

## THE EFFECTIVENESS OF IMPLEMENTING THE ANDROID-BASED HIV CAR TOOLS APPLICATION TO LIFESTYLE CHANGES IN MOTHERS WITH HIV/AIDS

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### Abstract

**Background :** Health is an indicator to measure the level of welfare of a society or nation. The current healthy paradigm being promoted requires a change in people's mindset from treating disease to maintaining or maintaining health so that you don't get sick, therefore an understanding of disease and how to prevent it needs to be disseminated to the community. One aspect of health at the end of the 20th century which was a disaster for humans was the emergence of a disease caused by a virus called HIV (Human Immunodeficiency Virus) which can cause AIDS (Acquired Immuno Deficiency Syndrome).

**Purpose of Writing :** To find out the Effectiveness of Implementing the Android-Based HIV Care Tools Application for Lifestyle Changes in Mothers with HIV/AIDS at the Malingping Health Center in 2023.

**Research Methods :** The type of research used was quantitative research. This research method is experimental with the type of Quasy Experimental (pseudo-experimental) with a one-group pretest-posttest design. This research was conducted at the Malingping Health Center in January-February 2023. The population in this study totaled 35 samples while the sample numbered 30 by means of sampling using purposive sampling.

**Research results :** Output on the Chi Square Tests table, the calculated value of  $X^2 = 38.830$  with  $p$  value =  $0.000 < 0.05$  then  $H_0$  is rejected. So, it can be concluded that there is an effective relationship between the Implementation of the Android-Based HIV Care Tools Application on Lifestyle Changes in Mothers with HIV/AIDS.

**Conclusions and Suggestions:** There is Application for Lifestyle Changes in Mothers with HIV/AIDS at the Malingping Health Center in 2023. It is hoped that the public will further increase their knowledge of the Care Tools program by actively participating in counseling given by related healthnworkes so that knowledge can be good and HIV transmission can be prevented.

**Keywords:** HIV Car Tools, Lifestyle, HIV/AIDS

## INTRODUCTION

Health is one indicator to measure the level of welfare of a society or nation. The current healthy paradigm being promoted requires a change in people's mindset from treating disease to maintaining or maintaining health so that you don't get sick, therefore an understanding of disease and how to prevent it needs to be disseminated to the community. One aspect of health at the end of the 20th century which was a disaster for humans was the emergence of a disease caused by a virus called HIV (Human Immunodeficiency Virus) which can cause AIDS (Acquired Immuno Deficiency Syndrome).

AIDS is a syndrome with symptoms of opportunistic infections due to decreased immune system caused by HIV (Human Immunodeficiency Virus) infection. HIV & AIDS infection is still a global health problem, including in Indonesia. A growing problem with HIV & AIDS infection is the high incidence and mortality rates.

The rate of spread of HIV infection in Indonesia is one of the fastest in the world. HIV/AIDS cases are concentrated in high-risk populations, especially in the IDU (intra venous drug user) group and sex workers where the spread of cases is fast. Human Immunodeficiency Virus (HIV) is still a public health problem in Indonesia.

HIV/AIDS is a serious health problem that is classified as a chronic disease like diabetes and chronic kidney disease. Chronic illness not only affects the lives of those who suffer from the disease but also affects the lives of those who care for them.

The Ministry of Health's Health Data and Information Center reported that in the last eleven years the number of HIV cases in Indonesia reached its peak in 2019, namely 50,282 cases. Based on the third quarter report on HIV AIDS in the January-September 2020 period, it was recorded that the fast track target of 90 90 90 had only reached 75.5%, an HIV case finding rate, 26% of people with HIV (ODHA who routinely received ARV treatment with a Lost to follow up rate). LFU reaches 15% of ODHA found (Kemenkes RI, 2021).

The response to HIV prevention in Indonesia continues to grow significantly, but there are still many obstacles for ODHA to get access to the care and treatment they need. There needs to be awareness and understanding of all aspects so that HIV AIDS rates can be controlled. It is not enough for the HIV control program to be carried out only by health personnel, but it is also necessary to involve the participation of the community or community, especially from key populations. This involvement starts from prevention efforts in the community to care, support and treatment (Kemenkes, 2018).

