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RESEARCH ARTICLE

URL of this article: <http://heanoti.com/index.php/hn/article/view/hn20218>

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## Analysis of Factor Affecting The Willingness of HIV Test on Mariners

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### ABSTRACT

Proportion of mariner that was willing to take HIV test was under 35% of mariners offered by health workers for test when performing medical check-up. The purpose of this study was to analyze the factors that affect the willingness of HIV testing on mariners at PHC Hospital Surabaya. The type of this research was analytic observational research with cross sectional research design. The population of this study were all mariners who performed medical check-up and offered for HIV testing at Primasatya Husada Hospital Citra Surabaya on July until October 2017. The sample of this study was several mariners who performed medical check-up and offered for HIV testing on July until October 2017. Sampling technique used was consecutive sampling and obtained 130 respondents. Based on the result of multivariable analysis, the results showed that the factors that affect the willingness of HIV test on mariners are low self-stigma  $p = 0.001$  and  $PR = 3.513$ ,  $CI\ 95\% : 1.645-7.502$ , perception of high susceptibility to HIV  $p = 0.00$  and  $PR = 4.640$ ,  $CI\ 95\% : 2.180-9.875$ , perception of high test benefit  $p = 0.00$  and  $PR = 4.168$ ,  $CI\ 95\% : 1.958-8.872$ , good friend support  $p = 0.003$  and  $PR = 3.022$ ,  $CI\ 95\% : 1.460-6.258$ . The necessity of declining HIV test counseling on mariners about the benefits of testing, HIV risk factors, and HIV testing principles especially regarding the confidentiality of HIV test results. Formation of trained peer education originating from mariners to provide information about HIV and encourage HIV testing of mariners.

**Keywords:** HIV/AIDS, Mariners, HIV Test

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### INTRODUCTION

#### Background

The development of the HIV and AIDS situation in the world was increasingly alarming. Since the first HIV cases have been found in Indonesia from 1987 to September 2016, HIV and AIDS spread over 407 (80%) of the 507 Districts/Cities across provinces in Indonesia. The cumulative finding of HIV and AIDS cases until September 2016 in Indonesia was 219,036 for HIV and 82,968 for AIDS<sup>(1)</sup>. Increasing numbers of HIV and AIDS cases also occur in East Java. The findings of cases that have been found since 1989 to September 2017 amounted to 64.5% of the estimates of PLWHA in 2016 that amounted to 43,646 cases of HIV with AIDS cases as many as 18,008 cases and 3,978. Surabaya was the city with the highest finding of HIV cases in East Java<sup>(2)</sup>.

The current increase in HIV and AIDS cases is dominated by contagion. The port is one of the most thrilling places to be the high risk man camping area. The harbor holds potential and facts that correlate with the shortage of port workers against contracting Sexually Transmitted Infections (STIs), HIV and AIDS. It's because of the risky masculinity of drinking, the behavior of couples, the low condom use, the behavior of self-medication, and the low awareness of health checks<sup>(3)</sup>.

According Hugo (2001) states that some sub-groups of people at high risk of HIV infection compared with other population groups, among others, transportation sector workers one of whom is a

mariner. Mariners are at risk of becoming infected with HIV because they are away from home for long periods of time and docked in ports that have the sex industry. Mariner are the highest mobility targets compared to the other male port target<sup>(4)</sup>.

Tanjung Perak Port is the main and largest class port in East Java. Tanjung Perak Port is one of the Ports implementing HIV and AIDS prevention and Control programs. Based on data from the KPA Surabaya city until March 2017 showed that the proportion of male port workers who are willing to perform HIV testing is still very low (under 30%) compared to male workers reached<sup>(5)</sup>. Primasatya Husada Citra Hospital (PHC) is an existing hospital in the Port of Tanjung Perak region that carries out HIV testing offer on Son of Ship. Based on data up to April 2017 indicating that the proportion of mariners willing to test HIV remains low under 35% of mariners offered for HIV testing by health workers<sup>(6)</sup>.

