The Correlation between Characteristics, Knowledge, and Motivation of Couples in Childbearing Age with the Early Detection of Cervical Cancer in Ulin General Hospital Banjarmasin

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ABSTRACT
Cervical cancer is a malignant tumor that grows in the cervix and often attacks women. In Indonesia, cervical cancer is the number one killer of all cancers. So early detection is very important. The incidence of cancer from year to year has been increasing significantly. On the contrary, the coverage of Pap smear test has been decreasing. Aims: To determine the correlation of characteristics (age, education, employment), knowledge and motivation and early detection of cervical cancer in couples of childbearing age in patients of Ulin General Hospital Banjarmasin. Methods: This type of research was studied used a cross-sectional design and correlational analysis. The population is all couples of childbearing age who visit in obstetrics policlinic in Ulin General Hospital Banjarmasin. The sampling method was done by nonprobability sampling with the sample size of 66 people. Analysis using the Spearman rank correlation test with 95% confidence value. Results: Results find no correlation between age and early detection of cervical cancer (p=0,264>α=0,05), a correlation between education and early detection of cervical cancer (p=0,001<α=0,05), a correlation between employment with early detection of cervical cancer (p=0,003<α=0,05), no correlation between knowledge with the early detection of cervical cancer (p=0,425>α=0,05), no correlation between motivation with the early detection of cervical cancer (p=0,264>α=0,05).

INTRODUCTION

The health defined WHO is the state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity, reproductive health addresses the reproductive processes, functions, and system at all stages of life [1]. One of the concerns faced in reproductive health is reproductive system cancers such as cervical cancer.

Cervical cancer is a malignant tumor that grows in the neck of the womb (cervix). The lowest part of the neck of the uterus attached to the top of the vagina. Cervical cancer can occur in women aged 35-55 years. Cervical cancer is a global health problem, according to data from the World Health Organization (WHO), cervical cancer is the number two cause of death by cancer in the world. Every
two minutes a woman dies from the disease [2,3]. In Indonesia, cervical cancer has become the number one killer of all cancers. Cervical cancer is the second most common cancer found in women aged 20-55 years. Regardless of age and background, every woman is at risk for diseases caused by Human Papillomavirus (HPV). Even more, this cancer frequently infects and kills women of childbearing age (30-50 years). Given the high-risk factors for this disease, women should undergo screening or early detection. In Indonesia, the screening and early detection program have only obtained 5% coverage [4].

This causes the incidence of cervical cancer to remain high in Indonesia from the preliminary study conducted in the obstetrics policlinic of Ulin General Hospital Banjarmasin that the incidence of cervical cancer has been increasing from year to year. Data from the year 2012 has shown as many as 101 cases of cervical cancer, this figure increased in 2013 with 127 incidences of cervical cancer and continue to rise with 169 cases in 2014. This is not consistent with the number of women who underwent Pap smear examination which from year to year has been decreasing. In the year 2013 women who checked PAP Smear are only 67 people and dropped to 47 in 2014. Data on VIA screening is not available in Obstetrics Policlinic of Ulin General Hospital Banjarmasin.

**METHOD**

The study used a cross-sectional design and correlational analysis to discover the statistical relationships between age, education, employment knowledge, motivation with early detection of cervical cancer in couples of childbearing age in Ulin General Hospital Banjarmasin. The population in this study is all couples of childbearing age in obstetrics policlinic of Ulin General Hospital. And the samples taken are 66 respondents. Data were obtained by questionnaire. The results were tabulated and correlational analysis generated for the purpose of exploring linkages between variables and the early detection of cervical cancer. The sampling method was done by nonprobability sampling with analysis using the Spearman rank correlation test with 95% confidence value.

**RESULTS AND DISCUSSIONS**

**Age**

Distribution of respondents based on age groups in Obstetrics Policlinic RSUD Ulin Banjarmasin.

<table>
<thead>
<tr>
<th>Age group</th>
<th>F</th>
<th>%</th>
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<tbody>
<tr>
<td>&lt; 20 years old</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>20-35 years old</td>
<td>44</td>
<td>66.67</td>
</tr>
<tr>
<td>&gt;35 years old</td>
<td>22</td>
<td>33.33</td>
</tr>
<tr>
<td>Total</td>
<td>66</td>
<td>100</td>
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</tbody>
</table>

Based on results of the study it is found that the majority of respondents who came to visit are in the age of 20-35 years old as many as 44 respondents (66.67%), while the remaining 22 respondents (33.33%) were >35 years old.

