



## HIV/AIDS health education toward enhancing knowledge and HIV prevention efforts in household wife<sup>☆</sup>



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Received 4 October 2018; accepted 14 November 2018

Available online 31 January 2019

### KEYWORDS

AIDS;  
Education;  
HIV;  
Knowledge;  
Leaflets;  
Prevention;  
Videos;  
Women

### Abstract

**Objectives:** this study aimed to identify the influence of health education about HIV/AIDS towards enhancing knowledge and HIV prevention efforts in household wives.

**Method:** A quasy experimental design with pretest and posttest nonequivalent control group study was conducted among housewives in Rumbai Pekanbaru, Riau Province from March to August 2018. A systematic random sampling technique was used to select 144 housewives. A total of 72 intervention groups and 72 control groups. The intervention group was given health education with videos and leaflets. A questionnaire that it tested for validity and reliability has been applied. The Paired-Samples *T*-Test and Independent Samples *T*-Test were applied to analyze data.

**Results:** There were differences in pretest and posttest preventive knowledge and prevention behavior scores on HIV in the intervention group ( $p$ -value = 0.000). However, there was no significant difference in prevention behavior in the control group ( $p$ -value = 0.0120). Based on this results, it can be concluded that health education can increase the knowledge and behavior of prevention of HIV/AIDS in household wives ( $p$ -value = 0.000).

**Recommendation:** The health education on HIV/AIDS counseling and testing are key interventions for reducing number of HIV/AIDS cases. It is recommended that housewives to conduct HIV status on health services, and for HIV program holders are expected to increase the frequency of health education by using attractive media and VCT mobile services in order to reach more housewives.

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<sup>☆</sup> Peer-review of abstracts of the articles is under the responsibility of the Scientific Committee of Riau International Nursing Conference 2018. Full-text and the content of it is under responsibility of authors of the article.

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<https://doi.org/10.1016/j.enfcli.2018.11.005>

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## Introduction

Indonesia is facing a lot of challenges by contacting the HIV/AIDS epidemic which is a widespread occurrence of an infections disease in this particular community. Family

spouses are a team at the chance of being contaminated with HIV/AIDS from their spouses through sex-related transmitting. The Health Indonesian Ministry revealed that HIV among females is 12.302 cases (34%) which are considered in the third place. The main exposure category for all females in Indonesia is heterosexual which is accounted for about 68% of all new AIDS cases within this team. Considering the reports from January to March 2017 shows that, the widest variety of this incident in Indonesia are caused by average women in the city, namely 12,302.<sup>4</sup> This incidence also occurred in Riau Region, and it was recorded in this region that 147 cases of HIV occurred from January to March 2017, and Pekanbaru city has the biggest HIV and AIDS cases.<sup>11</sup>

The case above demonstrates that women are one of the risky categories contaminated with this disease called HIV. Many aspects that causes insecure woman are aspects of knowledge, hardship, biology and some other additional factors.<sup>1</sup> Research on average women in Pekanbaru city revealed that housewife's understanding of HIV and AIDS is low, they have the wrong perception about HIV/AIDS transmitting, and tend to be close to husband's sex-related actions. Deficiency of adequate knowledge on the HIV transmitting would lead to failure to take safety measures and consequently result in an acquisition of infection. Along with uneducated and poverty, gender inequality and an inability to successfully settle more secure sex with their associates have been noted as reasons for enhancing in the burden of HIV among females.<sup>10,13</sup> Apart from heterosexual contact and injecting drug use, depression, physical and sex-related abuse. Mostly, the absence of condom negotiation abilities is some of the psychosocial factors of HIV threat actions among women.

If a proper measure is not taken, this will certainly be a threat to women and the next generations. Therefore, an appropriate treatment is needed by involving stakeholders and women themselves on HIV preventive measures. Women have some important roles to play in the family and community order, to conquer the problem in spreading of HIV/AIDS in the society. A housewife is expected to have the knowledge and details about HIV/AIDS. This detail does not only cover the mechanism for the transmitting of HIV/AIDS but also cover the ways or procedure on how to prevent it.<sup>3</sup> As long as the HIV/AIDS prevention system is targeted at threat categories or key population, whereas women, especially average women are insecure categories. Community-level treatments have been used less regularly, yet they are needed to broadcast health promotion messages that impact individual behavior change and strengthen social norms to succour and reinforce such change. Women need to be equipped with skills and training to enhance their abilities to barter more secure sex practices with their partners. Protection initiatives for knowledge and power have regularly targeted on an alternative involvement in Pekanbaru. Therefore, we performed these studies to examine the effect of health education on knowledge and HIV prevention initiatives among household spouses.

