HUBUNGAN TINGKAT PENGETAHUAN DAN SIKAP TERHADAP DETEKSI DINI KANKER SERVIKS DENGAN TINGKAT PARTISIPASI TES PAP SMEAR PADA KARYAWAN WANITA FAKULTAS KEDOKTERAN UNIVERSITAS BRAWIJAYA

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ABSTRAK

Kanker serviks terjadi di sel serviks yang berada di bagian bawah rahim yang menghubungkan vagina. Human papillomavirus (HPV) dan hubungan kanker serviks pertama kali ditunjukkan pada awal 1980 oleh ahli virologi Jerman bernama Harold zur hausen. Human Papillomavirus (HPV) Infeksi adalah penyebab utama 90% kasus invasif kanker serviks di seluruh dunia. Orang-orang yang menderita kanker di Indonesia untuk segala usia di tahun 2013 memiliki persentase 1,4% atau 347.792 orang. Di Yogyakarta prevalensinya memiliki penyakit kanker tertinggi dengan jumlah 4,1%, sedangkan untuk Jawa Tengah adalah 68.638 orang dan Jawa Timur 61.230 orang. Kanker serviks memiliki salah satu prevalensi tertinggi di Indonesia pada tahun 2013. Yogyakarta memiliki kanker serviks yang tinggi yaitu 1,5%. Berdasarkan data di Jawa Timur dan Jawa Tengah memiliki kanker serviks dan kanker payudara paling banyak. Untuk mengetahui hubungan antara tingkat pengetahuan dan sikap tentang deteksi dini kanker serviks dengan partisipasi Pap smear tes pada wanita yang bekerja di fakultas kedokteran Universitas Brawijaya dengan menggunakan lembar kuesioner dengan Populasi karyawan wanita di fakultas kedokteran UB sebanyak 129. Data yang iambil 100 karyawan wanita di fakultas kedokteran UB. Hasil penelitian menunjukkan tidak terdapat hubungan yang signifikan . Berdasarkan Uji Chi-Square menunjukkan tingkat pengetahuan dan sikap terhadap deteksi dini pap smear (p=0,131) . kesimpulanya Hasil ini menunjukkan bahwa tidak ada hubungan yang signifikan antara sikap terhadap deteksi dini kanker serviks dengan tingkat partisipasi dalam tes Pap smear.

Kata kunci :*Human papillomavirus, kanker serviks, Pap smear, Pengetahuan, Attendude, Partisipasi.*

ABSTRACT

Cervical cancer occurs at the cervix cell which is at the lower part of the uterus that which connects the vagina. Human papillomavirus (HPV) and cervical cancer link was first demonstrated at the beginning of 1980 by German virologist named Harold zur hausen. Human papillomavirus (HPV) Infection is the main cause for 90% of invases cervical cancer cases worldwide. The people that have cancer in Indonesia for all ages in the year of 2013 have the percentage of 1.4% or 347 792 people. In Yogyakarta the prevalence has the highest cancer disease with the number of 4.1 %, meanwhile for Jawa Tengah is 68 638 people and Jawa Timur 61 230 people. Cervix cancer have one of the highest prevalence in Indonesia in 2013. Yogyakarta has high cervix cancer which is 1.5%. Based on the estimation Jawa Timur and Jawa Tengah has cervix cancer and breast cancer the most number.To find out the relationship between the level of knowledge and attitudes about early detection of cervical cancer with the participation of Pap smear tests on women who work in UB's medical faculties using questionnaire sheets with a population of 129 female employees in the medical faculty of UB. Data taken 100 female employees in the faculty UB medicine. The results showed no significant relationship. Based on Chi-Square Test shows the level of knowledge and attitudes towards early detection of pap smears (p = 0.131). Conclusions These results indicate that there is no significant relationship between attitudes toward early detection of cervical cancer

and the level of participation in Pap smear tests.

