# Factors influencing HIV group counseling participation at a referral hospital in Jakarta, Indonesia

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### Abstrak

Latar Belakang: Beberapa penelitian sebelumnya memperlihatkan bahwa dukungan sosial termasuk Konseling HIV dan dukungan kelompok memiliki efek langsung terhadap kepatuhan pada pengobatan HIV. Faktor yang berpengaruh terhadap partisipasi pada konseling kelompok pasien HIV di Indonesia belum diketahui. Penelitian ini dilakukan untuk mengetahui partisipasi pasien HIV pada konseling kelompok di Rumah Sakit Penyakit Infeksi-Sulianti Saroso, Jakarta Utara.

*Metode:* Penelitian ini dilakukan pada bulan Juli – Oktober 2013 menggunakan metode kuantitatif dengan desain studi potong lintang. Pasien HIV yang menggunakan anti retroviral sebanyak 1440 orang diminta kesediannya untuk berpartisipasi pada penelitian ini. Analisis dilakukan menggunakan analisis regresi logistik.

Hasil: 709 dari 880 pasien yang mengikuti konseling kelompok telah melengkapi kuesioner dan bersedia menjadi sampel penelitian. Sebagian besar responden adalah laki-laki (71.1%), lulus SMP (84.3%), dan bekerja penuh waktu (51.5%). Stadium klinis mayoritas responden (87.3%) stadium 3 dan 4. Sebagian kecil responden (9.7%) memiliki ko-infeksi hepatitis B atau C, dan 12.7% memiliki anggota keluarga HIV positif. Sebanyak 272 (38,4%) responden mengikuti konseling kelompok. Umur, waktu kerja, kepuasan terhadap penghasilan, memiliki anggota keluarga dengan HIV positif dan responden yang pernah menggunakan narkoba suntik (IDU) merupakan faktor-faktor yang mempengaruhi partisipasi responden pada konseling kelompok.

**Kesimpulan:** Konseling kelompok harus dikenalkan pada penderita HIV yang sulit dijangkau, termasuk pasien yang lebih tua dan pasien dengan riwayat IDU. Selain itu, penyedia layanan kesehatan harus mempertimbangkan jadwal alternatif untuk pasien yang bekerja penuh waktu dan tidak dapat menghadiri konseling kelompok selama jam kerja. (Health Science Journal of Indonesia 2018;9(1):25-30)

Keywords: HIV, konseling, partisipasi, dukungan, sosial

#### Abstract

**Background:** Previous studies indicate that social support, including HIV counseling and support groups, have a direct effect on adherence to HIV therapy. Currently, factors of non-participation in HIV counseling in the Indonesian population are unknown. Based on this condition, we performed this study to explore HIV patient in group counseling participation at Prof. Sulianto Saroso Infectious Disease Hospital (RSPI-SS), a national referral hospital in Northern Jakarta in Indonesia.

**Methods:** A cross-sectional study was conducted between July and October 2013. 1,440 HIV patients in Jakarta obtaining ART from RSPI-SS were approached to participate in a quantitative survey. Factors associated with group counseling participation were assessed using logistic regression analyses.

**Results:** A total of 709 (80.6%) out of 880 patients in group counseling completed the survey. The most of respondents were male (71.1%), had completed at least secondary school (84.3%), and worked full-time (51.5%). The majority (87.3%) of respondents had advanced disease (clinical stage 3 and 4). A small proportion (9.7%) of patients had hepatitis B or C co-infection, and 12.7 % reported having a family member (partner or child) who was also HIV positive. Only 272 (38,4%) of surveyed patients reported attending HIV group counseling. Five variables were found to be independently associated as factors influencing with participation in HIV group counseling including age, hours worked, income satisfaction, Family member with HIV, and history of Injection Drug User's (IDU's).

**Conclusion:** Based on findings, outreach activities promoting HIV group counseling should target patients who are unable or less likely to attend group counseling, including older patients and patients with history of IDU's. Additionally, health care providers should consider alternative schedules for patients who work full-time and are unable to attend group counseling during work hours. *(Health Science Journal of Indonesia 2018;9(1):25-30)* 

Keywords: HIV, counseling, participation, social, support

Counseling is one of the most utilized psychosocial interventions for patients with HIV and AIDS.1 Although HIV/AIDS is a physical condition, it has a profound effect on more than just physical health. With the advent of anti-retroviral therapy (ART), HIV/AIDS has become a chronic condition over the past three decades. Patients, while having the benefit of living longer, have to cope with the pain of the disease, financial burden of health care costs, stigma, social isolation, and other psychosocial problems.<sup>2,3</sup> Reduced psychosocial support can have a profound effect on a person's quality of life and carry over to their treatment adherence and mortality<sup>1</sup>. Therefore, complementary and holistic approaches to therapy including counseling and support groups, should be considered to provide the much needed social support that is lacking within this patient population.<sup>4</sup> Counseling provides peer support, a sense of community, a platform for dissemination of information, and a safe outlet to talk about disease and share experiences.3