Cervical cancer often infects women of childbearing age or at the age of 20-35 years [5]. At that age, women are usually diagnosed with carcinoma in situ (CIS). This poses a greater risk of cervical cancer if not given therapy. Even though 35% of cervical cancer is found in women aged >35 years old, this may be because of the late detection so that the cancer is found at an already advanced stage. This is caused by the reluctance of women to do checkups, while early detection is very important in preventing cervical cancer [6].

**Education**

Distribution of respondents based on level of education.

<table>
<thead>
<tr>
<th>Education</th>
<th>F</th>
<th>%</th>
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</thead>
<tbody>
<tr>
<td>High</td>
<td>18</td>
<td>27.28</td>
</tr>
<tr>
<td>Moderate</td>
<td>28</td>
<td>42.42</td>
</tr>
<tr>
<td>Low</td>
<td>20</td>
<td>30.30</td>
</tr>
<tr>
<td>Total</td>
<td>66</td>
<td>100</td>
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</table>
Education affects the learning process, the higher a person’s education the easier it is for the person to comprehend information [7]. This is consistent with results of the research which shows that the majority of respondents of reproductive age are highly educated (27.28%). However, a person with low education does not always mean they also have little knowledge. It is proven that the majority of respondents are moderately educated (42.42%) and the remaining (30.30%) has low education.

This is consistent with riset which explained that in general the higher the education the easier it is for a person to receive information. However, the increase of knowledge is not merely caused by the formal education a person receives, but it also can be obtained from non-formal education [10].

**Employment**

<table>
<thead>
<tr>
<th>Employment</th>
<th>F</th>
<th>%</th>
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</thead>
<tbody>
<tr>
<td>Employed</td>
<td>22</td>
<td>33.33</td>
</tr>
<tr>
<td>Unemployed</td>
<td>44</td>
<td>66.67</td>
</tr>
<tr>
<td>Total</td>
<td>66</td>
<td>100</td>
</tr>
</tbody>
</table>

Results of the study showed that the majority of women in this study are unemployed (66.67%). This is because a person who does not work will have more time to pay attention to their health than the ones who work. Unfortunately, the free time is not utilized for the early detection of cervical cancer because not all of them are concerned with their health. Of the 11 women (33.33%) who work, most of them work at a private company and the remaining work as civil servants. According to riset about, a person who works will have a more extensive knowledge than someone who is unemployed. While knowledge is not only influenced by occupation but can also be influenced by environmental as well as socio-cultural factors. A certain environment can effect the development and behavior of individuals or groups. [10]

**Knowledge**

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>F</th>
<th>%</th>
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<tbody>
<tr>
<td>High</td>
<td>22</td>
<td>33.33</td>
</tr>
<tr>
<td>Moderate</td>
<td>38</td>
<td>57.58</td>
</tr>
<tr>
<td>Low</td>
<td>6</td>
<td>9.09</td>
</tr>
<tr>
<td>Total</td>
<td>66</td>
<td>100</td>
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</tbody>
</table>

The majority respondents (57.58%) have moderate knowledge. This is because the majority of respondents do not know the meaning and benefits of Pap smear test. They lack information on the early detection of cervical cancer because they rarely try to find information through media [15]. Other causes why only a small proportion of respondents have good knowledge is due to their inactiveness, inactive to ask, inactive to follow information, education and communication (IEC) sessions, inactive to seek information through media [10].

**Motivation**

The majority of respondents have moderate motivation (66.67%). This is because respondents lack the desire to do the early detection of cervical cancer. Lack of self-encouragement to perform detection of cervical cancer because of their friends and families does not do so either, this environmental factor may also affect a person’s motivation [8].