Keyword: *Human papillomavirus, Cervical cancer, Pap smear, Knowledge, Attidude, Participation.*

Introduction

Papillomaviruses come from papovaridae family. It is small, non-enveloped virus, it has diameter of 55nm. It also has two capsid proteins which are L1 and L2. In each virion capsid has a few copies (around 12 per virion) of the minor capsid protein, L2. It resembles a golf ball when it is seen under an electron microscope. The most common cancers in women is cervical cancer with the number of 440 000 new cases annually and 80% these happen in developing and underdeveloped countries. Human papillomavirus (HPV) Infection is the main cause for 90% of invases cervical cancer cases worldwide. Human papillomavirus (HPV) is the most vital etiologic factor in cancer cervix with most 99.7% tumours having HPV DNA. HPV-16 and HPV-18 are the 2 most common high-risk types found in more than 70%of malignancies. Other High-risk types includes 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 68, 73, and 82. Sexually transmitted HPV infections leads to one of three possible outcomes. First is anogenital warts (condyloma acuminatum) on or around the genital and arms in both genders. It is generally associated with HPV-6 and HPV-11 and do not lead to cancer. The stage is one of the most important factors in deciding how to treat the cancer and determining how successful treatment might be. Pap test using liquid-based cytology, the cells are collected similar to conventional Pap, but using a brush instead of a spatula. The head of the brush is vigorously shaken or broken off into a small pot of liquid containing preservative solution. The sample is then filtered or centrifuged to remove excess blood and debris. The cells are then transferred to the slide in a “mono” layer. The test is more expensive compared to conventional cytology and it needs additional supplies and sophisticated equipment. The preparation for Pap smear test is done when the patient isn’t in her menstruating period. The patient also should avoid vaginal intercourse, douching, use of tampons, use of medicinal vaginal cream or contraceptive cream for 24- 48hours prior to cervical screening. Ideally, pre-existing cervicitis should be treated prior to cervical screening. It should proceed in the presence of bleeding or cervicitis, as these symptoms may be related to cervical dysplasia or neoplasm, which may be detected with cervical screening. The equipment used are examination table with foot supports, examination light, metal or plastic speculum, examination gloves, cervical spatula and cytobrush, Liquid-based cytology container or glass slide and fixative. For complications to occur are extraordinarily rare and include minor bleeding and infection. The patient must be educated on the likelihood of vaginal spotting immediately after a pap smear is performed, as this is considered normal. Although the Pap smear is one of the best screening tests in medicine and its implementation has decreased the incidence of cervical cancer by over 50%, it does have its limitations. First, the sensitivity of one Pap smear for cervical dysplasia ranges from 30-87%. Plus, the intraobserver and interobserver reproducibility is poor and ranges from approximately 43-68% at best.

In considering the determinants of health, it`s important to know that low physical circumstances are not the only factors harmful to health. Lack of education for example can lead to reduced ability to find, understand and use health information. People with high educational level will differ significantly on their health seeking behaviour compared with low educational level people. The result showed that educational level is statistically significant on health seeking behaviour.

Instrument and Method

Research Planning

The sample was conducted using Chi-square using questionnaire. The overall population of female employees in

Universitas Brawijaya's medical faculties is 129. The researcher uses the Slovin formula for sampling the Slovin formula:

$$n = \frac{N}{1+N(e)^2}$$

where: n = sample size N = population size e = percent allowance.

Research Sampling

$$n = \frac{N}{1 + Ne^2}$$

$$\frac{129}{1+129(0.05)^2} = 97.5 \approx 98$$

Sampling of data is done by purposive sampling with random sampling techniques with a confidence level of 95%. The number of samples obtained by researchers is 98 samples.The random sampling data taken is 100 female employees in the Universitas Brawijaya's medical faculties.

Inclusive Criteria

The female employees of the Faculty of Medicine, Universitas Brawijaya who agreed to continue with the questionnaire.

Exclusive criteria

The female employees who carry out the surgical removal of the uterus are done permanently and female employees who leave the questionnaire or do not complete the questionnaire.

Research instrument

This study uses a research instrument using a questionnaire that has questions related to Pap smear tests and cervical cancer for female employees in the medical faculty of Brawijaya University.

1. The first part (A) contains demographic data such as basic personal data and reasons for conducting this research.
2. The second part (B) contains the variables of knowledge and attitudes about positive and negative questions and behavioural variables of the Pap smear health test, positive questions and negative questions using the Guttman scale by giving a sign (√) on the available choices.

Table 4.1 Positive and negative question score

Positive questions	Score	Negative Questions
Alternative answers		Alternative answers
Correct	1	Wrong
Wrong	0	Correct

For the questioner will be given to the sample is as in the attachment.

Level of knowledge

Measured by a questionnaire consisting of 23 question items with weights per item (0, 1 and 2). The level of knowledge will be classified into 3 good categories: 33-46 moderate: 17-32 and less: 0-16.