The benefits of HIV counseling and social support are well documented. Generally, counseling provides informational and emotional benefits. Participants in counseling can receive the latest news and information on drugs, HIV in general, and adjunctive therapies.<sup>5</sup> Informational support groups are especially influential in empowering patients to make informed healthcare decisions and reduce feelings of uncertainty that come with new diagnosis.<sup>3,6</sup> Through the provision of advice, participants are educated on the risks of unprotected sex, importance of HIV status disclosure, coping skills, and HIV infection during pregnancy. Generally, this dissemination of information and education has the benefit of helping to reduce spread of disease through reduction of risky behaviors.<sup>3,7,8</sup>

Support groups and HIV counseling have also been found to improve treatment adherence, and social support, in general, has been found to be an independent predictor of HIV ART adherence<sup>9,10,11</sup>. Support group participants are given a sense of belonging, and attendees have reported less emotional distress, loneliness, depression, and higher self-esteem than their counter-parts<sup>12</sup>. Previous studies found that women were more likely to attend counseling<sup>3,13</sup> and that age<sup>14,15</sup>, education<sup>16</sup>, knowing your sero-status longer<sup>12,16</sup>, and employment status<sup>9,17,18</sup> also impact attendance.

In Indonesia, there are an estimated 610,000 people living with HIV, with prevalence highest among

female sex workers and their clients, transgender individuals, drug users, and men that have sex with men<sup>19</sup>. Treatment and HIV group counseling are available for these key affected populations through a number of mechanisms. ART is provided free of charge at designated government hospitals, and non-governmental organization (NGOs) also offer community outreach and group counseling to HIV patients and key affected populations. In the Jakarta Province, the Prof. Sulianto Saroso Infectious Disease Hospital (RSPI-SS) serves 1,440 active HIV patients from 6 cities in Jakarta. The hospital provides ART monthly to HIV patients enrolled in the outpatient facility, and it offers counseling to patients using a combination of peer counseling and psychologist services. Previous research conducted at RSPI-SS explained factors associated with ART adherence and found that patients participating in counseling had better adherence to ART. However, the factors that determine whether patients seek group counseling are unknown for this population. Considering the previous research on ART adherence conducted at RSPI-SS and the lack of previous research to explore HIV patient in group counseling participation, this study assessed demographic and clinical factors that impact participation in HIV group counseling.

# **METHODS**

## Ethics

The study protocol was approved by the Ethics Committee at the University of Indonesia with approval number 481/H2.F1/ETIK/2013. Written consent was obtained from patients at the time of survey.

## **Study Design and Setting**

A cross-sectional study was conducted between July and October 2013. HIV patients obtaining ART from RSPI-SS were approached to participate in a quantitative survey. This data was a subset data of 2,800 HIV and AIDS survival research patients in Prof. Sulianti Saroso Infectious Diseases Hospital, Ministry of Health, Rep of Indonesia by the year 2013 – 2014, there were 1,440 HIV patients had ART and should have a counseling program, but 880 patients only in the counseling list. Base on Slovin formula, minimum sample size for this study was 156 patients, but a total of 709 (80.6%) out of 880 counseling patients following group counseling completed the survey.

## **Data Collection**

Data was collected using a paper-based questionnaire, which was administered by an HIV clinic nurse or doctor during a patient's scheduled appointment. Patients were included in this study if they were at least 18 years old. In addition to gathering basic demographic information from their records (e.g. birthdate, marital status, number of children, education level, religion, HIV and AIDS diagnosis dates, and co-morbid diseases), patients were asked questions regarding their utilization of additional HIV counseling. Additional HIV group counseling included attending HIV/AIDS support groups at RSPI-SS or attending support groups at HIV/AIDS NGOs. Government mandated pre-HIV test and post-HIV test counseling was not included. Data were also collected on patients' work status, income, recreational drug use, household size, and whether any of their family members were HIV positive. Survey results were entered in a Stata/IC Version 13 (Stata Cop., College Station, TX, USA) database.