The presence of the HIV virus in the body of ODHA poses a threat to their health status. Physical, psychological, psychosocial and spiritual symptoms often accompany ODHA (Schweitzer, Mizwa, & Ross, 2010). So maintaining health status is very important, especially during the current Covid pandemic. The behavior of ODHA individuals is a factor that greatly influences their health status. A person's behavior will affect the quality of life of the person himself. Good and positive behavior will also have a positive impact on health (Adliyani, 2015). Having good behavior in health is the most important pillar for ODHA in maintaining their health status. Everyone, including ODHA, should take the recommended precautions to reduce their exposure to COVID-19. ODHA is one of the populations that is vulnerable to exposure to Covid19 (United Nations Program on HIV and AIDS (UNAIDS), 2020). Based on this, it is important for

PLWHA to understand and implement healthy and careful behavior to maintain their health status.

Based on the latest information collected by the Ministry of Health through HIV/AIDS surveillance, behavioral surveillance and various field studies, it is concluded that the potential threat of the HIV/AIDS epidemic in Indonesia is getting bigger. The first case of HIV/AIDS in Indonesia was discovered in 1987 in Bali. However, the spread of HIV in Indonesia increased after 1995.

Cumulatively, people living with HIV infection and AIDS cases from 1 July 1987 to 30 September 2007 had reached 16,288 cases, with details of 10,384 people with AIDS and 5,904 people living with HIV, with 2,287 deaths. More concerning is the high percentage of sufferers in the productive age group (53%) in the 20-29 year age group and around 25% in the 30-39 year age group). Apart from that, there has been a shift in the mode of transmission, previously sexual intercourse was the main cause, now the most cases of transmission (49.5%) are through the use of injecting needles by drug abusers (IDUs).

Based on data from the Working Area of the Malingping Health Center in 2023, there were 845 couples of childbearing age and 35 people who had HIV/AIDS. Based on these problems, the researcher is interested in conducting research with the title "Effectiveness of Implementing the Android-Based HIV Care Tools Application on Lifestyle Changes in Mothers with HIV/AIDS" At the Malingping Health Center".

## **RESEARCH METHODS**

This type of research used is quantitative research. This research method is experimental with the type of Quasy Experimental (pseudo-experimental) with a one-group pretest-posttest design..This research was conducted at the Malingping Health Center in January-February 2023. The population in this study totaled 35 samples while the sample numbered 30 by means of sampling using purposive sampling. Data collection was carried out by interviewing and using observation sheets to determine the characteristics of the respondents. The tool used to determine changes in respondents' pain levels is the AIO (Activities, Interests, Opinion) lifestyle.

**RESEARCH RESULT****A. Characteristics of Respondents****1. Distribution of respondents based on age category****Table 4.1 Distribution of Respondents by Age Category**

| No.   | Age Category  | Nominal | Percentage (%) |
|-------|---------------|---------|----------------|
| 1.    | 20 – 35 years | 10      | 66,7           |
| 2.    | >35 years     | 5       | 33,3           |
| Total |               | 15      | 100.0          |

Source: Primary Data, 2023

Based on table 4.1 of the 15 respondents, it can be seen that the age category of respondents was 20-35 years, namely 10 (66.7%) respondents, and >35 years, namely 5 (33.3%) respondents.

**2. Distribution of respondents by job category****Table 4.2 Distribution of Respondents by Job Category**

| No    | Job Category  | Nominal | Percentage (%) |
|-------|---------------|---------|----------------|
| 1.    | civil servant | 2       | 13,3           |
| 2.    | Honorary      | 5       | 33,3           |
| 3.    | Self-employed | 8       | 53,4           |
| Total |               | 15      | 100.0          |

Source: Primary Data, 2023

Based on table 4.2 of the 15 respondents, it can be seen that the job categories of the respondents were 2 civil servants (13.3%) respondents, honorary 5 (33.3%), and self-employed 8 (53.4%) respondents.