Attitude

Attitudes toward early detection. Measured using a 4-scale Likert scale questionnaire (STS-TS-S-SS). Good attitude is above average and bad attitude is below average. The scoring are classified as categorised very good (16-20): good (11-15): moderate (6-10): low (0-5).

Behaviour

Conduct a Pap smear test for early detection of cervical cancer. Measured with a right or wrong questionnaire.

Female staff in the medical faculty, they were chosen because they were optimal for the research studies to be carried out.

Techniques of collecting data

The data collected mainly uses observations with questionnaire sheets

made related to the research conducted.

Data analysis

Univariate data analysis was performed to look at demographic data descriptively for respondent characteristics. Chi-square data analysis uses regression correlation analysis to see the relationship between the level of knowledge and attitudes towards early detection of cervical cancer with the behaviour of conducting a Pap smear test.

Research results

Testing Research Instruments

The questionnaire that will be used as a data collection tool is first tested by a research instrument. Tests conducted are testing the validity and reliability. This test is intended to measure the level of accuracy and reliability of the questionnaire as a data collection tool. The results of the validity and reliability test of the research questionnaire can be explained as below:

Testing Instrument Validity

Testing the Validity of Attitude Variable Instruments

Testing the validity of the attitude variable instrument is done by correlating each item score to the total score using the Pearson Correlation technique (Product Moment), testing criteria using the Pearson Correlation technique states if the correlation coefficient (riT) ≥ table correlation (rtable) means the questionnaire items are declared valid or capable measure the variables it measures, so it can be used as a data collection tool. The summary of validity testing results is as the following table:

Table 5.1 Validity of Attitude Variable Instruments

Variable	Item	Correlation coefficient	Information
Attitude	Q4	0.822	Valid
	Q9	0.724	Valid
	Q11	0.842	Valid
	Q12	0.820	Valid
	Q15	0.544	Valid
	Q19	0.637	Valid

Based on a summary of the results of testing the validity of the research variables note that all items have the value of the item correlation coefficient with a total score (riT)> correlation table value (0.361). Thus the questionnaire items on the attitude variables are declared valid or able to measure these variables, so it can be used as a data collection tool in this study.

Testing the Validity of Instrument Variables for Actions

Testing the validity of the instrument of action variables is done by correlating each item score to the total score using the Biserial Point technique. Test criteria state if the correlation coefficient (riT) ≥ correlation table (rtable) means the questionnaire items are declared valid or able to measure the variables measured, so that it can be used as a data collection tool. The summary of validity testing results is as the following table:

Table 5.2 Validity of Instrument Variables for Actions

Variable	Item	Correlation coefficient	Information
Action	Q10	0.700	Valid
	Q12	0.700	Valid

Based on a summary of the results of testing the validity of research variables note that all items have the value of the item correlation coefficient with a total score (riT)> table correlation values (rtable = 0.361). Thus, the questionnaire items on the action variables are declared valid or able to measure these variables, so that it can be used as a data collection tool in this study.

Instrument Reliability Testing

Instrument Reliability Test Attitude Variables

The attitude variable reliability testing is intended to determine the reliability and consistency of the research instrument as a tool to measure the variables it measures. Reliability testing uses the Cronbach's Alpha technique. The test criteria state that the Cronbach's Alpha coefficient ≥ 0.6 means that the questionnaire items are declared to be reliable or consistent in measuring the measured variables. The summary of reliability test results is as the following table:

Table 5.3 Reliability Test Attitude Variables

Variable	Cronbach's Alpha	Information
Action	0.822	Reliable

Based on a summary of the results of testing the reliability of research instruments note that the attitude variable produces Cronbach's Alpha value> 0.6. Thus, the questionnaire items on the attitude variable are stated to be reliable or consistent in measuring the variable, so that it can be used as a data collection tool in this study.

Testing Instrument Reliability Variable Actions

The reliability test of the action variable is intended to determine the reliability and consistency of the research instrument as a tool to measure the variables it measures. Reliability testing uses the Split-Half technique. The test criteria state if the Spilled-Half coefficient ≥ 0.6 means the questionnaire items are declared reliable or consistent in measuring the measured variables. The summary of reliability test results is as the following table:

Table 5.4 Reliability Variable Actions

Variable	Spill-Half Coefficient	Information
Action	0.822	Reliable

Based on a summary of the reliability test results of the research instruments it is known that the action variable produces a value of the Spilt-Half coefficient> 0.6. Thus, the question / question item on the action variable is declared reliable or consistent in measuring the variable, so it can be used as a data collection tool in this study.

