RELATIONSHIP OF REPRODUCTIVE WOMEN’S KNOWLEDGE ON VISUAL INSPECTION OF ACETIC ACID (IVA TEST) WITH IVA BEHAVIOUR TEST

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Abstract
Cervical cancer is a malignancy that affects women who are the first for women in developing countries. One way to detect cervical cancer by IVA Test. Inspection IVA is an alternative to pap smear screening for low-cost, practical, very easy to implement and simple equipment and can be done by health workers other than doctors of gynecology. IVA inspection can be done by all health professionals, especially midwives. Need for knowledge because knowledge can determine a person’s positive attitude so as to encourage positive behavior. This study aims to determine the relationship of knowledge of reproductive women on visual inspection of acetic acid (IVA test) with IVA behavior test. The method in this study using Qualitative Analytical, where the population is all reproductive women age in the Gunting village Wonosari Klaten districts with 90 of sample reproductive women with probability sampling technique by means of proportional stratified random sampling, research instruments using the enclosed questionnaire using univariate and bivariate analysis. Based on data analysis of respondents who are knowledgeable enough as many as 32 people (34.4%) and the majority of respondents did not do as many as 81 people (90.0%). In the study there is a relationship of fertility women age knowledge on visual inspection of acetic acid (IVA test) with IVA behaviour test. The analysis results obtained of significant results p < 0.05 (0.003 < 0.05 X2 count > X2 table (11 553 > 5.991) with coefficients contingency is 0.337 it means the closeness is low.

Keywords: reproductive women’s knowledge, IVA test, IVA behaviour

1. INTRODUCTION
Cervical cancer is a cancer that attacks women. Currently cervical cancer ranks second from cancer that attacks women in the world and first place for women in developing countries. Data from the world health agency has 493,243 people per year with cervical cancer with a mortality rate of 273,505 people per year [1].

The incidence in developing countries is estimated to be three times that of developed countries. According to WHO it is estimated that there are 460,000 cases worldwide where as many as 75% are in developing countries. In contrast to developed countries, where the incidence and mortality rate due to cervical cancer has decreased due to the existence of screening programs[2].

In Indonesia, cervical cancer is ranked second in the order of malignancy in women, in 2011 reached 100 per 100,000 population per year, and its spread accumulated in Java and Bali. This figure is expected to continue to increase by 25% in the next 10 years if prevention efforts are not taken [3]. Based on reports of non-communicable diseases from the Central Java Provincial Health Office in 2008 found cases of cervical cancer 8568 cases (31.58%), in 2009 increased to 9113 cases...
(37.65%), in 2010 it increased to 11,454 cases (37.85%), and in 2011 it increased again to 19,637 cases. The results of the Household Health [4].

In 1980 WHO recommended an alternative approach for developing countries against cervical cancer, one of which was by Visual Acetate (IVA) Inspection. Examination IVA is an alternative Pap smear screening examination because it is cheap, practical, very easy to implement and simple equipment and can be done by health workers besides gynecology doctors. IVA examination can be done by all health workers, especially midwives [1].

Based on a preliminary study conducted by researchers in the Scissors Village of Wonosari District, Klaten, it was found that women of childbearing age were suffering from cervical cancer. Based on the description of the background above, the authors are interested in conducting research with the title "Relationship Between Knowledge of Reproductive Age Women About IVA Test and the behaviour of IVA Tests". The formulation of the problem in this study is "How is the relationship between Knowledge of Reproductive Age Women About IVA Test and behaviour of IVA Tests."

2. MATERIALS AND METHODS

The location of the study was conducted in the Gunting’s Village of Wonosari District, Klaten. This type of research uses analytics. Analytical research is a survey or research that tries to explore how and why health phenomena occur [5]. The research design uses Cross Sectional, which is a study to study the dynamics of correlation between risk factors and effect factors, by approaching, observing or collecting data at one time (point time approach) [5].

The population used in this study were all women of reproductive age totaling 842 in the Gunting’s Village of Wonosari District, Klaten. In this study the sample used was women of reproductive age in Gunting Village, Wonosari District, Klaten who at the time of the study were present. Based on the calculation, the number of samples is 89.3 rounded up to 90 respondents.

