

Application of Theory of Planned Behavior on Periodic Testing among People Living with HIV/AIDS in Jombang, East Java, Indonesia

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ABSTRACT

Background: HIV/AIDS is one of the sexually transmitted diseases that is still high in the world. As many as 650,000 people died from this disease, around 38.4 million people were living with HIV/AIDS (PLWHA), by the end of 2021 with 1.5 million people newly infected with HIV. This study aimed to explore the behavior of people with HIV/AIDS based on the theory of planned behavior.

Subjects and Method: A qualitative design with a case study approach was conducted at the Jombang District Health Service, Jombang Care Center, and the Kabuh Community Health Center Work Area. A total of 5 key informants, 10 people with HIV/AIDS as main informants, 1 supporting informant were selected purposively and snowballed. Data collection was carried out by interviews, observation, documentation (taking photos and reviewing control cards of people with HIV/AIDS). Data were analyzed using the Miles and Huberman method.

Results: Behavioral intentions are related to the behavior of regular examinations in PLWHA. Attitudes are related to the behavior of regular examinations of PLWHA. Subjective norms are related to the behavior of regular examinations in PLWHA. Perceived behavioral control is related to the behavior of periodic examinations of PLWHA in Jombang Regency, East Java.

Conclusion: Informants have high intentions or positive intentions to carry out periodic examinations aimed at maintaining their health so that it is much better. Informants accept and believe that with regular check-ups their body condition and health will be much better. The role of family and peer support groups is stronger than the influence of health workers. All key informants had positive control behavior to carry out examinations at community health centers that were not close to where they lived when the service from health workers was non-discriminatory and provided accurate information.

Keywords: theory of planned behavior, periodic inspection, PLWH, HIV, AIDS.

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BACKGROUND

Human Immunodeficiency Virus (HIV) is a type of virus that infects white blood cells, causing a decrease in human immunity. Acquired Immune Deficiency Syndrome (AIDS) is a group of symptoms that arise due to a decrease in the body's immunity caused by HIV infection. HIV/AIDS is one of the sexually transmitted diseases that is still high in the world. HIV/AIDS has an increasing number of cases every year, both nationally and globally. In 2021, as many as 650,000 people died from this disease, around 38.4 million people living with HIV/AIDS (PLWHA), at the end of 2021 with 1.5 million people newly infected with HIV (WHO, 2021).

In Indonesia, the estimated number of people with HIV in 2020 was 543,100 people with a total of 29,557 new infections with 30,137 deaths. Positive HIV cases are the lowest since the last four years, namely 36,902 cases, and the number of AIDS cases in Indonesia tends to decrease and in 2021, it was reported that 5,750 cases reported from year to year tend to increase (Ministry of Health of the Republic of Indonesia, 2022).

The therapy that has been prepared for HIV/AIDS patients is to take antiretroviral (ARV) for life. This therapy is carried out to suppress the replication of the HIV virus in the patient's blood. The use of this drug must be with high compliance by the patient taking it so that this therapy can be effective and successful. To achieve optimal levels of viral suppression, at least 90-95% of all ARV doses must be consumed by the patient in accordance with the instructions given, if not routinely it will have an impact on a slow decrease in CD4 (Cluster of differentiation), CD4 in the body is a single chain as a marker immune health status. CD4 is a type of white blood or lymphocyte, CD4 examination can be done

to complete a clinical examination which can determine whether the patient needs prophylactic treatment for opportunistic infections and ARVs (Nurmawati et al., 2019).

Viral load examination reflects the amount of HIV replication in the body. The function of ARV therapy is to suppress the viral load until it reaches undetectable levels. At this level the CD4 count will increase and the risk of opportunistic infections will decrease (UNAIDS, 2021). Viral load provides a measure of infectivity meaning people with low or suppressed viral loads have much lower rates of transmission. In addition, viral load can confirm ARV therapy failure when viral load levels are still ≥ 1000 copies/mL (Ministry of Health, 2021).

Care and support programs for PLWHA by services must be supported by efforts to raise awareness of care and support from PLWHA themselves independently in accordance with the aim of empowering PLWHA independently, both physically and psychosocially. The weak immune system of PLWHA should be a warning for PLWHA to better maintain their health through periodic diagnostic examinations in Jombang Regency, East Java. PLWHA still do not have sufficient awareness and good behavior regarding care and support, especially regular examinations to improve their quality of life.

