Overview of Health Beliefs of PLWHA Based on the Health Belief Model in Jombang Regency

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ABSTRACT

HIV/AIDS cases in Indonesia seen in the Asian Epidemic Modeling and Spectrum applications are estimated to be around 543,100 PLWHA spread across Indonesia. Many factors that affect the survival of PLWHA can be seen from the perception of vulnerability, perception of severity, perception of benefits and perception of cues seen in the Health Belief Model theory. The purpose of this study was to determine the health beliefs of PLWHA with the Health Belief Model theory approach. This study used a cross-sectional approach study conducted in Jombang Regency with a population of PLWHA who had access to ARVs and in the scope of the Peer Support Group (KDS JCC Plus) of 666 people. With a sample of 250 obtained. The sampling technique used systematic random sampling. The variables in this study consisted of Independent variables (X1) namely Perception of Vulnerability, X2 namely Perception of Severity, X3 namely Perception of Benefits of action, X4 namely Perception of Barriers, X5 namely perception of Cues to act. With the dependent variable (Y) namely the behavior of PLWHA. Respondents have a high level of perception of vulnerability in the statement item Using condoms during sex will reduce the risk of transmission. Anal sex without using lubricant will cause the genitals or anus to become sore and transmission occurs, becoming the highest average perception of seriousness in this study. In the perception of benefits, it can be seen that respondents feel safe using condoms during sex. seen that respondents agree that they can still work even though when having sex they use condoms and lubricants are not an obstacle for them. In the statement of action cues, the highest value was obtained in the statement item "With the information I get, I will practice safe sex. It can be concluded that all perceptions have a high average value on question items with contexts related to sexual relations and the use of contraceptives. On average, PLWHA have high confidence in continuing life positively.

Keywords: HIV/AIDS, Health Belief Model, Perception

INTRODUCTION

The virus that attacks the immune system (white blood cells/CD4) is the Human Immunodeficiency Virus (HIV). The virus causes the body to be unable to fight diseases that attack the body. While Acquired Immunodeficiency Syncrome (AIDS) is a condition of someone who has HIV infection and experiences severity. The way of transmission of HIV infection is through shared injection equipment, breast milk, blood, or sexual intercourse (RI K. K., 2023).

Of the 37.7 million people living with HIV at the end of 2020, more than two-thirds

(25.4 million) were in the African Region. In 2020, 680,000 (18%) people died from HIV-related causes and 1.5 million people were infected with HIV. The HIV epidemic with the application of Asian Epidemic Modeling and Spectrum is estimated to have around 543,100 PLWHA spread across Indonesia. WHO data only 36% of PLWHA accessed Antiretrovirals and 76% experienced suppression of their viral load 34% were not compliant with Antiretroviral treatment in Indonesia PLWHA who were not compliant with Antiretroviral therapy including those who passed monitoring and stopped treatment were recorded at 74% cumulatively from 2010 to March 2021 who accessed Antiretroviral therapy only 26% of the total PLWHA as many as 427,201 people, AIDS cases totaled 131,417. East Java Province is ranked 2nd after Jakarta, with 39,633 cases reported, with details of 21,390 HIV cases and 18,243 AIDS cases, and 37.71% or 14,233 people died. (Timur, 2021).

Data from the Jombang Regency Health Office in 2022, the number of people with HIV/AIDS was 1,981 people, 27% died). The number of new cases of HIV continues to increase, in 2021 212 were found, in 2022 243 people were found, 16% were adolescents aged <19 years, 21% had not received ARV therapy and 16.6% died, the prevalence of the most opportunistic infectious diseases in PLWHA was pulmonary TB as many as 36 PLWHA (2%), Sexually Transmitted Infections (STIs) as many as 23 PLWHA (1.1%), Fungal diseases (Candidiasis) as many as 3 PLWHA (0.01%). there were 70% PLWHA with compliance> 95%, 9% with compliance (80-95%) and 14% PLWHA with compliance.

Efforts have been made by the Indonesian government in an effort to reduce or eliminate HIV/AIDS. One of the factors that influences the suboptimal efforts is discrimination, negative stigma towards PLWHA themselves. (RI K. K., Stigma Negatif Masyarakat Hambat Eliminasi HIV AIDS di Indonesia, 2021). In addition to the negative stigma received by sufferers, the influence within also affects the severity of the disease. Such as the perception held by an PLWHA.