The sampling technique used in this study uses probability sampling techniques by means of Proportional Stratified Random Sampling, Probability Sampling which is that each subject in the population has the same opportunity to become a research sample. To provide equal opportunities for each member of the population, this study uses Proportional Stratified Random Sampling as a sampling technique that is used if the population has proportional members or heterogeneous elements and proportions [6].

The method of data collection is done by giving an agreement statement sheet and distributing a questionnaire or questionnaire to reproductive women. Probability Sampling is that each subject in the population has the same opportunity to become a research sample. In this case the Fertile Woman in the Gunting Village of Wonosari District, Klaten, then explained how to fill it. Respondents were invited to fill out the questionnaire until completion and the questionnaire was taken at that time by the researcher. Data is taken from primary data and secondary data. The tool used for collecting data in this study is a questionnaire.

Activities in processing data through several stages including editing which aims to reduce errors or shortcomings that are listed in the question. Coding to classify answers from respondents into categories. If properly coded "B" and if incorrectly coded "S". Scoring provides an assessment of items that need to be given an assessment or score. For questions that are positive (favorable) the answer "right" is given a value of 1 and the answer "wrong" is given a value of 0. While for negative questions (unfavorable) the answer "right" is given a value of 1 and the answer "wrong" is given a value of 0. Tabulation is making data table, answers that have been coded are then entered into the table [7].
Analysis of the data used in this study were univariate analysis and bivariate analysis. Univariate analysis was conducted to determine the frequency distribution of each variable studied. Bivariate analysis was carried out in phases of two allegedly related variables, with the aim to see the relationship between the Independent variable and the Dependent variable. To prove the existence of a relationship between these two variables using the Chi square statistical test.

3. RESULTS AND DISCUSSIONS

This research was conducted in the Scissors Village of Wonosari District, Klaten. The sample in this study were reproductive women age totaling 90 respondents.

The characteristics of the respondents in this study are based on age, work, education and information media. then analyzed to prove the truth of the hypothesis. Data analysis in this study was divided into two parts, namely univariate and bivariate analysis:

The results of the study on the relationship of knowledge of reproductive women age to visual inspection of acetic acid with IVA test behavior can be presented in the following table:

**Table 1 Distribution of reproductive women about IVA Test**

<table>
<thead>
<tr>
<th>No.</th>
<th>Knowledge</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Good</td>
<td>27</td>
<td>30.0%</td>
</tr>
<tr>
<td>2.</td>
<td>Enough</td>
<td>32</td>
<td>35.6%</td>
</tr>
<tr>
<td>3.</td>
<td>Low</td>
<td>31</td>
<td>34.4%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>90</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

(Source: Primary Data, 2019)

Based on the data in table 1, it can be seen that the knowledge of reproductive women in the Gunting Village of Wonosari District, Klaten, about 32 people (35.6%) from 90 respondents from the visual acetate acid test majority.

b. Behaviour of IVA Test

IVA Test behavior’s data in gunting village of wonosari district, klaten were obtained through a questionnaire statement namely doing and not doing.

**Table 2 Distribution of IVA Test Behaviour**

<table>
<thead>
<tr>
<th>No.</th>
<th>IVA test’s Behaviour</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Done</td>
<td>9</td>
<td>10.0%</td>
</tr>
<tr>
<td>2.</td>
<td>Not Do</td>
<td>81</td>
<td>90.0%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>90</td>
<td>100%</td>
</tr>
</tbody>
</table>

(Source: Primary Data 2019)

Based on the data in table 2, it can be seen that the iva test behavior in women of childbearing age in the Gunting Village of Wonosari District, Klaten, is mostly not done, namely 81 people (90.0%) of 90 respondents.