## METHODS

The type of this research was analytic observational research with cross sectional research design. The population of this study were all mariners who performed medical check-up and offered for HIV testing at Primasatya Husada Hospital Citra Surabaya on July until October 2017. The sample of this study was Several mariners who performed medical check-up and offered for HIV testing at Primasatya Husada Hospital Citra Kota Surabaya on July until October 2017 with inclusion criteria of mariners were male and willing to be respondents. Sampling technique used was consecutive sampling and obtained and 130 respondents. Data collection was done by interviewing respondents. Data was described in terms of frequency and percentage because the type was categorical<sup>(7)</sup>. Data analysis was performed using regression test.

## RESULTS

### Self Stigma

Table 1. Distribution of HIV test willingness to mariners based on self-stigma

Self-stigma	Willingness to HIV Test		Total	
	Willingness to test	Not willingness to test	n	%
Low	44 (75.9%)	14 (24.1%)	58	100.0
High	34 (47.2%)	38 (52.8%)	72	100.0
Total	78 (60.0%)	52 (40.0%)	130	100.0

Based on the results of the study can be seen that respondents who are willing to perform HIV testing has a low self-stigma of 75.9%. Based on the results of simple logistic regression test in table 1 the result of  $p = 0.001$  and Prevalence Ratio (PR) = 3.513 CI 95%: 1.645-7.502. This suggests a stigma in the self against the willingness of the mariners' HIV tests. Mariners with low self-stigma risk 3.513 times for HIV testing with mariners who have high self-stigma.

### Perception of High Susceptibility to HIV

Table 2. Distribution of HIV test willingness to mariners based on perception of high susceptibility to HIV

Susceptibility perception	Willingness to HIV test		Total	
	Willingness to test	Not willingness to test	n	%
High	59 (74.7%)	20 (25.3%)	79	100.0
Low	19 (37.3%)	32 (62.7%)	51	100.0
Total	78 (60.0%)	52 (40.0%)	130	100.0

Based on the results of the study it can be seen that respondents who are willing to test HIV have a perception of susceptibility to HIV and AIDS is high as much as 74.7%. Based on the results of simple logistic regression test in table 2 obtained p value = 0.000 and Prevalence Ratio (PR) = 4.640 CI 95%: 2.180-9.875. This suggests that the perception of susceptibility to HIV and AIDS affect the willingness of HIV testing in mariners. Mariners with a high perception of vulnerability are at risk 4.640 times for HIV testing compared with mariners with low susceptibility perceptions.

### Perception of High Test Benefit

Table 3. Distribution of HIV test willingness to mariners based on perception of high test benefit

Benefit perception	Willingness to HIV test		Total	
	Willingness to test	Not willingnes to test	n	%
High	49 (76.6%)	15 (23.4%)	64	100.0
Low	29 (43,9.0%)	37 (56.1%)	66	100.0
Total	78 (60.0%)	52 (40.0%)	130	100.0

Based on the results of the study it can be seen that respondents who are willing to perform HIV testing have a high perception of the benefits of HIV testing as much as 76.6%. Based on the results of simple logistic regression test in table 3 obtained p value = 0.00 and Prevalence Ratio (PR) = 4.168 CI 95%: 1.958-8.872. This suggests that the variables of benefit perception of HIV testing have an effect on the willingness of HIV testing in mariners. Mariners who have a high perception of the benefits of HIV testing are at risk 4.168 times for HIV testing compared with mariners who have low perceived benefits.

### Friend Support

Table 4. Distribution of HIV test willingness to mariners based on friend support

Friend support	Willingness to HIV test		Total	
	Willingness to test	Not willingness to test	n	%
Good	51 (71.8%)	20 (28,2%)	71	100.0
Low	27 (45.8%)	32 (54,2%)	59	100.0
Total	78 (60.0%)	52 (40.0%)	130	100.0

Based on the results of the study it can be seen that respondents who are willing to test HIV have good friend support as much as 71.8%. Based on the results of simple logistic regression test in table 4 obtained p value = 0.003 and Prevalence Ratio (PR) = 3,022 CI 95%: 1,460-6,258. This suggests that the perception of peer support variables influences the willingness of the mariners' HIV test. Mariners who have good friend support are at risk 3,022 times for HIV testing compared to sailors who have low friend support.

