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## Determinants of Notification Factors for Spouses of People with HIV-AIDS (PLWHA)



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### Abstract

A person with reactive HIV status does not always feel the need to inform their partner about their status, therefore the government is seeking a program to open their HIV status through partner notification. The application of partner notifications in reality still did not meet the expectations. The aim was to analyze the determinants of notification of spouses of people with HIV-AIDS (PLWHA) in Care, Support, and Treatment Services in Mojokerto City. The research design was analytic with a cross-sectional approach. A sample of 92 PLWHA was taken based on purposive sampling. The research instrument used the partner notification checklist from the Ministry of Health of the Republic of Indonesia. Test data analysis using multiple linear regression: ANOVA. The results of the research showed that factors related to the notification of PLHIV partners include; age (0.02), education (0.02), and occupation (0.01) significantly (<0.05). It was found that the application of partner notification was poorly practiced. Some of the patient's reasons were unwilling to provide information about their partner, feel embarrassed, did not want the partner to know about their HIV-AIDS status.

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## INTRODUCTION

Human immunodeficiency virus (HIV) and Acquired Immunodeficiency Syndrome (AIDS) are global health problems in both developed and developing countries because they are highly contagious (Farhana, N.D. & Ariyanti, 2019). Partners of patients with HIV are the people most vulnerable to infection. There are still many people who do not know about their partner's HIV status (Guerra-Ordoñez et al., 2017). A person with reactive HIV status does not always feel obliged to inform their partner about their status, therefore the government is seeking a program to open their HIV status through partner notification (Mahathir et al., 2020). This program has not been able to run properly because people living with HIV-AIDS (PLWHA) do not have the courage or do not know how to do it properly and correctly (Kemenkes RI, 2020b). The phenomenon that occurs in Mojokerto City is the low number of HIV and AIDS patients who are willing to do partner notification even though it has been offered by HIV and AIDS service workers.

The number of HIV cases reported from 2005 to 2019 has increased every years (Riskseddas, 2018). The cumulative number of HIV cases reported up to March 2021 was 6762 people. The highest percentage of PLHIV found in the period January - March 2021 was in the age group 25-49 years (71.3%), followed by the age group 20-24 years (16.3%), and the age group  $\geq 50$  years (7.9%). Data based on gender shows the percentage of PLWHA found in males is 69% and in females is 31% with a ratio of males and females. The percentage of PLHHA found in the period January - March 2021 based on risk factors for homosexuality is 27.2%; heterosexual 13.0%; and the use of alternating syringes 0.5%. The percentage of risk factors is not known to be large (50.4%). The percentage of people living with HIV found reported in the FSW population group was 2.4%; MSM 26.3%; transgender 0.9%; injecting drug users 0.5%; WBP 0.7%; pregnant women 20.9%; TB patients 11.5%; and STI patients 0.8% (Direktur Jenderal P2P, 2021).

Data at the PDP Clinic on 23 May 2022 found that the number of HIV and AIDS patients in Mojokerto City was 367 people. The number of Index Patients who were offered partner notifications this month was 39 people, the Number of Index Patients who were offered couple notifications this month and received partner notification offers were 19 people, the number of Index Tests given by Index Patients to be referred for HIV testing this month were 26 people,

the number of Index Tests referred for HIV testing this month and 8 people carrying out HIV tests, the number of Index Tests referred for HIV testing this month and carrying out HIV tests with positive test results were 5 people, the number of Index Tests were already PLHIV when referred for 3 people tested for HIV this month, the number of Index Tests who failed to contact or refused to take an HIV test when referred for HIV testing this month was 3 people, the number of Index Tests just started ARV treatment this month was 5 people.

Factors that influence the application of partner notifications in preventing the transmission of HIV and AIDS to PLWHA partners include the relationship between patients and their partners, communication and patient-staff relations, staff skills, policies, notifications to casual couples – difficult to identify, some groups from key populations may be do not want to reveal to their partner (Kemenkes RI, 2018). Partner notification is done voluntarily where health workers ask patients to disclose their HIV and AIDS status to sexual partners or partners who inject drug users in the hope that patients can bring their partners to also be tested for HIV and provide access to treatment if the test results are positive (Unika, 2016). The impact of the application of partner notifications carried out by health workers is that the information provided is correct, accurate, inexpensive, more acceptable for certain groups of patients, but creates a risk of damage to the relationship between patients and their partners, risks of getting violence, difficult for partners to accept (Mahathir et al., 2020). Partner notifications are carried out through the referral method with a contract, so it is likely that the officer will notify the patient's partner, but the delay in notification carries the risk of losing the opportunity. Partner notifications also allow violence to occur due to disclosure of their HIV status (Kemenkes RI, 2020b).