Perception is a person's process in managing and expressing an impression received to their environment. Perception is one of the main components in the Health Belief Model (HBM) theory which describes the perception of vulnerability, perception of severity, perception of benefits and perception of cues. This perception can influence a person in acting (Maleki, Derakhshani, Azami-Aghdash, Naderi, & Nikoomanesh, 2020)

The self-perception experienced by HIV/AIDS sufferers can also affect mental health which can have an impact on well-being, anxiety, and can increase the risk of suicide or attempted suicide. (RI K. K., 2025).

Health is the key for someone to be able to do their daily activities. Mental health also has an important role for someone to be able to think positively and stay enthusiastic about their life. According to (Buglar, 2010)Perceived Barriers are components that have a negative impact on individuals that will become barriers to having healthy behavior, the purpose of the Health Belief Model theory in dealing with a problem is the perceived barriers to change. Negative stigma and discrimination obtained by PLWHA often affect the decline in enthusiasm for life which then has a major effect on the decline in the quality of life of PLWHA (Umardani, et al., 2021).

Quality of life is a concept related to the achievement of human life as desired. In the health sector, this concept is known as 'Health-related Quality of Life' which was developed to show the quality of a person's life as measured by health status, disease history, and aging process. (Tobiasz-Adamczyk, 2013).

Based on the background above, researchers want to know the description of PLWHA's health beliefs using the Health Belief Model theory approach.

METHODS

This study used a descriptive study with a cross-sectional approach. This study was conducted in Jombang Regency with a population of PLWHA who had access to ARVs and in the scope of the Peer Support Group (KDS JCC Plus) of 666 people. With a sample of 250 obtained. The sampling technique used systematic random sampling. The research was conducted from June to August 2024. The variables in this study consisted of Independent variables (X1), namely Perception of Vulnerability, X2, namely Perception of Severity, X3, namely Perception of Benefits of action, X4, namely Perception of Barriers, X5, namely perception of Cues to act. With the dependent variable being the behavior of PLWHA. This study has conducted an ethical test at IIK STRADA Indonesia with the number: 000557 / EC / KEPK / I / 12/2023. The measuring instrument in this study used a questionnaire that had been tested for validity and reliability with a value greater than 0.7.

RESULTS

A.   Respondent Characteristics

Table 1. Respondent Characteristics

Characteristics	Category	Frequency (f)	Percentage (%)
Age	15-24 Years	87	34.8
	25-35 Years	121	48.4
	>45 Years	42	16.8
Marital status	Not Married	103	41.2
	Marry	146	58.4
	Widow/Widower	1	4
Gender	Man	200	80
	Woman	50	20
Education	SD	3	1.2
	JUNIOR HIGH SCHOOL	22	8.8
	SENIOR HIGH SCHOOL	186	74.4
	College	39	15.6
Work	Farmer	25	10.0
	Self-employed	66	26.4
	Civil Servants/TNI/POLRI	20	8.0
	Doesn't work	0	0
	Other	139	55.6
Income	< 3,500,000	103	41.2
	3,500,000 – 4,500,000	147	58.8
	>4,500,000	0	0
Long Illness	< 1 Year	47	18.8
	1-5 Years	128	51.2
	6-10 Years	40	16.0
	>10 Years	35	14.0

The calculation results in the table above show that out of 250 respondents, the age category of most respondents (48.4%) is between 25-39 years old. As many as 200 respondents are dominated by male respondents (80%). Respondents with a percentage of 55.6% have other jobs outside the job categories listed in the choices. Most respondents have an opinion in the range of 3,500,000-4,500,000 (58.8%) and the duration of illness is dominated by 1-5 years as many as 128 respondents (51.2%).

B.   Data on Variables Related to Perception
1.   Frequency Variable of PLWHA Perception Factor
Table 2. Frequency of PLHIV Perception Factors

Variables	Category	Frequency	Percentage (%)
Perception	Positive	187	74.8
	Negative	63	25.2

Table 2 shows that the respondents' perceptions are dominated by positive perceptions, meaning good, amounting to 187 (74.8%) with a mean value (=0.748).