**3. Distribution of respondents based on education category****Table 4.3 Distribution of Respondents by Education Category**

| No.   | Education Category | Nominal | Percentage (%) |
|-------|--------------------|---------|----------------|
| 1.    | Higher education   | 4       | 26,7           |
| 2.    | Low education      | 11      | 73,3           |
| Total |                    | 15      | 100.0          |

Source: Primary Data, 2023

Based on table 4.3 of the 15 respondents, it can be seen that the education category of the respondents was 4 people with higher education (26.7%), and 11 people with low education (73.3%).

## B. Univariate analysis

### 1. Lifestyle behavior about the Tools Care Application

**Table 4.4**  
**Frequency Distribution of Lifestyle Behavior towards Tools Care Application Program**

| No.   | Attitude          | Frequency | Percentage (%) |
|-------|-------------------|-----------|----------------|
| 1.    | Positive Behavior | 12        | 80             |
| 2.    | Negative Behavior | 3         | 20             |
| Total |                   | 15        | 100.0          |

Source: Primary Data, 2023

Based on table 4.4, it can be seen that the category of positive behavior towards the Tools Care Application is that the majority of respondents have a positive attitude of 12 people (80%). Although most of the respondents had a positive attitude towards Care Tools, there were some who had a negative attitude, namely 3 people (20%).

## C. Bivariate Analysis

**Table 4.5**  
**Statistical Test of Application RelationsThe Android-based HIV Care Tools Application is effective for Lifestyle Changes in Mothers with HIV/AIDSAt the Malingping Health Center in 2023**

| ToolsCare application | Behavior |      |          |      | Total | P value |                  |
|-----------------------|----------|------|----------|------|-------|---------|------------------|
|                       | Positive |      | Negative |      |       |         |                  |
|                       | N        | %    | N        | %    | n     |         | %                |
| Good                  | 7        | 100  | 0        | 0    | 7     | 100     | $\alpha = 0.021$ |
| Enough                | 4        | 66,7 | 2        | 33,3 | 6     | 100     |                  |
| Not enough            | 1        | 50   | 1        | 50   | 2     | 100     |                  |
| <b>Total</b>          | 12       | 80   | 3        | 20   | 15    | 100     |                  |

Source: SPSS 23

Based on the table above, it can be concluded that mothers with HIV/AIDS who have a positive attitude with knowledge of the application of care tools are 7 people (100.0%), sufficient knowledge is 4 people (66.7%) respondents and 1 person (50%) has insufficient knowledge. ). Meanwhile, mothers with HIV/AIDS who had a negative attitude with good knowledge were 0 (.0%) respondents, 2 people (33.3%) had sufficient knowledge and 1 person (1%) lacked knowledge.

Output on Chi Square Tests table, value  $\chi^2$  count = 38,830 with a value of  $p = 0.000 < 0.05$  then  $H_0$  is rejected. So, it can be concluded that there is an effective relationship between the Implementation of the Android-Based HIV Care Tools Application on Lifestyle Changes in Mothers with HIV/AIDS at the Malingping Health Center in 2023.

## DISCUSSION

The results of this study support the hypothesis that there is an effective relationship between the application of the Android-based HIV Care Tools application to lifestyle changes in mothers with HIV/AIDS. At the Malingping Health Center in 2023 with a value of  $p = 0.021 < 0.05$  then  $H_0$  is rejected and  $H_a$  is accepted. This can be seen from the large relationship between the application application variables and lifestyle changes in mothers with HIV/AIDS, indicating that the better the mother's knowledge will lead to a supportive attitude towards the Care Tools program. And vice versa, the lower the mother's knowledge will lead to behavior/changes that are less and do not support the care tools program.

This research is in line with research conducted by Resty Asmauryanah, 2017 in Makassar City, concluding that there is a relationship between knowledge ( $p=0.001$ ), attitude ( $p=0.006$ ), husband's role ( $p=0.000$ ), and health worker's role ( $p=0.001$ ) ) with the efforts of pregnant women in preventing HIV transmission to their babies.