33.33% of respondents has high motivation, this is because they are aware that early detection of cervical cancer it is important to prevent cervical cancer and that there is a need for them to always maintain the health. We also encourage respondents to take Visual Inspection of Acetic Acid (VIA) and Pap smear tests too. Besides that, the story of someone else’s experience who has been affected by cervical cancer may also encourage a person to try and avoid cancer and take early detection of cervical cancer [13].
Results of the study showed that in average the majority 25 respondents has not done early detection of cervical cancer (75.76%), while only eight people have done an early detection of cervical cancer. This is because a person's lack of knowledge on the importance of early detection of cervical cancer, the fear, the embarrassment, and cost factor since VIA and Pap Smear test is relative expensive, there is no will or awareness of respondents for the early detection of cancer. As well as the environment of respondents in which most of their family and friends also have never taken VIA or Pap smear tests.

**Correlation between age and early detection of cervical cancer**

Results showed out of the 44 respondents age 20-35 years old, as much as 36 (81.82%) did not take early detection of cervical cancer tests. Meanwhile, for respondents aged> 35 years most of them (63.64%) also did not do early detection of cervical cancer tests. This may be because age is not the sole criteria or causal factor for the early detection of cervical cancer by VIA or pap smear tests. However, there are several factors that affect a person's age in the early detection of cervical cancer. Among them is a lack of awareness or self-willingness to take early detection by VIA screening and Pap smear test. Besides these no health complaints, they fear of finding abnormalities, they feel embarrassed and that they assume early detection of cervical cancer is only important for old women which are more at risk to have cancer [13]. At respondents are reluctant to check their health because they feel they have

This is consistent with the result which states that age is one of the ways to measure emotional maturity in thinking and decision making. But at a certain age, the ability to store and remember information may be decreased [12]. The lack of ability to think causes a lack of motivation to do something.

Spearman Rank correlation test results showed that there was no significant relationship between age and early detection of cervical cancer in Ulin General Hospital Banjarmasin. This means that the age of a person is in fact not a basis for early detection. It is evident that the majority of respondents in the range of 20-35 years old have not undergone any form of early detection for cervical cancer. These findings are consistent with research conducted [3], which states that there is no significant relationship between age groups with pap smear tests with p (0.92) > α (0.05).

**Correlation between education and early detection of cervical cancer.**

Education means the guidance of someone to someone else in order to help them understand. The higher one's education, the higher their ability to process information and the more knowledge they have. In the contrary, if a person has a low level of education, it may hinder the development of a person's attitude towards reception, information and values that are newly introduced. [6]

Results of the study showed that out of 10 respondents who are highly educated, most of them (60%) has done a form of early detection for cervical cancer. While of the 28 respondents who are moderately educated, the majority 24 (85.72%) has not done any measure to detect cervical cancer. And from all 18 respondents (100%) who has low education, none of them has ever taken a form of early detection for cervical cancer. Low education may hinder a person's ability to receive information and values that are introduced such as the importance of early detection for cervical cancer by VIA (Visual Inspection Acetic Acid) screening and Pap smear tests. Other than that, education can affect a person, including behavior or lifestyle as well as one's motivation to participate in the development of health.

Results of statistical analysis using Spearman Rank correlation test show that there is a significant relationship between education and early detection of cervical cancer in Ulin General Hospital Banjarmasin. This means that a person's level of education a person will affect the motivation for the early detection of cervical cancer. This is consistent with research conducted [11]. States that education affects significantly to the motivation to do Pap smear test where p (0.01) < α (0.05).
Correlation between employment and early detection of cervical cancer.

Based on the study results it is shown that out of 22 respondents who are employed, many of them (54.55%) has done a form of early detection for cervical cancer. While the 44 respondents who are unemployed, (90.91%) have never done any form of cervical cancer detection. This may be because a woman who is unemployed has more free time. However, the time is not benefited for the early detection of cervical cancer since not all of them are concerned to maintaining their health. The cost factor also prevents them to take VIA and Pap smear screening. Other than that, environmental factors also play a role in the motivation of early cancer detection, especially when many of their friends and families also did not take any form of cervical cancer detection.

From the results of statistical analysis using Spearman Rank correlation test, it is found that there was a significant relationship between employment with the early detection of cervical cancer in Ulin General Hospital Banjarmasin. This means that the activity of a person influences the motivation or desire to make early detection of cervical cancer. This research is also consistent with the research conducted by Klug which explained that there is no significant relationship between Participation, motivation, knowledge and employed about of pap smear test with the p-value (0.445) <α (0.05); RP = 0.704, meaning that a pap smear test 0.7 times less likely to occur in respondents who are unemployed as compared with respondents who are employed.