Previous research has shown that partner notification can increase the uptake of HIV testing (Dalal et al., 2017). Assisted partner notification improved partner testing and diagnosis of HIV-positive partners, with few reports of harm. WHO strongly recommends voluntary assisted HIV partner notification services to be offered as part of a comprehensive package of testing and care (Laar et al., 2018). Efforts that can be made to improve the application of notifications for PLWHA partners are to apply the principle of confidentiality in running the program, and the results of the examination may only be disclosed to the person concerned, the family if the person concerned is incompetent, the health worker

who handles it, sexual partners and other parties in the legislation (Fradianto et al., 2023). Spouse notifications can also be made using whatsapp media so there is no need to meet face to face with health workers (Kemenkes RI, 2020a). The aim is to analyze the determinants of notification of spouses of people with HIV-AIDS (PLWHA) in Care, Support, and Treatment Services in Mojokerto City.

## METHODS

The type of the research was analytic, with a cross-sectional approach. The independent variables in this research were partner notification factors (age, gender, education, occupation, type of referral, length of time diagnosed), and the dependent variable was PLWHA partner notification. A sample of 92 PLWHA was taken by purposive sampling. The instrument used a checklist to measure the application

of partner notifications from the assessment of the Ministry of Health of the Republic of Indonesia. The researcher collected the data in the following steps: 1) selected research subjects according to the inclusion criteria, 2) provided research information as clearly as possible to research subjects, 3) asked for respondents' consent to become research subjects, 4) filled out questionnaires to all respondents, 5) analyzing data from the results of distributing questionnaires. Bivariate analysis used pearson, and multivariate analysis with multiple linear regression tests to correlate simultaneously several dependent variables with independent variables by following a number of modeling assumptions. To find out the assumption of linearity, it can be seen from the ANOVA test (overall F test) if the results are significant (p value <0.05) then the model is linear.

## RESULTS

Based on table 1, the majority of respondents' characteristics were age 26-35 years, male gender, junior and senior high school education, private employment, multiple referral types, old diagnosed 3.84 years.

**Table 1: The characteristics of respondents (n = 92)**

Characteristics of Respondents	Respondents (n = 92)		p-value
	f	%	
<b>Age</b>			
< 17 years	3	3,3	0,02*
17-25 years	15	16,3	
26-35 years	30	32,6	
36-45 years	29	31,5	
46-55 years	9	9,8	
> 55 years	6	6,5	
<b>Gender</b>			
Man			0,13
Women			
<b>Education</b>			
Elementary	51	55,4	0,02*
Intermediate	27	29,3	
High (College)	14	15,2	
<b>Work</b>			
Doesn't work	14	15,2	0,01*
Private	32	34,8	
Self-employed	22	23,9	
ASN	5	5,4	
Student	5	5,4	
Odd	14	15,2	
<b>Referral Type</b>			
There isn't any	4	4,3	0,39
Patient Referrals	30	32,6	
Officer Referrals	22	23,9	
Contract Reference	4	4,3	
Double Reference	32	34,8	
<b>Old Diagnosed</b>			
Mean ± SD		3,84 ± 3,490	0,31

Source: Primary Data

**Table 2: PLWHA Spouse Notifications**

PLWHA Spouse Notifications	Respondents (n = 92)	
	F	%
Very good	11	12,0
Good	2	2,2
Enough	19	20,7
Bad	38	41,3
Very bad	22	23,9

*Source: Primary Data*

## DISCUSSION

The results showed that almost half of the patients implemented bad partner notifications. The results in Cameroon on partner notifications show that overall, 18,730 index couples who agreed to receive partner notifications identified 21,057 contact pairs as having been notified and tested. Of these contact pairs, 12,867 (61%) knew they were exposed to HIV, 9,202 (44%) of all contact pairs and who were notified (Dalal et al., 2017). Partner notifications carried out by patients are considered good because patients have implemented partner notifications to prevent wider transmission of HIV and also help their partners to get HIV care, support and treatment services (Molton et al., 2016). Although there are still many found that the implementation of partner notification is very bad, this is because patients are not willing to provide information about their partners so they cannot get referrals to conduct HIV tests for their partners (Laar et al., 2018). This can be caused by the patient's feeling of shame or the desire of the partner who does not want people to know that he has HIV-AIDS (Grodensky et al., 2015).

Based on training indicators and the implementation of partner notifications to officers, that some health workers have received training and implemented partner notifications. The strategic steps that have been determined to increase the number of HIV and AIDs case detection include setting fast track targets for each Province/District/City; strengthening existing health human resources through various training and workshops (Kemenkes RI, 2020c). Respondents have received training and implemented partner notifications properly. In this indicator, patients are taught about partner notification in accordance with the Couple Notification Technical Instructions, patients are given Partner Notification Technical Instructions, and patients understand the partner notification referral method, however, there are still some patients who are willing to give consent and name the spouse/child and have networking/relationship with the

community to strengthen partner notifications (Andriyanto et al., 2022; Mahathir et al., 2020).

