychological pressure on the lesbian, gay, bisexual, and transgender (LGBT) community in Ireland and revealed that the negative stigma arising from sexual orientation has a negative impact

on the welfare of this community. Other studies reported symptoms of depression and a high risk of suicide in the LGBT community, which are associated with emotional stress due to negative experiences brought about by perceptions of being treated poorly or discriminated against because of their sexual orientation (Almeida, Johnson, Corliss, & Molnar, 2009).

The influence of stress on MSM-LWH presents physical, emotional, intellectual, social, and spiritual consequences that may occur simultaneously. Physically, stress can interfere with physiological homeostasis and result in poor physiological signs and symptoms arising from the activation of the lymphatic and neuroendocrine systems. The response to stress may be manifested as increases in cardiac rate, muscle tension, blood sugar, and respiration rate, among others. Emotionally, stress causes negative or non-constructive feelings among MSM-LWH. Intellectually, stress affects the ability of MSM-PLHIV to solve problems. Socially and spiritually, stress can affect the relationships of MSM-LWH with others and their value/belief systems held (Berman, Snyder, Kozier, & Erb, 2016).

MSM-LWH may experience various conditions contributing to stress. This stress is often caused by life changes related to the disease and its status. Research indicates that the stress felt by PLWHA MSM is caused by feelings of pressure in making decisions related to disclosure or concealment of status, unpredictable health conditions, rejection from their social environment, and the fear of transmitting HIV to their family/friends (Feng et al., 2015). The stress of MSM-LWH is related to not only their HIV status but also stigma toward their sexual orientation. For example, discrimination, homophobia, and physical violence can result in a minority stress as a form of chronic psychosocial stress (Kuyper & Fokkema, 2011; Rostosky & Riggle, 2017).

Conclusion

HIV status disclosure may exert negative effects on MSM-LWH, represent a barrier to me-

dical treatment, and increase internal stress. Health workers must provide education to MSM-LWH to encourage them to comply with their treatment programs and improve their health status.

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References

- Almeida, J., Johnson, R.M., Corliss, H.L., Molnar, B.E., & Azrael, D. (2009). Emotional distress among LGBT youth: The influence of perceived discrimination based on sexual orientation. *Journal of Youth and Adolescence*, 38 (7), 1001–1014. doi: 10.10 07/s10964-009-9397-9.
- Berman, A.J., Snyder, S., Kozier, B., & Erb, G. (2016). *Kozier & Erb's fundamentals of nursing: Concepts, process, and practice* (10th Ed.). USA: Pearson Prentice Hall.
- Beyrer, C., Baral, S.D., Van Griensven, F., Goodreau, S.M., Chariyalertsak, S., Wirtz, A.L., & Brookmeyer, R. (2012). Global epidemiology of HIV infection in men who have sex with men. *The Lancet*, *380* (9839), 367–377. doi: 10.1016/S0140-6736(12)6082 1-6.
- Bidaki, R., Rajabi, Z., Rezaeian, M., Ghannad, M.S., Shahrbabaki, M.H.S. (2017). Social acceptance for patients infected with human immunodeficiency virus in Kerman and Rafsanjan, Iran. *International Journal of High Risk Behaviors and*, 6 (1), 4–7. doi: 10.5812/ijhrba.30564.
- Black, J.M., & Hawks, J.H. (2009). *Medical-surgical nursing: Clinical management for positive outcomes* (8th Ed.). St. Louis: Saunders, Elsevier.

- Daskalopoulou, M., Lampe, F.C., Sherr, L., Phillips, A.N., Johnson, M.A., Gilson, R., ... Study, A. (2016). Non-disclosure of HIV status and associations with psychological factors, ART Non-adherence, and viral load non-suppression among people living with HIV in the UK. *AIDS and Behavior*, 21 (1), 184–195. doi:10.1007/s10461-016-1541-4.
- Dejman, M., Ardakani, H.M., Malekafzali, B., Moradi, G., Gouya, M.M., Shushtari, Z.J., ... & Mohraz, M. (2015). Psychological, social, and familial problems of people living with HIV/AIDS in Iran: A qualitative study. *International Journal of Preventive Medicine*, 6, 126. doi: 10.4103/2008-7802. 172540.
- Feng, M.C., Feng, J.Y., Yu, C.T., Chen, L.H., Yang, P.H., Shih, C.C., & Lu, P.L. (2015). Stress, needs, and quality of life of people living with human immunodeficiency virus/AIDS in Taiwan. *The Kaohsiung Journal of Medical Sciences*, 31 (9), 485–492. https://doi.org/10.1016/j.kjms.2015.07.003.
- Feng, Y., Wu, Z., & Detels, R. (2010). Evolution of men who have sex with men community and experienced stigma among men who have sex with men in Chengdu, China. *JAIDS Journal of Acquired Immune Deficiency Syndromes*, 53, S98–S103. doi: 10.1097/qai.0b013e3181 c7df71.
- Field of PMK, Medan City Health Office. (2016). *Profil kesehatan Kota Medan tahun 2016* (pp. 31–35). Medan: Field of PMK, Medan City Health Office.
- Hinkle, J.L., & Cheever, K.H. (2018). Brunner and Suddarth's textbook of medical-surgical nursing (14th Ed.). Philadelphia: Wolters Kluwer.
- Ignatavicus, D., & Bayne, M.V. (2010). *Medical* surgical nursing: A Nursing process approach (6th Ed.). Philadelphia: WB Sounder Company.
- Jeffries, W.L., Okeke, J.O., Gelaude, D.J., Torrone, E.A., Gasiorowicz, M., Oster, A.M., ... Bertolli, J. (2014). An exploration of religion and spirituality among young, HIV-infected