Correlation between knowledge and early detection of cervical cancer.

Results of the study showed that out of 22 respondents with high levels of knowledge, many of them (63.64%) has not done early detection of cervical cancer. From the 38 respondents who have a moderate level of knowledge, the majority (84.22%) also has not done early detection of cervical cancer. While from the 6 respondents with low level of knowledge only 44 (66.67%) of them did not take early detection of cervical cancer.

This could be due to lack of knowledge and information obtained by these respondents on early detection of cancer from health personal, inactiveness to seek information from the media or inactiveness to participate in various IEC sessions. This causes respondents to lack knowledge and understanding about the importance of early detection of cervical cancer. Curiosity is not a major factor that affects the knowledge, but there are still other factors. Factors that affect knowledge are education, occupation, age and culture. Wong said is explained that knowledge is one of the factors that affect a person's behavior. Knowledge is the most important part for the formation of a person's behavior, for example early detection of cervical cancer by VIA and Pap smear screening [14].

Meanwhile, results of statistical analysis with Spearman Rank correlation test showed otherwise, it is found that there was no significant relationship between knowledge and early detection of cervical cancer in Ulin General Hospital Banjarmasin. This means that not everyone who has good knowledge will have the motivation for early detection of cervical cancer, and vice versa. In addition to knowledge there are two other factors, namely predisposing factors that refer to the attitudes and socio-cultural beliefs in health. Whereareas, in practice many has reported the ignorant attitude of the community who is still unaware about the importance of cervical cancer prevention. Besides that, the fear to undergo examination and the assumption of the public about the cost of VIA and Pap smear tests which are very expensive. Then there is also reinforcing factors, in this case, healthcare workers who should be able to provide information using IEC. Counseling/IEC is still rarely done and only to the stage of knowing, but not understanding let alone analyzing and applying, so that still many people has not applied early detection of cervical cancer [11].

So it is recommended that health personnel give out more counseling/IEC on cervical cancer, not only instructing the community to do early detection, but to put more emphasis on information about the dangers of cervical cancer, symptoms, causes, prevention, and treatment. This strategy may be able to increase the awareness of the public about the importance of cervical cancer screening. The finding in this study is not consistent with the research conducted by Nurhasanah in Banda Aceh. In the study showed that there is a relationship between knowledge and the motivation to do Pap smear in Banda Aceh general hospital. [6]
Correlation between motivation and early detection of cervical cancer.

Motivation is an important factor that encourages a person to be more concerned with their health by participating in health programs, including a program of early detection of cervical cancer through VIA and Pap smear screening. According to Klug motivation is defined as the individual's personal circumstances which encourage an individual to undertake certain activities in order to achieve a goal [13]. Results of the study showed that out of 22 respondents with high motivation, most of them (63.6%) have not undergone early detection of cervical cancer. While out of the 44 respondents with a moderate level of motivation, 36 of them (54.5) also has not done cervical cancer detection.

This is because of the high sense of embarrassment, anxiety, and reluctance to be examined caused by the lack of knowledge on early detection of cervical cancer, and the fear of results still hinder the public to do early detection of cervical cancer. This should be encouraged with socialization or counseling about the importance of early detection of cervical cancer in order to motivate the public in taking early detection of cervical cancer [10, 12].

Statistical analysis results showed that there was no significant relationship between motivation and early detection of cervical cancer in Ulin General Hospital Banjarmasin. This is due to lack of knowledge which affects one's motivation to do early detection of cervical cancer. In addition, the lack of interest and awareness for the early detection of cervical cancer, meanwhile we know that early detection is very crucial in preventing cervical cancer.

Motivation is closely related with how the behavior is initiated, supported, reinforced, directed, stopped and also the type of subjective reaction produced. Motivation is the desire to do something which determines the ability to act in order to satisfy the needs of an individual [5, 8]. Things that affect motivation are psychological and mental factors, heredity, environment, maturity age, intrinsic factors (knowledge, education, and employment), facilities (infrastructure), social culture and the media used. Environmental factors affect motivation because of all the conditions that come from internal and external which influences the development and behavior of an individual and groups [15].

REFERENCES

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