Characteristics of Respondents

Characteristics of Respondents by Age

The respondent's identity based on age can be seen through the following table and explanation:

Table 5.5 Characteristic Of Respondent By Age

Age	Frequency	Percentage
21 - 25 Years	5	5%
26 - 30 Years	21	21%
31 - 35 Years	37	37%
36 - 40 Years	23	23%
41 - 45 Years	9	9%
46 - 50 Years	3	3%
51 - 55 Years	2	2%
Total	**100**	**100%**

Based on the above table, it is known that of the 100 female employees in Universitas Brawijaya's medical faculty, who were involved in this study at most 37% of respondents had an age interval between 31-35 years. Furthermore, the second highest amount of 23% of respondents had an age interval between 36-40 years. Then the third most amounted to 21% of respondents had an age interval between 26-30 years. While at least 2% of respondents had an age interval between 51 - 55 years. This shows that most of the female employees in Universitas Brawijaya's medical faculty, who were involved in this study, had an age interval between 31 - 35 years.

Characteristics of Respondents

Based on Education

The identity of respondents based on education can be seen through the following table and explanation:

Table 5.6 Characteristics of Respondents Based on Education

Education	Frequency	Percentage
High School	6	6%
Diploma	11	11%
Bachelor Degree	58	58%
Master's Degree	22	22%
Doctoral Degree	3	3%
Total	**100**	**100%**

Based on the above table, it is known that of the 100 female employees in Universitas Brawijaya's medical faculty, 6% of respondents were involved in having a high school / vocational high school education. Furthermore, as many as 11% of respondents had Diploma final education. Then as many as 58% of respondents had final education Bachelor degree. As many as 22% of respondents had Master's degree education. While as many as 3% of respondents had final education Doctoral degree. This shows that most of the female employees in Universitas Brawijaya's medical faculties, who were involved in this research, had bachelor's degree.

Characteristics of Respondents Based on Occupation

The identity of respondents based on occupation can be seen through the following table and explanation:

Table 5.7 Characteristics of Respondents Based on Occupation

Occupation	Frequency	Percentage
Private employees	46	46%
Lecturer	18	18%
Staff	13	13%
Admin	12	12%
Government employees	9	9%
Analyst	2	2%
Lab staff	1	1%
Total	**100**	**100%**

Based on the above table, it is known that out of 100 female employees in the Universitas Brawijaya medical faculty, the most involved in this study amounted to 46% of respondents had jobs as private employees. Furthermore, the second most amounted to 18% of respondents had job as a lecturer / teacher. Then the third most amounted to 13% of respondents had jobs as employees / staff. While at least 1% of respondents have jobs as laboratory assistants. This shows that most of the female employees in Universitas Brawijaya's medical faculty involved in this study had jobs as private employees.

Characteristics of Respondents Based on Married Status

Respondent's identity based on married status can be seen through the following table and explanation:

Table 5.8 Characteristics of Respondents Based on Married Status

Marriage Status	Frequency	Percentage
Married	85	85%
Single	15	15%
Total	**100**	**100%**

Based on the above table, it is known that out of 100 female employees in Universitas Brawijaya's medical faculty, 85% of respondents were married. While as many as 15% of respondents were single. This shows that most of the female employees in Universitas Brawijaya's medical faculty involved in this study were married.

Descriptive Analysis

Descriptive Analysis of the Level of Knowledge about Early Detection of Cervical Cancer

Descriptive analysis of the level of

knowledge about early detection of cancer can be known as the following table:

Table 5.9 Level of knowledge

Level of Knowledge	Frequency	Percentage
Low (0-16)	0	0%
Moderate (17-32)	36	36%
High (33-46)	64	64%
Total	**100**	**100%**

Based on the above table, it is known that out of 100 female employees in Universitas Brawijaya's medical faculty involved in this study, 36% of respondents had sufficient level of knowledge about early detection of cervical cancer, and 64% of respondents had high level of knowledge about early detection of cancer cervix. This shows that most female employees in Universitas Brawijaya's medical faculty involved in this study had high level of knowledge about early detection of cervical cancer.