2.   Frequency Distribution of Perceived Vulnerability Statement Items
Table 3. Frequency Distribution of Perceived Vulnerability Statement Items

No	Statement	1	2	3	4	5	Mean
1	People with HIV/AIDS are at high risk of transmitting the disease to others.	0	6	13	189	42	4.068
2	Changing partners during sexual intercourse but not using a condom does not transmit the virus.	0	10	4	188	48	4.096
3	Anal and oral sex without using condoms and lubricants can transmit HIV.	0	2	20	8	220	4.784
4	Using a condom during sex will reduce the risk of transmission.	0	1	13	13	223	4,832
5	It is not always the case that people who look clean are free from HIV infection.	0	2	18	179	225	4.116
6	Being exposed to the semen of someone with HIV/AIDS can put you at risk of contracting the disease.	0	1	186	84	210	4.416

From the data in table 3 we can see that the statement itemsUsing condoms during sex will reduce the risk of transmission is the item most felt by respondents. It has a mean value of 4,832.

3.   Frequency Distribution of Perceived Seriousness Statement Items
Table 4 Frequency Distribution of Perception of Seriousness Statement Items

No	Statement	1	2	3	4	5	Mean
1	I am infected with HIV/AIDS, so I will be immune to other diseases.	0	0	15	19	216	4,804
2	I am infected with HIV, so I will seek treatment to reduce my exposure to HIV.	1	2	3	20	304	4.856
3	I am infected with HIV, I will be susceptible to other diseases.	0	0	200	10	40	3.36
4	By using a condom, the HIV/AIDS virus cannot spread in the mouth during oral sex.	0	0	12	195	43	4.124
5	Anal sex without using lubricant will cause the genitals or anus to become sore and infection can occur.	0	2	2	21	225	4.876

In the statement of perception of seriousness, the largest average value is shown by the statement regardingAnal sex without using lubricant will cause the genitals or anus to become sore and there will be transmission of 4,876. This value shows that respondents strongly agree

that during sex if not using a pelican causes the genitals to become sore. Respondents are aware that if this is violated it will hurt their partner or themselves.

4. Frequency Distribution of Perceived Benefits Statement Items

Table 5. Frequency Distribution of Perceived Benefits Statement Items

No	Statement	1	2	3	4	5	Mean
1	Using a condom during sex with a partner will reduce the risk of HIV transmission.	0	2	4	201	44	4.152
2	Using flavored condoms will add to the sensation during oral sex.	0	0	19	13	218	4.796
3	Using lubricant during anal and oral sex will reduce the risk of HIV/AIDS transmission.	0	175	21	10	44	2,692
4	Flavored condoms add more sensation than unflavored condoms.	0	1	14	19	216	4.8
5	I don't use condoms because access to them is difficult.	0	8	6	10	226	4.816
6	By using a condom I feel safe.	0	2	9	12	227	4.856

Table 5 explains that by using condoms, respondents feel safe during sexual intercourse, with an average value of 4,856. As many as 227 respondents strongly agree that using condoms can assure themselves of being safe from the spread of HIV/AIDS.

5. Frequency Distribution of Perceived Barrier Statement Items

Table 6. Frequency Distribution of Perceived Barrier Statement Items

No	Statement	1	2	3	4	5	Mean
1	Using a condom during sex will reduce the pleasure I get from sex.	0	1	14	197	38	4.088
2	By using a condom, my sex still feels good.	0	0	2	30	218	4,864
3	I don't use condoms during sex because I have allergies.	1	0	5	208	36	4.112
4	I will still earn income even if I continue to use condoms and lubricants during sex.	0	0	2	24	224	4.888
5	The procedure for taking ARVs is very complicated in my opinion.	0	1	2	204	43	4.156
6	It costs a lot of money to access ARVs	0	0	1	197	52	4.204

Respondents felt that if they were going to keep earning, they would still use condoms and lubricants during sex. The average answer was agreeing with the statement.

6.   Frequency Distribution of Cue to Action Perception Statement Items

Table 7. Frequency Distribution of Action Cue Perception Statement Items

No	Statement	1	2	3	4	5	Mean
1	From now on I will get used to taking my medicine regularly.	0	0	6	15	229	4.892
2	My family does not support me to take medication regularly.	0	0	177	25	48	3.484
3	Taking ARVs is something that is easy to do without consideration.	0	0	3	25	222	4.876
4	With the information I get I will practice safe sex.	1	0	1	20	228	4.896
5	With the information I got, I will take ARVs on time and in the right dosage.	0	2	1	190	57	4.208
6	With the information I got, I will take ARVs regularly even though I have a few complaints after taking them.	0	3	2	196	49	4.164

From table 7 the statement item "DWith the information I get, I will practice safe sexual behavior" in the statement of perception of cues to action has the highest average value of 4.896."