## DISCUSSION

### Self-Stigma

Self-stigma is a negative self-stamp against HIV AIDS. A negative stamp is feeling embarrassed about HIV disease, feeling worthless and valued, feeling as being a problem-bearer and feeling unfit to be human if infected with HIV. The presence of a negative stigma within a person towards HIV is manifest in a person's closed behavior, one of which is to know their HIV status. Someone is afraid to take an HIV test for fear of a positive outcome that gets a negative stamp from the environment<sup>(8)</sup>. Stigma and discrimination against people living with HIV will have an impact on HIV prevention efforts such as a person unwilling to test HIV for fear of stigma and discrimination if the test results are positive<sup>(9)</sup>. Stigma remains a major issue in the fight against HIV and AIDS. Stigma contributes to

determining one's openness to HIV prevention and treatment. Someone is reluctant to test HIV for fear of getting stigmatized if they know their HIV status<sup>(10)</sup>. Based on the result of the research, it is found that the stigma in self affects the willingness of HIV test on seafarers. This is in line with the research of Hirut (2014) which states that the fear of stigma and discrimination is a perception factor that inhibits the use of VCT<sup>(11)</sup>.

### **Perception of high susceptibility to HIV**

Perception of high susceptibility to HIV make a person willing to test HIV. Perceptions of perceived susceptibility refer to beliefs about the possibility of getting the disease. Every individual has his own perception of the possibility of experiencing a condition that will harm his health. Individuals vary in their perception of susceptibility to disease. Those who consider themselves at low risk deny the possibility of contracting an adverse condition. People who are at high risk for susceptibility feel there is a real danger that they will experience adverse conditions or contracting certain diseases<sup>(12)</sup>. Based on the results of the research, it was found that the perception of susceptibility to HIV/AIDS had an effect on the willingness of HIV test on mariners. This is in line with Teklehaimont's research, et al (2016) which states that men who are considered themselves at small risk of HIV are 1.86 (95% CI; 1.15-3.02) times more likely to receive VCT compared with those who are considered to have no risk<sup>(13)</sup>.

### **Perception of High Test Benefit**

Perceived effectiveness refers to the benefits involved in protective behavior. Motivation to take action to change behavior requires the belief that effective preventive behavior prevents the condition. For example, mariners will consider the benefits they will gain if they test HIV<sup>(12)</sup>. Based on the results of the study it was found that the perception of benefits of HIV testing had an effect on the willingness of HIV test on mariners. This is in line with the Yenew, *et, all* (2010) study of high awareness about the benefits of HIV testing causing one to perform HIV testing (OR = 3.14; 95% CI: 1.77-5.50)<sup>(14)</sup>.

### **Friend Support**

Friend support is the attitude, action, and acceptance of friends. Friend support consists of 4 components, namely emotional support, instrumental support, information support and praise support. Friends in the working environment for mariners are the ones closest to everyday life when sailing like a family. Friends act as motivators, spirits, reminders, advisers, information sharing and support givers whose overall includes four components of peer support. If these 4 components of support are obtained maximally then it will increase self-motivation to test HIV<sup>(15)</sup>. Based on the results of the research, it was found that the support of friends had an effect on the willingness of HIV test on mariners. This is in line with the Arniti (2014) study suggesting that the support factor of the husband is associated with the acceptance of HIV testing in pregnant women. Pregnant women who receive good support from their husbands or families are 9 times greater than those who do not get support from a poor husband or family (OR = 8.711; 95% CI: 2.887-26.279)<sup>(16)</sup>. Babakova, et al (2015) suggests that the support of friends significantly decreases the problem of access to health in Rome<sup>(17)</sup>.

## **CONCLUSION**

Self-stigma, perception of high susceptibility to HIV, perception of high test benefit, and friend support affects the willingness of HIV testing on mariners.

Recommendation from this study was socialization to be given mariners that that HIV/AIDS positive workers are entitled to occupational health services. This is the right to work in accordance with applicable legislation in order to provide insight to give understanding and can minimize the presence of self stigma. The necessity of declining HIV test counseling on mariners about the benefits of testing, HIV risk factors, and HIV testing principles especially regarding the confidentiality of HIV test results. Formation of trained peer education originating from mariners to provide information about HIV and encourage HIV testing of mariners.

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