Descriptive Analysis of Attitudes Toward Early Detection of Cervical Cancer

Descriptive analysis of attitudes towards early detection of cancer can be seen as the following table:

Table 5.10 Level of Attitudes

Attitudes	Frequency	Percentage
Low (0-5)	1	1%
Moderate (6-10)	16	16%
Good (11-15)	78	78%
Very good (16-20)	5	5%
Total	**100**	**100%**

Based on the above table, it is known that out of 100 female employees in Universitas Brawijaya's medical faculty involved in this study, 1% of respondents had less attitude towards early detection of cervical cancer, then 16% of respondents had sufficient attitude towards early detection of cervical cancer. Next 78% of respondents had good attitude towards early detection of cervical cancer, while 5% of respondents had very good attitude towards early detection of cervical cancer. This shows that most of the female employees in Universitas Brawijaya's medical faculty involved in this study had good attitude towards early detection of cervical cancer.

Descriptive Analysis of Participation Rates of the Pap Smear Test

Descriptive analysis of the Pap smear participation rate can be seen as the following table:

Table 5.11 Participation Rates of the Pap smear Test

Participation Test	Frequency	Percentage
Present	47	47%
Absent	53	53%
Total	**100**	**100%**

Based on the above table, it is known that of the 100 female employees in Universitas Brawijaya's medical faculty involved in this study as many as 47% of respondents told they had never taken Pap smear test, and 53% of respondents told they had never taken Pap smear test. This shows that most of the female employees in Universitas Brawijaya's medical faculty involved in this study never had Pap smear test.

Cross Tabulation of Respondents' Identities with Pap Smear Test Participation Rates

Cross Tabulation of Age Variables with Participation Rates of the Pap Smear Test

Cross tabulation of age variables with Pap smear test participation rates can be identified as the following table:

Table 5.12 Age Variables with Participation Rates of the Pap smear Test

Age	Level of Participation test				Total	
	Do not Have		Have			
	N	%	N	%	N	%
21 - 25 Years	3	3.00%	2	2.00%	5	5.00%
26 - 30 Years	17	17.00%	4	4.00%	21	21.00%
31 - 35 Years	20	20.00%	17	17.00%	37	37.00%
36 - 40 Years	10	10.00%	13	13.00%	23	23.00%
41 – 45 Years	3	3.00%	6	6.00%	9	9.00%
46 - 50 Years	0	0.00%	3	3.00%	3	3.00%
51 - 55 Years	0	0.00%	2	2.00%	2	2.00%

The calculation results show that out of 100 female employees in Universitas Brawijaya's medical faculties participated in this study, at most 17% of respondents who were in the age interval between 31-35 years said that they had taken the Pap smear test, then the second most was 13% respondents who were at the age interval between 36 - 40 years said they had ever taken a Pap smear test, the third most at 6% of respondents who were at an age interval between 41 - 45 years said they had taken a Pap smear test.

While at most 20% of respondents who were at the age interval between 31-35 years said they had never taken Pap smear test because the reasons included there were no chance, fear of the Pap smear, and not married. Then the second most amounting to 17% of respondents who were at the age interval between 26-30 years said they had never taken Pap smear test with the reasons of which were not married and there is no time. Next is the third highest of 10% of respondents who were in the age interval between 36-40 years said they had never taken Pap smear test with the reasons for which there was no time and no chance.

Cross Tabulation of Educational Variables with Participation Rates of the Pap Smear Test

Cross tabulation of educational variables with Pap smear test participation rates can be identified as the following table:

Table 5.13 Educational Variables with Participation Rates of the Pap smear Test

Education	Level of Participation test				Total	
	Do not have		Have			
	N	%	N	%	N	%
High school	4	4.00%	2	2.00%	6	6.00%
Diploma	7	7.00%	4	4.00%	11	11.00%
Bachelor degree	27	27.00%	31	31.00%	58	58.00%
Master's degree	14	14.00%	8	8.00%	22	22.00%
Doctoral degree	1	1.00%	2	2.00%	3	3.00%

The calculation results shows that out of 100 female employees in Universitas Brawijaya's medical faculties participated in this study, 2% of respondents who had high school / vocational education told that they had taken Pap smear test, then 4% of respondents who had Diploma education told that they had taken Pap smears test, 31% of respondents who had Bachelor degree education told that

they had taken a Pap smear test, the next was 8% of respondents who had Master's degree education told that they had taken Pap smear test, while 2% of respondents who had Doctoral degree education told they had taken Pap smear test.