#### **Data Analysis**

Demographic and HIV-related characteristics were analyzed descriptively. The dependent variable was a composite of whether the patient reported attending to HIV group counseling queried in the questionnaire (support group sessions at RSPI-SS or NGO support groups). This variable was coded as binary (group counseling = 1 and no counseling = 0). To explore the association between HIV group counseling attendance and demographic, medical, and behavioral variables, logistic regression was used to produce unadjusted odds ratios (OR) and corresponding 95% confidence intervals (CI). Any variables with a p-value <0.1 were then tested for collinearity and then subsequently included in a multiple logistic regression model. Backward stepwise selection procedure was used to obtain the final model and identify variables independently associated with HIV counseling attendance. Adjusted OR and 95% CI were presented for the final model. The Homer-Lemeshow goodness of fit test was used to assess model validity.

# RESULT

A total of 709 (80,6%) out of 880 patients completed the survey (See Table 1). The majority of patients were male (71.1%), and the median age was 34 years (interquartile range [IQR]: 30-38). Most patients had completed at least secondary school (84.3%) with 12.1% completing tertiary education. For employment, 51.5% of patients reported working full-time, 21.2% part-time, and 27.4% reported not being employed; where most respondents (65.0%) reported that their household income was insufficient. Most patients were Muslim (61.6%), Christian (29.8%) and others (8.6%).

More than half of the surveyed patients (87.3%) were diagnosed with WHO Clinical Stage III or IV. A small proportion (9.7%) of patients had Hepatitis B or C co-infection. 12.7 % percent reported having a family member who was also HIV positive. Only 272 (38.4%) of surveyed patients reported attending HIV group counseling.

Table 1. Demographic Characteristic of HIV patients at Prof. Sulianti Saroso Infectious Diseases Hospital, Jakarta. N = 709

No	Demographic Characteristics	n	(%)
1	Group and NGO Counseling	272	38.4
2	Sex		
	Male	504	71.1
	Female	205	28.9
3	Age (Median 34 years old, [IQR]: 30-38 years old)		
	18 to 30	402	56.7
	31 to 40	215	30.3
	41 and Over	92	13.0
4	Marital status		
	Not married	258	36.4
	Married	343	48.4
	Divorced/widowed	108	15.2
5	Reported having children		
	No	478	67.4
	Yes	231	32.6
6	Education		
	Primary or less	25	3.5
	Secondary	598	84.3
	Tertiary	86	12.1
7	Hours worked		
	Full-time	365	
	Part-time	150	
	Not working	194	27.4
8	Income perceived as sufficient		
	Not sufficient	461	
	Sufficient	248	35.0
9	Religion		
	Moslem	437	61.6
	Christian	211	29.8
10	Other	61	8.6
10	WHO clinical stage	00	10 7
	HIV (I or II)	90	12.7
11	AIDS (III or IV)	619	87.3
11	Years HIV	110	50 7
	2 years and Over	416	
10	Less 2 years	293	41.3
12	Hepatitis B or C co-Infection	69 262	9.7 27.1
13	History of intravenous drug use	263	37.1
14	Reported family member with HIV	90	12.7

<sup>1</sup>A large number of patients did not respond to the survey questions regarding whether they have children.

Table 2. Factors associated with patient participation in HIV group and NGO counseling at Prof. Sulianti Saroso Infectious Disease Hospital, Jakarta, N= 709\*

	Bivariate		Multivariate	
Characteristic	OR (95% CI)	Р	OR (95% CI)	Р
Female	0.90 (0.64-1.26)	0.59		
Age				
30 and under	3.11 (1.81-5.35)	0.000	2.55 (1.44-4.53)	0.001
31 to 40	1.97 (1.11-3.52)	0.021	1.68 (0.92-3.06)	0.089
41 and over	REF		REF	
Marital status				
Not married	REF			
Married	0.90 (0.65-1.26)	0.551		
Divorced/widowed	0.57 (0.35-0.92)	0.022		
Reported having children	0.73 (0.52-1.01)	0.067		
Family member with HIV	1.73 (1.11-2.69)	0.021	1.88 (1.17-3.01)	0.009
Education			× ,	
Primary or less	REF			
Secondary	2.79 (1.03-7.55)	0.043		
Tertiary	1.29 (0.43-3.87)	0.647		
Hours worked				
Full-time	REF		REF	
Part-time	1.72 (1.17-2.52)	0.006	1.81 (1.21-2.71)	0.004
Not working	0.91 (0.63-1.31)	0.614	0.75 (0.51-1.11)	0.154
Income perceivedb as sufficient	0.52 (0.37-0.72)	0.000	0.43 (0.30-0.61)	0.000
Religion				
Islamic	REF			
Christian	0.91 (0.65-1.28)	0.599		
Other	0.74 (0.42-1.31)	0.308		
WHO clinical stage				
AIDS (Stage III or IV)	1.09 (0.69-1.72)	0.812		
Years since HIV diagnosis	0.62 (0.45-0.84)	0.003		
Hepatitis B or C co-infection	0.78 (0.46-1.33)	0.439		
Injection Drug User	1.94 (1.42-2.65)	0.000	1.74 (1.24-2.43)	0.001