## Methods

A queuey experimental design with pre-test and post-test non-equivalent group was performed among household

wives in Rumbai, Pekanbaru, Riau Region from March to August 2018. A systematic random sampling technique was used to select 144 women. A total of 72 involvement intervention and 72 control groups. The intervention group was given health education with audio visual and leaflet for them to have a full understanding of health related HIV/AIDS. The inclusion criteria were females who: (1) were married, (2) were reproductive age variety between (20–50 decades old). The validity and reliability of the developed questionnaire were tested, and the right of a subject was respected in this study. The eligible subject was individually approached to join in the study. Case study objectives are; the data collection processes, expected research outcomes, subject right, the type of questionnaire, and the right to refuse to participate in the study were explained. The subject agreed to join were assured that information would be kept private and revealed as group data. The Paired-Samples *T* test and Separate Examples *T*-Test were also used in this study to analyse information. The standing panel on values in Ethical Review Board for Medicine and Health Research of the Faculty of Medicine, University of Riau approved these studies (reference no.345/UN.19.5.1.8/UEPKK/2017).

## Results

The result of the homogeneity test of the respondents' features both of the intervention group and the control group revealed that there were no important variations in the two categories. In this study, some 144 women were included. The age of women ranges from 20 to 50 years old. Majority of the subject (67%) were 31–40 years old. Around forty-three of respondents had Minangnese and Java etc. Approximately half of the subject were middle of education level (48.61%).

Based on Paired *t*-test results revealed that there were variations in knowledge ratings before being given HIV/AIDS education with *p*-value = 0.000 with something different in mean different of 4.36 in the involvement group, while in the control group there was also something different in ranking with *p*-value = 0.000, with something different in mean different of 0.98. In prevention group, there are also variations in mean before and after the intervention with *p*-value = 0.000 with something different in the ranking of =5.30. However, there was no significant in the control group (*p* = 0.120), with something different in ranking distinction of 0.95. Based on the outcomes of the independent samples *t*-test research acquired *p*-value = 0.000. The outcome is that there is something different in mean meaningful knowledge between the involvement group and the control group, where the control group knowledge ratings are lower than the experimental group. Furthermore, the outcomes of the HIV prevention group research acquired *p*-value = 0.000. In summary for this study, *H*<sub>0</sub> is rejected, and *H*<sub>a</sub> is accepted. There were significant differences in mean HIV knowledge and behavior between the intervention and control groups (Table 1).

## Discussion

Health education performed in these studies refers to the issues experienced by the respondent. Problems were

**Table 1** Independent sample *t*-test results of changes in knowledge and HIV/AIDS prevention behavior in intervention groups and control groups in Pekanbaru, 2018.

| Variables                | Mean  | SD    | Mean different | 95% CI |       | <i>p</i> <sup>*</sup> |
|--------------------------|-------|-------|----------------|--------|-------|-----------------------|
|                          |       |       |                | Lower  | Upper |                       |
| <i>Knowledge</i>         |       |       |                |        |       |                       |
| Experiment <sup>**</sup> | 12.86 | 1.190 | 3.167          | 2.60   | 3.73  | 0.000                 |
| Control                  | 9.69  | 2.114 |                |        |       |                       |
| <i>Prevention</i>        |       |       |                |        |       |                       |
| Experiment <sup>**</sup> | 41.13 | 5.205 | 8.403          | 0.879  | 6.66  | 0.000                 |
| Control                  | 32.72 | 5.340 |                |        |       |                       |

Note.

\*  $p < 0.05$  significant.