While 4% of respondents who had high school / vocational education stated that they had never taken Pap smear test on the grounds that they were not married and do not need to have Pap smear test. Then by 7% of respondents who had Diploma education told that they had never taken Pap smear test with reasons that includes fear, no chance, and trauma with negative stories. As many as 27% of respondents who had a Bachelor degree education told they had never taken Pap smear test because they had no time, had no chance, were not married, and were afraid. Next, 14% of respondents who had Master's degree stated that they had never taken Pap smear test because they had no time, had no chance, were not married, and were afraid. Whereas 1% of respondents who had Doctoral degree stated that they had never taken Pap smear test because they had not had time to do the Pap smear test.

Cross Tabulation of Occupational Variables with Participation Rates of the Pap Smear Test

The cross tabulation of work variables with the Pap smear test participation rate can be identified as the following table:

Table 5.14 Occupational Variables with Participation Rates of the Pap smear Test

Occupational	Level of participation test				Total	
	Do not have		Have			
	N	%	N	%	N	%
Private employees	21	21.00%	23	23.00%	44	44.00%
Lecturer	12	12.00%	6	6.00%	18	18.00%
Staff	7	7.00%	6	6.00%	13	13.00%
Admin	7	7.00%	6	6.00%	13	13.00%
Government Employees	3	3.00%	6	6.00%	9	9.00%
Analyst	2	2.00%	0	0.00%	2	2.00%
Lab staff	1	1.00%	0	0.00%	1	1.00%

The calculation results showed that out of 100 female employees in Universitas Brawijaya's medical faculty participated in this study, at most 23% of respondents who had private employee jobs claim to had taken the Pap smear test, then the second most at 6% of respondents each has job as a lecturer / teacher, staff, admin, and government employees told they had taken the Pap smear test.

While at most 21% of respondents who had job as private employees stated that they had never taken Pap smear test on the grounds that they were not married, did not need to take Pap smear test, had

no time, had no chance, and were afraid. Then the second most amounting to 12% of respondents who had jobs as lecturers / instructors told they had never taken Pap smear test with the reasons that includes fear, no chance, no time, and not married. Next, 7% of respondents, each of whom had job as an employee / staff and admin, stated that they had never taken Pap smear test on the grounds that there was no time, no chance, not married, and afraid, and trauma with negative stories.

Cross Tabulation of Marriage Status Variables with Participation Rates of the Pap smear Test

Cross tabulation of marital status variables with Pap smear test participation rates can be found as the following table:

Table5.15 Marriage Status Variables with Participation Rates of the Pap smear Test

Marriage status	Level of participation test				Total	
	Do not have		**Have**			
	N	**%**	**N**	**%**	**N**	**%**
Married	40	40.00%	45	45.00%	85	85.00%
Single	13	13.00%	12	12.00%	15	15.00%

The calculation results show that out of 100 female employees in Universitas Brawijaya's medical faculties participated in this study, 45% of married respondents told that they had taken the Pap smear test, then 12% of single respondents said they had ever taken Pap smear test. While 40% of respondents who were married stated that they had never taken Pap smear test on the grounds that there were no time, no chance, and fear for the Pap smear test. Then 13% of single respondents stated that they had never taken Pap smear test because they were not married.

Relationship Analysis of Knowledge Levels of Early Detection of Cervical Cancer with Participation Rate of Pap smear Test

The value of P-Value which is below 0.05 is considered significant whereas if the value of P-Value above 0.05 is considered as insignificant. The relationship of the level of knowledge about early detection of cervical cancer with the level of participation in Pap smear tests can be known as the following table:

Table 5.16 Knowledge Levels of Early Detection of Cervical Cancer with Participation Rate of Pap smear Test

Level Of Knowledge	Level of participation test				Total		P-Value
	Do not have		**Have**				
	n	**%**	**N**	**%**	**N**	**%**	
Low (0-16)	0	0.00%	0	0.00%	0	0.00%	0.701
Moderate (17-32)	20	20.00%	16	16.00%	36	36.00%	
High (33-46)	33	33.00%	31	31.00%	64	64.00%	

The calculation results showed that out of 100 female employees in Universitas Brawijaya's medical faculties participated in this study, as many as 20% of respondents who had sufficient level of knowledge about early detection of cervical cancer told they had never taken Pap smear test, while 16% of respondents who had sufficient level of knowledge about early detection of cervical cancer states that taken Pap

smear test. Then as many as 33% of respondents who had high level of knowledge about early detection of cervical cancer told they had never taken Pap smear test, while as many as 31% of respondents who had high level of knowledge about early detection of cervical cancer told they had taken Pap smear test.