DISCUSSION

Based on the results of the study, it shows that the perception of PLWHA respondents is good regarding their quality of life. This certainly occurs because there are factors that influence it. Factors that cause a PLWHA's perception of their quality of life to be good include social support, compliance with taking medication and duration of ARV therapy, diagnostic criteria and opportunistic infections, stigma, discrimination and depression. (Maharani, Hardianti, & Ikhsan, 2021).

The Health Belief Model theory has limited variables that include a focus on a person's motivation to want to recover. The HBM construct includes perceptions of susceptibility to disease, perceptions of seriousness, perceptions of benefits, perceptions of barriers and self-efficacy. (Fauziah, 2018).

1.   Perception of Vulnerability

Perception of vulnerability is a person's feeling of being at risk of a situation and feeling threatened. In this study, the statement items "People with HIV/AIDS are at high risk of transmitting the disease to others" have a value (mean = 4.068), "Changing partners during sexual intercourse but not using condoms does not transmit the value (mean = 4.096). "Anal and oral sex without using condoms and lubricants can transmit HIV" value (mean = 4.784). "Not always people who look clean are free from HIV infection" with a value (mean = 4.116). "Exposed to sperm of people with HIV/AIDS can be at risk of infection" with a value (mean = 4.416). Respondents have a high level of perception of vulnerability in the statement item "Using condoms during sex will reduce the risk of transmission" with a mean value of 4.832. This means that respondents feel that the threat of transmission will be reduced if they use condoms during sex.

2.   Perception of Seriousness

Anal sex without using lubricant will cause the genitals or anus to become sore and transmission occurs, becoming the highest average perception of seriousness in this study. This occurs because the perception of individual seriousness can be seen through the degree of severity both medically and emotionally. The perception of seriousness felt by someone who has a high risk of HIV/AIDS will vary. This is because each person at high risk has a subjective view of the seriousness of HIV/AIDS. One variable that may influence people at high risk in

feeling the seriousness of HIV/AIDS so that it encourages them to take advantage of prevention (Purwaningsih, Misutarno, & Imamah, 2011).

3.   Perception of Benefits

Perceived Benefit is a person's acceptance/susceptibility to a condition that is believed to cause seriousness (perceived threat) that encourages to produce a force that supports behavioral change. This depends on a person's belief in the effectiveness of various available efforts in reducing the threat of disease, or the perceived benefits of taking health efforts.

In the perception of benefits, it can be seen that respondents feel safe using condoms during sex. With the majority of respondents agreeing with the statement. The use of condoms is considered to be able to prevent the transmission of HIV/AIDS, such as research that has been conducted that if there are family members who have husbands/wives with HIV/AIDS and have a high risk, then to prevent transmission, use condoms. (Khairani, 2023).

4.   Perception of Barriers

Perceived barriers are perceived obstacles to change, or when individuals encounter obstacles encountered in taking action. Negative aspects of a health effort (such as uncertainty, side effects), or perceived barriers (such as worry about not fitting in, not enjoying it, being nervous), may act as barriers to recommending a behavior.

Respondents' sense of worry about themselves has a low value. Where in the statement of obstacles (obstacles that can affect the respondent's actions) in the statement item "I will still earn income even though I still use condoms and lubricants when having sex" it can be seen that respondents agree that they can still work even though when having sex they use condoms and lubricants are not an obstacle for them.

5.   Perception of Action Cues

In the statement of action cues, the highest value was obtained in the statement item "With the information I get, I will practice safe sex" with a mean value of 4,896. By providing information, it can influence the knowledge and attitudes of respondents. As research conducted by Ennimay (2024) stated that there was an influence of Brief Psychoeducation on knowledge and reducing self-stigma as an effort to reduce the problems faced by PLWHA in socializing and quality of life. (Ennimay, Safri, & Noer, 2024).

CONCLUSION

The perception felt by HIV/AIDS sufferers affects the behavior of sufferers. From the results of the study above, it can be concluded that all perceptions have a high average value on question items with contexts related to sexual relations and the use of contraceptives. On average, PLWHA have high confidence to continue life positively.

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