\*\* Approximately 1 month after pre-test.

identified through the process of distributing questionnaires to various respondent's in the previous year (2017) and the focus group discussion with stakeholders that are responsible for the HIV/AIDS program in Riau Region, those in charge of Pekanbaru's HIV/AIDS program, holders of HIV/AIDS program in health centers, HIV-focused NGOs, and women empowerment in Pekanbaru city. The problem discovered include lack of household wife knowledge about HIV/AIDS, such as causes, transmission, prevention, and treatment. Also, the respondent considers that HIV is not possible to transmit to them because they feel confident about their husband and their sex-related behaviors. These results are very identical with the result of research performed by Wulandari et al.<sup>14</sup> which refers to 88 people (51.8%) have a high knowledge about HIV/AIDS prevention on housewives. Similarly,<sup>8</sup> research declares that all participants ( $n=40$ ) have a high level of understanding about HIV/AIDS and its prevention, which includes understanding, causes, ways of transmitting, prevention and treatments for HIV/AIDS. HIV/AIDS relevant knowledge, perceptions, and behavior change among most married women in India, of whom 67% (236) were aware of HIV/AIDS.<sup>6</sup>

According to Notoatmodjo,<sup>7</sup> the health education component is divided into three factors namely; predisposing factors in the form of knowledge, attitude, values, perceptions; enabling factors in the form of availability of resources, affordability of referrals, staff skills, and reinforcement factors in the form of attitude and behavior. The three components are essential in health education so that it will enhance and alter the behavior of household wives for this study. Health education in these study is a combination of "women's empowerment video's on HIV/AIDS prevention" and leaflet to give more enlightenment on HIV/AIDS. This is possible to increase HIV/AIDS prevention knowledge and behavior in household wives. The result of research by Ueda et al.<sup>12</sup> stated that the educational program that combines theory and practice is better and more effective. One of the supporting factors in improving knowledge and prevention behavior is age and level of education. In these study most of the respondent were <40 years old, 46.53% were between 31 and 40 years, and 29.86% were age between 20 and 30 years. This age is a productive age, where someone will easily accept and actively seek information related to HIV/AIDS.<sup>9</sup> argued that main influencing factors for

having good knowledge towards HIV/AIDS were women aged <30 years old and have high education.

Furthermore, the most household wives' education was the middle of education (48%) to get related information about HIV/AIDS, and the most of research respondent received information about HIV/AIDS from various sources such as health workers (doctors, nurses, midwives), television and social media. In most cases, the higher level of education will help you to obtain the details provided.<sup>2</sup> Education that has been pursued by someone is a factor that will assist an individual's ability to receive information, the higher the level of education an individual has the broader perspective and way of thinking in dealing with conditions or problems that occur around.<sup>7</sup>

The result of the paired sample *t*-test shows that the research in the intervention group declares that health education can enhance household wives to have more knowledge about HIV. This is evidenced by an increase in posttest knowledge score of 4.36 points. Likewise, preventive behavior increased by 5.30. In the control group, there was also an increased in posttest knowledge of 0.98, while in the prevention behavior the score decreased by 0.958. This occurred because the respondent did not receive information directly from the video clips and leaflet. Respondents only receive information about HIV/AIDS from health workers and on television programs. Based on research data collection, most of the respondent in the control group had a secondary education of (48.6%), and some had a low education of (40.3%), only 11.1% were highly educated out of the 100%. However, the education and information that has been acquired do not have a major influence on increasing the knowledge about HIV/AIDS.

The result of the independent test *t*-test research revealed significant results ( $p$ -value 0.000), this means that the HIV/AIDS prevention knowledge and behaviors in the intervention group which was better than the control group. This happened because education about HIV/AIDS in the intervention group was carried out using appropriate educational media for housewives. These results are quite similar with the result of research carried out by Ifroh and Ayubi's<sup>5</sup> which review in his study that the combination of audio-visual media "Aku Bangga Aku Tahu" and group discussion is effective in increasing adolescent knowledge about HIV/AIDS.

## Conclusions

This study shows that there were differences in score knowledge and behavioral precautions before (pretest) and after (post-test) about HIV in the intervention group. There are also differences in pretest and posttest knowledge in the control group, but there are no differences in preventing HIV/AIDS behavior. This research discovered that educational media (videos and leaflets) impact the knowledge and behavior of protection against HIV/AIDS in housewives or average women. For housewives, it is expected to further enhance HIV/AIDS prevention initiatives by conducting an HIV check into health services. For health centers to increase the frequency of health education with Voluntary Counseling test mobile services, so they can reach more housewives.

## Acknowledgements

This project was supported by the Ministry of Research, Technology and Higher Education (519/UN.19.5.3/PP/2017).

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