The HIV/AIDS figure in East Java was recorded at 6,145 new HIV/AIDS cases in examination activities carried out from January to October 2021 and the cumulative cases were 84,959 cases. Meanwhile, data from the Jombang Health Office from January 1 to April 28 2022 of 2,177 HIV/AIDS sufferers recorded 43 new cases of HIV/AIDS. The most common attacks are those aged 25 to 49 years. Several risk factors for AIDS are bisexual, transfusion,

perinatal, homosexual, heterosexual and use of injection needles, and the most common are heterosexual and homosexual (Ministry of Health of the Republic of Indonesia). In previous research, it was also stated that IDUs (Injection Drug Users) had a 2.17 times risk of contracting HIV/AIDS compared to non-IDUs for HIV/AIDS, and this result was statistically significant (Saputri et al., 2023). This study aimed to explore the behavior of people with HIV/AIDS based on the theory of planned behavior.

SUBJECTS AND METHOD

1. Study Design

A qualitative design with a case study approach to explore views about intentions, attitudes, subjective norms, behavioral control of PLWHA regarding periodic examination behavior. This research was conducted at the Jombang District Health Service, Jombang Care Center and Kabuh Community Health Center Work Area, Jombang Regency, East Java, Indonesia in June 2023.

2. Study Informants

The population in this study were all people with HIV/AIDS. The sampling technique in this research used purposive sampling and snowball sampling techniques. The sample in this study consisted of 16 informants,

including 5 key informants for health workers, 10 key informants for people living with HIV/AIDS, 1 key informant for HIV cadres.

3. Study Instruments

Data collection was carried out using semi-structured interviews, observation, and document review (control cards for people with HIV/AIDS). Data validity is achieved using data triangulation (Murdiyanto, 2020), or by comparing observation data, interview results, and document review.

4. Data Analysis

Data analysis used the Miles and Huberman technique (1992) with steps of data collection, data reduction, data presentation, drawing conclusions and verification (Rijali, 2018).

RESULTS

1. Characteristics of Informants

The number of informants for this research is 16 informants consisting of the people of Jombang City, 5 key informants who work in Government Agencies and Non-Governmental Organizations, 10 main informants who come from PLWHA who on average have less than high school/high school education, most of them work as entrepreneurs, salary per month is in the range of 150 thousand to 2.5 million, and 1 supporting informant comes from HIV cadres.

Table 1. Characteristics of informants

Informant Categories	Informant Code	Gender	Education
Key Informants	Mrs. MR	Female	Bachelor Program
	Mrs. SP	Female	Bachelor Program
	Mr. MF	Male	Bachelor Program
	Mr. K	Male	Senior High School
	Mr. A	Male	Senior High School
Supporting Informant Main informant	Mrs. E	Female	Senior High School
	Mrs. S	Female	Junior High School
	Mrs. Z	Female	Junior High School
	Mrs. R	Female	Senior High School
	Mr. N	Male	Bachelor Program
	Mr. Y	Male	Senior High School
	Mrs. M	Female	Senior High School

Informant Categories	Informant Code	Gender	Education
	Mr. Z	Male	Bachelor Program
	CH (child)	Female	Primary School
	Mr. K	Male	Senior High School
	Mr. S	Male	Senior High School

2. Intention to behave with periodic inspection behavior

Periodic examination intentions have been proven to be a good predictor of subsequent behavior, and understanding periodic examination intentions among PLWHA is very important because it is the most effective strategy to change behavioral attitudes. Quote from interview with informant Mr. and is positive towards the behavior of periodic examinations of PLWHA in Jombang Regency.

All people with HIV/AIDS have the intention to undergo regular examinations because they want to be healthy and in good condition so they can carry out their daily activities.

3. Attitude towards behavior with periodic inspection behavior

There is a relationship between behavioral beliefs and the behavioral attitudes of PLWHA in carrying out periodic examinations. Interview excerpts from informant Mr. N.

"It has an impact, sis. I used to underestimate it. Whether I'm sick or not, it's up to me, I've given up, now I'm obedient and routine for my survival..."

They accept and are aware that regular examinations have a big impact on their condition and health which is much better after carrying out routine examinations and treatment, thus influencing the behavioral attitudes of PLWHA.

Attitudes towards behavior are determined by the individual's evaluation of the results related to the behavior and the strength of the relationship. The evaluation of behavioral results is related to the

attitude towards the behavior of periodic examinations of PLWHA in Jombang Regency, East Java. Most informants have an evaluation that a behavior will produce positive consequences, so the individual will behave well. to this behavior and vice versa. Excerpt from interview with informant Mr. A, as stated by the informants, they accept and carry out routine examinations when they understand the positive impact of regular examinations on their bodies and when PLWHA receive information from health workers and companions.

4. Subjective norms with periodic inspection behavior

There is a link between subjective norms and the behavior of periodic examinations of PLWHA in Jombang Regency, where the influence of subjective norms on intentions is indirectly through behavioral intentions. It was discovered that all informants had the belief that individuals or groups who were quite influential on them would receive the new status of PLWHA and always support carrying out periodic checks, so this would be an encouragement for PLWHA to comply with these people's recommendations.

Subjective norms in environmental support, excerpt from interview with informant Mrs. MR.