Based on the index case pair notification indicator in PDP, an average score of 1.7 was obtained, which means that the majority of respondents did not properly apply the index case pair notification in PDP. Targets who are entitled to offer community-based couple notifications are index case partners (ODHIV) who are at least 18 years old, either those who just know their HIV status or have known their HIV status for a long time, even though the index case is already undergoing ARV treatment or not (Gunawan et al., 2019). Notification of index case pairs has been implemented properly. Patients have been offered partner notifications when new patients enter the PDP service for the first time, but this tends to be done for new patients so that old patients feel that only a portion is offered for partner notifications (Mahathir et al., 2020). The patient has received an explanation about the method of notification of the partner chosen by the patient and its confidentiality and is willing to report the name of the partner then the patient gets protection from the officer for violence from the partner whose name is mentioned.

Based on the partner tracking and testing indicators, an average indicator score of 1.7 was obtained, which means that most respondents did not carry out partner tracking and HIV testing properly. The main activity of the couples notification and counseling service is contact tracing. Contact tracing of partners can be done by calling sexual partners (wives, husbands or girlfriends) who suffer from HIV to the clinic, tracing friends or groups sharing drug needles who suffer from HIV, who are in the same environment as the sufferer. They were given group counseling regarding their HIV exposure and the possibility of them being infected with HIV (Kemenkes RI, 2020b). Partner tracking and partner testing have also been carried out well. Patients understand and follow the procedures for the referral method. Patients are understood and followed, although some still understand and follow the

procedures for the contract referral method (Dalal et al., 2017). The patient already understands and follows the procedure for the health worker's referral method, understands and follows the procedure for the multiple referral method, understands and follows the procedure for the community referral method, but only a portion of the spouses/children who are detected HIV positive will enter PDP services including referrals out of service. All respondents have received prevention packages and routine HIV tests depending on the risks identified.

Nearly half of patients aged 26-35 years. Spouse notification is offered to all PLWHA aged over 18 years or for medical indications who have just been diagnosed with HIV, whether or not they have entered treatment, all PLHIV aged more than 18 years or for medical indications, both those who have just entered treatment or are continuing patients who fulfill one of the following criteria: one of the following conditions: VL status is not yet suppressed or unknown (Kemenkes RI, 2020c). In accordance with this theory, only a small proportion of patients are aged <17 years, but there are some patients aged <17 years who are offered to perform partner notifications so that they can be detected early.

Most of the patients have secondary education (SMA). Education affects the learning process, the higher a person's education, the easier it is for that person to receive information. With higher education, a person will tend to get information, both from other people and from the mass media. The more information that comes in, the more knowledge is gained about health. Knowledge is very closely related to education where it is hoped that higher education will also broaden knowledge. However, it should be emphasized that someone with low education does not necessarily mean that they have low knowledge. Increased knowledge is not absolutely obtained in formal education, but can also be obtained in non-formal education (Chewe & Khunou, 2023). Respondent education is related to the respondent's ability to receive counseling, because PDP services are tasked with providing counseling for patients, so that highly educated patients will find it easier to understand the importance of patient notifications to prevent transmission of HIV and AIDS.

Nearly half of the patients work privately. Companies with high employee mobility which results in them being away from their families and tend to engage in high-risk sexual behavior. Finally,

the implementation of the VCT at Work program in companies so that it is easier for companies to find out the condition of their employees compared to other workers who are not part of a large organization (Pramitasari & Aryani, 2018). Private workers are at high risk of contracting HIV AIDS because of their high mobility, so it is important to implement partner notifications to reveal the identity of sexual partners who are at risk of spreading HIV and AIDS transmission (Kemenkes RI, 2020b). Partner notifications are not only recommendations from one party, the patient or a health worker, this is because referrals from patients and health workers are jointly needed to make HIV patients aware.

## CONCLUSION

The results of the research showed that factors related to the notification of PLHIV partners include; age, education, and occupation. It was found that the application of partner notification was poorly practiced. Some of the patient's reasons were unwilling to provide information about their partner, feel embarrassed, did not want the partner to know about their HIV-AIDS status.

## SUGGESTION

Families are expected to provide support in being able to carry out proper care for PLWHA, such as delivering medication, reminding them to always maintain sexual behavior by using condoms, accompanying patients when counseling PDP service workers and encouraging patients to notify partners. Future researchers are expected to conduct further research with other variables that can be related to partner notifications or interventions that can make PLWHA aware of implementing partner notifications.

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## CONFLICTS OF INTEREST

There is no conflict of interest during the process until the publication of this research.

**AUTHOR CONTRIBUTIONS**

Arif Wicaksono (AW): Research proposals, research instruments, data analysis, literature review/analysis; references. Arief Andriyanto (AA): Research ideas, research proposals, research instruments, data analysis, research results, literature review/analysis; manuscript writing; references

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