2. Bivariate Analysis

Data analysis for testing of hypothesis in this research used Chi-Square analysis. This analysis was used to determine the relationship of knowledge of reproductive women about IVA Test with behavior of IVA Test. The relationship between knowledge of women of childbearing age...
about visual inspection of acetic acid (iva test) tests and the iva test behavior can be described as follows:

### Tabel 3 Distribution of relationship between knowledge of reproductive women knowledge with behavior of IVA Test

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>IVA test’s Behaviour</th>
<th>p-Value</th>
<th>KK</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Done</td>
<td>Not Do</td>
<td>F %</td>
</tr>
<tr>
<td>Good</td>
<td>7</td>
<td>20</td>
<td>7.9%</td>
</tr>
<tr>
<td>Enough</td>
<td>2</td>
<td>30</td>
<td>2.2%</td>
</tr>
<tr>
<td>Low</td>
<td>0</td>
<td>31</td>
<td>0%</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>81</td>
<td>10.1%</td>
</tr>
</tbody>
</table>

Based on data in table 3 it can be seen from 90 respondents have different knowledge. From all respondents who done IVA Test, majority have good knowledge about 7 people (7.9%), while respondents who did not do IVA test, majority have low knowledge about 31 people (34.4%).

The result of analysis is showed p value p=0.003 so p<0.05 it mean Ho is rejected and dan Ha accepted, so there is a significant relationship between knowledge of reproductive women about IVA Test with IVA Test behavior. While the result of contingency coefficient is 0.337 means low closeness.

### Discussion

1. Knowledge of Reproductive Women about IVA test

   Based on the data in table 1 it can be seen that the knowledge of fertile women about IVA test included in good category that is 27 people (30.0%), category enough as 32 people (35.6%), and category low as 31 people (34.4%) from 90 respondents. Based on the data it can be concluded that most respondents have enough knowledge about IVA test.

   Visual Acidic Acid Inspection (IVA) test is a check by looking directly at the cervix after spinning the cervix with 3 to 5% acetic acid solution. If after 3 to 5% acetic acid decomposition there is a color change, ie white spots, then there may be a disorder of the pre-cancerous stage of the cervix [8].

   IVA test is a method of examination by polishing the cervix or cervix using weten sticks that have been dipped in 3-5% acetic acid / vinegar with the naked eye. Abnormal areas will turn white (acetowhite) with firm boundaries, and indicate that the cervix may have pre-cancerous lesions. If there are no discoloration, there can be no infection of the cervix [9].

   One of the factors that influence is education. Education affects the quality of human knowledge. The higher the education, the more human life will be of higher quality because high education will produce good knowledge that makes life quality [5].

   Based on the characteristics of education it is known that the majority of respondents with secondary education are 50 people (55.5%). According to the theory that education is an attempt to develop personality and abilities inside and outside of school and last a lifetime. Education affects the learning process, the higher one's education is, the easier it is for the person to receive information. The more information entered the more knowledge gained about health [10].

   In addition to educational factors other factors that affect age. Age affects knowledge. The higher the age of a person, the more knowledge or knowledge increases because one's knowledge is influenced by their own experiences and those of others [5].

   Based on the age characteristics, the majority of respondents are known to be 20–35 years old as many as 80 people (88.9%). According to the theory that there is age is the length of a person's life in the year calculated from birth and age affects knowledge. The
higher the age of a person, the more knowledge or knowledge increases because one's knowledge is influenced by their own experiences and those of others [5]. The results of the study were in accordance with the research conducted by Pasaribu (2013) with the title description of knowledge of mothers aged 25-40 years about visual inspection of acetic acid (IVA) in the XIII neighborhood of Tegal Sari Mandala II Village, Denai District. In this study 38 respondents (51.36%) with a knowledgeable age of 25-40 years were 74 people (100%) [11].

2. Behaviour of IVA Test

   Based on the data in table 2, it can be seen that the behavior of IVA test in women of childbearing age in the Gunting Village of Wonosari District, Klaten who performed as many as 9 people (10.0%) and did not do 81 people (90.0%) from 90 respondents. Based on these data it can be concluded that the majority of respondents did not carry out the IVA Test.

   One of the factors that influence is information, information influences behavior. The more information the more inclined to behave, especially the IVA test for early detection of cervical cancer.

   Based on the information characteristics it is known that the majority of respondents were unaware of the visual inspection of acetic acid as many as 62 people (68.9%). According to the theory that there is information obtained from both formal and non-formal education can provide immediate impact (immediate impact) resulting in changes or increased knowledge. The advancement of technology will be available various kinds of mass media that influence people's knowledge about new innovations [10].