"Yes, of course... HIV is still a disease that has a stigma in society, so sometimes people with HIV can't stand alone, of course they really need support both internally and externally..."

The social factor is very important because it is one of the supports for them.

In the future, what is important is family? Most of the informants said that support is very closely related and the most important thing is from their own family, but some said that their partner is also very important, with support from family and those closest to them they will be more enthusiastic about carrying out regular check-ups, as well as There were questions regarding the influence of the role of family, community and peer support groups in carrying out periodic examinations. The informant answered that their role was very influential in the treatment process, providing encouragement, as a reminder to take medication regularly and routinely check in at the Community Health Center, for the role of the community.

5. Control perceived behavior with periodic checking behavior

All informants have past experience, anticipating obstacles that might occur, having a person's perception about the ease or difficulty of certain behavior, such as the ease and difficulty of getting access to health services, stigma and discrimination among health workers, and getting rights and information about periodic examinations in Jombang Regency.

The perception of supporting power shows that there is a positive influence of perceived behavioral control on periodic examinations among PLWHA in Jombang Regency. Almost all informants said that periodic examination services were opened at community health centers that were close to them, but they preferred to check at community health centers that were far away because the health workers were friendly and the service was good.

"Support is the most important thing from the partner from the family and the surrounding community, otherwise...they are increasingly down and finally they refuse the diagnosis...on

average PLHAs don't want the public to know about their condition because it will isolate them.. (Mrs. Sp)"

"That's it ma'am, the first thing to check is that the community health center is not a good officer, he is rude, bitchy and not friendly. Finally moved to the health center. Now it's delicious. It's really necessary, ma'am, thank you, Mas Ari and his friends.. (Mrs. R)"

DISCUSSION

The results of the research show that there is a relationship between behavioral intentions and periodic examination behavior in PLWHA. That behavioral intentions are directly related and positive to the behavior of examining PLWHA in Jombang Regency. All informants interviewed stated that they had the intention of carrying out regular examinations so that their bodies were healthy even though they had to undergo examinations and treatment throughout their lives. Informants with new or old HIV/AIDS patients have a strong intention to carry out regular examinations. Regarding behavioral intentions towards behavior, this is in line with Ajzen's theory (2020), that intention is the subjective probability that a person has to carry out a certain behavior.

Intention will remain a behavioral tendency until at the right time an effort is made to change that intention into behavior. Intention is an antecedent of a visible behavior. The results of this research are not in line with Fishbein and Ajzen (2005) who explain that a person's intention towards behavior is formed by two main factors, namely attitude toward the behavior and subjective norms.

The research results show that attitudes towards behavior are related to regular examinations of PLWHA. All informants interviewed stated that they had a

positive attitude towards carrying out periodic inspections indirectly, namely indirectly through behavioral intentions. This shows how big the influence of the relationship is, where the indirect influence of the relationship can be explained by the influence of attitudes towards periodic inspection behavior on behavioral intentions is positive. This means that the better the attitude towards the behavior of periodic examinations of PLWHA in Jombang, the behavior of periodic examinations of PLWHA will be routine. Generally, attitudes towards the behavior of periodic examinations of PLWHA have an evaluation that a behavior will produce positive consequences, so individuals will tend to have a favorable attitude towards this behavior. On the other hand, PLWHA have a negative evaluation, so PLWHA will tend to have an unfavorable attitude towards this behavior. This is in line with research by Ajzen (2020), that in general the more an individual has an evaluation that a behavior will produce positive consequences, the individual will tend to have a favorable attitude towards that behavior, conversely, the more an individual has a negative evaluation, the more the individual will tend to have an unfavorable attitude towards that behavior. (Ajzen, 2020).

There is a positive influence between attitudes towards periodic inspection behavior and periodic inspection behavior indirectly through behavioral intentions. This suggests that PLWHA who have an attitude towards periodic examination behavior will influence the behavior or attitudes of PLWHA so that the periodic examination behavior of PLWHA will be routine. Thus, the results of this research can be said to be in line with the research above that the better the attitude towards periodic examination behavior, the better the periodic

examination behavior of PLWHA in Jombang Regency.

This is in line with research by Qing et al. (2022) which states that there is a significant relationship between attitudes and diagnostic examination behavior. Respondents who have a positive attitude in the sense that they support diagnostic examinations regarding the level of awareness in maintaining health possessed by all HIV sufferers are different because this is influenced by their respective attitudes in assessing health. Attitude towards health is an important thing that an HIV sufferer must do.

Tenkorang et al. (2022) stated that there is a significant influence of attitude on compliance with VCT in HIV patients in Ghana. The results show awareness of HIV and AIDS that willingness, perception of risks related to their sexual life, positive perception about diagnostic examinations, attitudes towards providing services and ease of access to health services are factors that influence them.