- gay and bisexual men in the USA. *Culture, Health and Sexuality*, *16* (9), 1070–1083. https://doi.org/10.1080/13691058.2014.9283 70.
- Kelleher, C. (2009). Minority stress and health: Implications for lesbian, gay, bisexual, transgender, and questioning (LGBTQ) young people. *Counselling Psychology Quarterly*, 22 (4), 373–379. https://doi.org/10.1080/09515070903334995.
- Kuyper, L., & Fokkema, T. (2011). Minority stress and mental health among Dutch LGBs: examination of differences between sex and sexual orientation. *Journal of Counseling Psychology*, 58 (2), 222–233. https://doi.org/10.1037/a0022688.
- Lin, X., Chi, P., Zhang, L., Zhang, Y., & Fang, X. (2015). Disclosure of HIV serostatus and sexual orientation among HIV-positive men who have sex with men in China. *Community Mental Health Journal*, *52* (4), 457–465. doi: 10.1007/s10597-015-9879-z.
- Meyer, I. (1995). Minority stress and mental health in gay men. *Journal of Health and Social Behavior*, *36* (1), 38–56. https://doi.org/10. 2307/2137286.
- Ministry of Health Republic of Indonesia. (2017a). Data dan informasi profil kesehatan Indonesia 2016. Jakarta: Health Data and Information Center The Ministry of Health Republic of Indonesia. Retrieved from https://www.kemkes.go.id/resources/downlo ad/pusdatin/lain-lain/Data% 20dan% 20Infor masi% 20Kesehatan% 20Profil% 20Kesehatan% 20Indonesia% 202016% 20-% 20% 20small er% 20size% 20-% 20web.pdf.
- Ministry of Health Republic of Indonesia. (2017b). Statistik Kasus HIV/AIDS di Indonesia. Jakarta: Ministry of Health Republic of Indonesia. Retrieved from https://siha.kem kes.go.id/portal/files_upload/Final_Laporan _HIV_AIDS_TW_1_2016.pdf.

- Mitrani, V.B., De Santis, J.P., McCabe, B.E., Deleon, D.A., Gattamorta, K.A., & Leblanc, N.M. (2017). The impact of parental reaction to sexual orientation on depressive symptoms and sexual risk behavior among Hispanic men who have sex with men. *Archives of Psychiatric Nursing*, *31* (4), 352–8. http://dx.doi.org/10.1016/j.apnu.2017.04.004.
- Pereira, H., Caldeira, D., & Monteiro, S. (2017). Perceptions of HIV-Related stigma in Portugal among MSM with HIV infection and an undetectable viral load. *Journal of the Association of Nurses in AIDS Care*, 29 (3), 439–453. doi: 10.1016/j.jana.2017.12.002.
- Rostosky, S., & Riggle, E.D.B. (2017). Same-sex relationships and minority stress. *Current Opinion in Psychology*, *13*, 29–38. https://doi.org/10.1016/j.copsyc.2016.04.011.
- Savin-Williams, R.C. (1989). Coming out to parents and self-esteem among gay and lesbian youths. *Journal of Homosexuality*, 8 (1–2), 1–35. doi: 10.1300/J082v18n01 01.
- UNAIDS. (2017). UNAIDS data 2017. *Joint United Nations Programme on HIV/AIDS*, 1–248. doi: 978-92-9173-945-5. Retrieved from https://www.unaids.org/sites/default/files/me dia_asset/20170720_Data_book_2017_en.pd f.
- Wei, C., Lim, S.H., Guadamuz, T.E., & Koe, S. (2011). HIV disclosure and sexual transmission behaviors among an internet sample of HIV-positive men who have sex with men in Asia: Implications for prevention with positives. *AIDS and Behavior*, *16* (7), 1970–1978. doi: 10.1007/s10461-011-0105-x
- Zhao, Y., Ma, Y., Chen, R., Li, F., Qin, X., & Hu, Z. (2016). Non-disclosure of sexual orientation to parents associated with sexual risk behaviors among gay and bisexual MSM in China. *AIDS and Behavior*, 20 (1), 193–203. https://doi.org/10.1007/s10461-015-11 35-6.