Research was also conducted by Erika Rizky Noviana Tri, 2018 in Boyolali regarding the Relationship between Knowledge and Attitudes of Housewives Regarding HIV/AIDS Transmission and Prevention, a correlation coefficient value of 0.349 was obtained with Sig. 0.012, this shows that the value of  $p < 0.012$  means that there is a low level of relationship of 0.349 or 34.9% between knowledge and attitudes of housewives about HIV/AIDS transmission. This means that there is a positive relationship between knowledge and low attitude.

In Azwar's theory Azwar (2020) Personal experience is something that has been and is being experienced which will shape and influence the appreciation of social stimuli, as well as knowledge, knowledge plays an important role in shaping attitudes. Knowledge makes people have a certain attitude towards objects. In addition to the two factors above, attitudes are also influenced by the influence of other people who are considered important because in general individuals tend to choose attitudes that are conformist or in line with the attitudes of people who are considered important.

The education level of the respondents in this study was mostly high school. Age is related to the experience gained, the older a person gets, the more experience he gets directly or indirectly. In addition to age, in this study education also affects the increase in one's knowledge. Likewise with jobs that often interact with other people who have more knowledge than other people without any interaction with other people. Learning experience at work that is developed to provide professional knowledge and skills as well as learning experience at work will be able to develop the ability to make decisions which are the integration of scientific and ethical reasoning.

Budioro in Anindita said that the process of changing behavior towards maturity and perfecting life thus education has a very large influence on the behavior of those with higher education will differ greatly in behavior with people with only basic education. Educated women will be more open to new ideas and changes to get proportional health services because they will fully realize the benefits of health services.

Observations that have been made by researchers indicate that the behavior of supporting mothers living with HIV AIDS in the application of care tools is based on several factors, namely knowledge, thoughts, the influence of social factors, the influence of other people who are considered important, the mass media and educational institutions.

The lack of knowledge of these respondents was due to a lack of counseling and delivery of information obtained either directly or indirectly such as seminars or brochures and from the mass media such as television, radio and the internet about HIV prevention in pregnancy in the area of residence. So that pregnant women will also have a negative attitude or lack of response to HIV prevention in pregnancy.

Based on the results of the study, it was found that several mothers had sufficient knowledge but lacked attitudes and did not support the care tools program because of a misunderstanding in knowledge about transmission and prevention of HIV from mother to baby resulting in misperceptions or assumptions that formed unsupportive behavior in the tools program care.

The results of this study conducted by John stated that one of the factors for pregnant women in efforts to prevent HIV transmission from mother to baby is the role of the husband. The husband's involvement in preventing HIV transmission from mother to child in controlling HIV infection to the baby is very beneficial because the mother's decision-making is discussed with the husband. Falnes, et al stated that the husband's involvement is influenced by a very important component for ANC services, especially to improve strategies for preventing HIV transmission from mother to baby.

From this condition, the implications are expected that health policy makers and health service providers can participate in reducing the morbidity and mortality rates of HIV sufferers, especially in groups of pregnant women who can transmit it to their babies, one of which is by conducting socialization about HIV for pregnant women, providing outreach to the community regarding the phenomenon of the spread of HIV disease which is no longer the monopoly of high-risk groups but has also occurred in groups of pregnant women. In addition, there is awareness for every pregnant woman to be active in every health service activity, especially in supporting the Care Tools program. So that between health workers and the community can be mutually integrated in improving the performance of health services.

## CONCLUSION

Based on the results of the research conducted, the following conclusions can be drawn : There is a relationship between the application of an Android-based HIV Care Tools application that is effective for lifestyle changes in mothers with HIV/AIDS at the Malingping Health Center in 2023 namely the value of  $p = 0.021 < 0.05$  then  $H_0$  is rejected. It can be concluded that there is an effective relationship between the Implementation of the Android-Based HIV Care Tools Application on Lifestyle Changes in Mothers with HIV/AIDS at the Malingping Health Center in 2023.

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