Eight variables were found to be associated with participation in HIV group counseling including age, marital status, family member with HIV, education, hours worked, income satisfaction, years since HIV diagnosis, and Injection Drug User's (IDU's) (Table 2). Five variables were found to be independent predictors based on the final logistic regression model, which passed the goodness-of-fit test (P<0.05, Table 2). Compared to full-time working HIV patients, part-time workers (aOR 1.81, 95% CI 1.21-2.71) or non-working patients (aOR 0.75, 95% CI 0.51-1.11) were more likely to participate in HIV group counseling. Those who reported having a family member with HIV (aOR 1.88, 95% CI 1.17-3.01) were more likely to participate than those who did not report any. Patients aged 31 and under (aOR 2.55, 95% CI 1.44-4.53) were more likely to attend group counseling than their oldest (41 and over) counterparts. Patients who perceived their income to be sufficient (aOR 0.43, 95% CI 0.30-0.61) were

also more likely to participate in group counseling, and patients had injected drug user (aOR 1.74 95% CI 1.24-2.43) were more likely to attend group counseling.

# DISCUSSION

Counseling has previously been found to improve ART adherence in the hospital's HIV patient population<sup>11</sup>. This study explored factors associated with HIV group counseling attendance and found that a number of demographic and clinical factors impact patient participation. Notably, younger patients were more likely to attend to group counseling. Previous studies in the United States and China had similar findings<sup>15,20</sup>. Potential reasons include more social support and less physical restrictions to seek out complementary therapies. Younger people may also have a less stigmatized attitude towards HIV infection.

Previous studies have found that employment status has a differing effect on attendance to counseling. Employed patients were less likely to attend meetings, and most studies reported that this was due to lack of time<sup>3,9,21</sup>. Unemployed patients reported not attending counseling due to inability to afford transportation<sup>3,9</sup>. Our study found that patients who did not work full-time were more likely to attend group counseling. Full-time patients were required to take time off work to pick up their medications each month from the hospital. This may have limited the opportunity to take further time off to attend group counseling which is held during business hours. Patients were more likely to attend if they reported having sufficient income. This suggests that monetary barriers to counseling exist, which has been observed in previous studies9,17

Patients who reported an HIV positive family member were more likely to participate in counseling. Possible reasons include motivation to maintain a healthy life for the family, support between the HIV positive family members, and less HIV-associated stigma in a family where more than one person is HIV positive. Having an HIV positive family member may reduce isolation and provide an incentive outside oneself to attend counseling<sup>11</sup>.

Although there was no significant, co-infection to Hepatitis B and C are the important variables and it related to the IDU's and sexual behavior. Most of the Hepatitis C patients were IDU's. Patients with Hepatitis B or C co-infection were less likely to participate in HIV group counseling. This is concerning as patients with co-infections have worse prognosis<sup>22-25</sup>. Interventions among this group are required and may include outreach to encourage attendance. With treatment options for Hepatitis B and C increasing globally, patients may benefit from the information provided during counseling and can envisage a longer-term future with these chronic but manageable conditions.

The main strength to our study is that it is the first to examine factors impacting HIV group counseling attendance in Jakarta. Limitations of the study include a moderate response rate to the survey (61%) and collection of self-reported data which may have biased responses including on sensitive topics such as drug use or disclosure of household member serostatus. However, with a relatively large sample size and survey administration in a discrete confidential setting, the data quality may have been less affected by such biases. The study was conducted among patients seeking care in an urban setting (Jakarta) in the wealthiest province in Indonesia, thus findings may not be generalizable to other parts of the country. Further studies should be conducted in hospitals or HIV services providing counseling in other regions of Indonesia. In addition, since the study was crosssectional, future work should assess counseling participation over time.

In conclusion, since counseling provides positive adjustment to HIV and improves ART adherence<sup>26,27</sup>, RSPI-SS should continue providing patients with HIV group counseling options. The hospital should reach out to groups not attending counseling. Group counseling should be promoted to older age groups, those who report insufficient income and patients with bloodborne co-infections. For patients who work full-time, the hospital could offer counseling sessions outside business hours. These interventions have been trialed and found to be successful in other settings<sup>1,28</sup>. Thus, they may be worth the hospital investment for improved patient outcome.

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