   In addition to information factors other factors that influence are work. Based on the job characteristics it is known that the majority of respondents do not work, 76 people (84.4%). According to the theory of Purwodarminta (2005) in Nurjanah (2013) a housewife is a wife (mother) who only takes care of various work in the household (does not work in the office), and according to the theory that there is work is a bad thing to do especially to support her life and family life so that a person does not have enough time to do other activities besides work [10].

   The results of the study are consistent with the research conducted by Utami (2013) with the title of the level of knowledge with the behavior of early detection of cervical cancer in couples of childbearing age in the Sangkrah Health Center Working Area, Sangkrah Village, Pasar Kliwon District, Surakarta with the results of 85 respondents who did namely 58 respondents (68%) and those who conducted 27 respondents (32%) [12].

3. Relationship between Knowledge of Reproductive Women about IVA Test and Behaviour of IVA test

   Based on the data in table 3 it can be seen that out of 90 respondents have different knowledge. Of all research respondents who conducted IVA Test the majority had good knowledge as many as 7 people (7.9%) while those who did not do IVA Test had the majority of knowledge that was as many as 31 people (34.4%).

   The results of the analysis obtained a value with significance p = 0.003 so p <0.05 means that Ho is rejected and Ha is accepted, there is a significant relationship between knowledge of fertile age women on visual acetic acid inspection (IVA test) and behavior of IVA test and the contingency coefficient of 0.337 means low closeness.

   Indonesian women's awareness to regularly detect cervical cancer is still low. The coverage of early detection of cervical cancer in Indonesia is less than 5% so that many cases of cervical cancer are found at an advanced stage which often causes death [13].

   In 1980 WHO recommended an alternative approach for developing countries against cervical cancer, one of which was by Visual Acetate (IVA) Inspection. Examination IVA is an alternative Pap smear screening examination because it is cheap, practical, very easy to
implement and simple equipment and can be done by health workers besides gynecology doctors. IVA examination can be done by all health workers, especially midwives [1].

According to Lawrence Green in Notoatmodjo (2012) explained that health behavior is determined by 3 main factors, one of which is knowledge. According to Notoatmojo (2003) in Wawan and Dewi (2011), knowledge is a result of "know", and this occurs after people have sensed a particular object. Knowledge or cognitive is dominant which is very important for the formation of one's actions (overt behavior). Knowledge that has been documented or stored in a tangible form, can be in the form of health behavior in this case the early detection of Ca. Cervix with IVA Test. This explains if someone who has knowledge can manifest from a person's health behavior. One of the things that affects mothers in conducting early detection in efforts to prevent cervical cancer is the knowledge of mothers that can be obtained from media information or the mother's environment. The better the mother's knowledge, the better the mother's support in preventive actions (conducting early detection with the IVA Test).

The results of the study are in accordance with the research conducted by Artiningsih (2011) with the title of the relationship between the level of knowledge and attitudes of reproductive-age women with visual inspection of acetic acid in the context of early detection of cervical cancer in Blooto Community Health Center, Kecamatan Warrior Kulon Mojokerto [14]. Positive between WUS knowledge and IVA test attitude (p = 0.000 and r = 0.535). The better the mother's knowledge, the better the mother's awareness to behave so that it affects behavior in this case is the IVA test. Simultaneously the knowledge and attitudes influence the behavior of IVA on WUS in Blooto Community Health Center, Prrior Kulon Subdistrict, Mojokerto City at 48 people (48.0%) out of 100 respondents who have sufficient knowledge.

4. CONCLUSION

Based on the results of the analysis of the study with the title of the relationship of knowledge of reproductive women about IVA test with the behavior of IVA test that has been described, then conclusions can be taken as follows:

a. Knowledge of reproductive women about IVA Test is mostly included in enough category
b. IVA Test’s Behaviour of Reproductive Women is mostly did not do
c. There is a significant relationship between knowledge of reproductive women about IVA Test with IVA Test’s behaviour in Gunting village, Wonosari, Klaten with low correlation.

REFERENCES

RELATIONSHIP OF REPRODUCTIVE WOMEN'S KNOWLEDGE ON VISUAL INSPECTION OF ACETIC ACID (IVA TEST) WITH IVA BEHAVIOUR TEST