The discussion of attitudes is in line with research by Isnaini et al. (2023) attitudes arise from various forms of assessment. Attitudes are developed in three models, namely affection, behavioral tendencies, and cognition. Affective responses are physiological responses that express an individual's liking for something. Behavioral tendencies are verbal indications of an individual's intentions. Cognitive response is a cognitive evaluation of an attitude object. Most individual attitudes are the result of social learning from their environment.

The compliance stage is the beginning of changes in individual behavior and attitudes. The next identification becomes internalization. Initially individuals obeyed officers' instructions and recommendations without being willing to carry out these

actions and often because they wanted to. In this study, the attitude variable has a significant relationship with adherence to taking ARVs because several things have a significant relationship with adherence to taking ARVs because several things are closely related to attitudes which have three components which together form a complete attitude (total consistent) and influenced by knowledge, thoughts, beliefs and emotions. Attitudes are not certain to be realized in an action, supporting factors or certain conditions are needed that allow an action to occur, for example facility factors and support factors from other parties.

There is a positive influence between subjective norms on the behavior of periodic examinations of PLWHA in Jombang Regency, where the influence of the indirect relationship can be explained by the influence of subjective norms on intentions indirectly through behavioral intentions. Being positive means that the influence of subjective norms on behavioral intentions is a unidirectional relationship, where if subjective norms are good then behavioral intentions in relation to periodic examinations carried out by PLWHA in Jombang Regency will also be better. It can be seen that the role of companions from peer support groups, especially families, is actually more influential than the role of health workers and the community. This situation becomes a problem that is also related to the previous variable.

Research conducted by Li and Li (2023) Negative norms regarding HIV/AIDS is a disease that has a stigma in society, so sometimes you cannot stand alone when HIV sufferers of course really need support both internally and externally from family and society. when in an area or village there is a stigma, it will also affect the success or willingness of the person to undergo examination or treatment, so this

social factor is very important because it is one of the supports for him in the future which changes the intention of HIV sufferers in carrying out regular examinations. Subjective norms are very important to improve their quality, especially within the scope of periodic examinations, considering that subjective norms are a person's perception of people who are considered important for him to behave or not behave in a certain way, and the extent to which a person is a reference for the people around him and by motivation to follow these references or recommendations (Ntsabane et al., 2022).

The results of this research are in line with research by Ali et al. (2018), in their research stated the importance of family support in treatment and adherence to anti-retrovirals. HIV patients living with their families receive better moral, emotional and financial support, which helps them to be more compliant. Family relationships are a strong predictor of better adherence to ARVs, therefore family involvement is necessary throughout the treatment process. Research by Borah et al. (2020), stated that normative beliefs have a positive and significant influence on attitudes, attitudes significantly influence behavioral intentions. Research by Dumitrescu et al. (2011), stated that support from partners, family, friends, relatives, government or non-governmental organizations is almost 3 times more likely to have good adherence than those who do not have support, this study found that the patient-health care provider relationship supports. Disclosure of HIV status affects compliance with viral load and ARV testing.

The results of this study show that there is no problem with the distance between the service location and where they live, but the majority of them choose a place that is comfortable, does not discriminate

against PLWHA, provides clear information, and basically it is based on their trust to have regular check-ups because of these two things, which means There is a positive influence between behavioral control on behavioral intentions related to periodic examinations of PLWHA in Jombang Regency. The positive path coefficient means that the perceived behavioral control variable has a unidirectional relationship with behavioral intentions, where if perceived behavioral control is improved, behavioral intentions related to the examination of PLWHA in Jombang Regency will be better.

This research is in line with Ajzen's (2002) theory that perceived behavior control is the perception of how easy or difficult a behavior can be carried out. This variable is assumed to reflect past experiences and anticipate obstacles that may occur or perceived behavior control is a person's perception of the ease or difficulty of carrying out certain behavior. In other words, the greater a person's perception of opportunities and resources, the more the individual feels about the behavior and vice versa, the fewer the individual feels the supporting factors and the many inhibiting factors for carrying out a behavior, the individual will tend to perceive himself as difficult to carry out the behavior.

Another line of research from Husain et al. (2021), states that this refers to a person's perception of the ease or difficulty involved in carrying out the target behavior and any limitations that may inhibit the behavior. In other words, this refers to the extent to which the person expects or feels control over the intended behavior, but this is not a main predictor of someone changing his or her intentions so individuals are more influenced by the two TPB factors, attitudes towards the behavior and subjective

norms that influence it. (Husain et al., 2021).

AUTHOR CONTRIBUTION

Helmi Annuchasari as a researcher who selected topics, searched for and collected data. Argyo Demartoto and Hanung Prasetya analyzed data and reviewed research documents.

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This study is self-funded.

CONFLICT OF INTEREST

There is no conflict of interest in this study.

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