Testing the relationship between the level of knowledge about early detection of cervical cancer with the level of participation in Pap smear tests performed using Chi Square. Based on the table note that the probability value of 0.7016. These results indicate the probability> level of significance (alpha (α = 5%)). Thus, it can be stated that there is no significant relationship between the level of knowledge about early detection of cervical cancer with the level of participation in Pap smear tests.

Analysis of the Relationship of Attitudes Toward Early Detection of Cervical Cancer with the Participation Rate of the Pap smear Test

The value of P-Value which is below 0.05 is considered significant whereas if the value of P-Value above 0.05 is considered as insignificant. The relationship of attitude towards early detection of cervical cancer with the level of participation in Pap smear tests can be known as the following table:

Table 5.17 Attitudes toward Early Detection of Cervical Cancer with the Participation Rate of the Pap smear Test

Attitudes	Level of participation test				Total		P-Value
	Do not have		**Have**				
	N	**%**	**N**	**%**	**n**	**%**	
Low (0-5)	0	0.00%	1	1.00%	1	1.00%	0.131
Moderate (6-10)	5	5.00%	11	11.00%	16	16.00%	
Good (11-15)	46	46.00%	32	32.00%	78	78.00%	
Very good (16-20)	2	2.00%	3	3.00%	5	5.00%	

The calculation results showed that out of 100 female employees in Universitas Brawijaya's medical faculties participated in this study, none of the respondents had low attitude towards early detection of cervical cancer, claimed they had never taken Pap smear test, while as many as 1% of respondents who had lack of attitude towards early detection of cervical cancer stated they had taken Pap smear test. Then as many as 5% of respondents who had an adequate attitude towards early detection of cervical cancer told they had never taken Pap smear test, while as many as 11% of respondents who had sufficient attitude towards early detection of cervical cancer told they had taken Pap smear test. Next as many as 46% of respondents who had good attitude towards early detection of cervical cancer told they had never taken Pap smear test, while as many as 32% of respondents who had good attitude towards early detection of cervical cancer told they had taken Pap smear test. Whereas 2% of respondents who had very good attitude towards early detection of cervical cancer told they had never taken Pap smear test, while as many as 3% of respondents who had very good attitude towards early detection of cervical cancer told they had taken Pap smear test.

Testing the relationship between attitudes toward early detection of cervical cancer with the level of participation in Pap smear tests performed using Chi Square. Based on the table note that the probability value of 0.131. These results indicate the probability> level of significance (alpha (α = 5%)). Thus, it can be stated that there is no significant relationship between attitudes toward early detection of cervical cancer with the level of participation in Pap smear tests.

Descriptive Analysis of Action Variables

Descriptive Analysis of the Place of Pap smear Tests

Descriptive analysis of where to conduct the Pap smear test is informed through the following table and explanation:

Table 5.18 Place of Pap smear Tests

Place test taken	Frequency	Percentage
Hospital	28	60%
Primary healthcare	7	15%
Clinic	12	26%
Total	**47**	**100%**

Based on the above table, it is known that of the 47 female employees in Universitas Brawijaya's medical faculty who have had Pap smears, 60% of respondents have had Pap smears in hospitals, then 15% of respondents have Pap smear tests at the primary healthcare, while as many as 26 % of respondents had Pap smear test at the doctor's clinic. This shows that most of the female employees in Universitas Brawijaya's medical faculty who have done Pap smear tests, do the tests at the hospital.

Descriptive Analysis of people whom accompany respondent for Pap smear Tests

Descriptive analysis of friends to do a Pap smear test informed through the following tables and explanations:

Table 5.19 People whom accompany respondent for Pap smear Tests

Place test taken	Frequency	Percentage
Husband	13	28%
Mother	2	4%
Friend	32	68%
Total	**47**	**100%**

Based on the table above, it is known that of 47 female employees in Universitas Brawijaya's medical faculties who had Pap smears, 28% of respondents took Pap smears accompanied by their husbands, then 4% of respondents took Pap smears accompanied by mothers (biological / in-laws), while as many as 68% of respondents took Pap smear test accompanied by a friend. This shows that most of the female employees in Universitas Brawijaya's medical faculty who have done Pap smear tests, they did the tests accompanied by friends.

Descriptive Analysis of the Previous Time for Conducting the Pap smear Test

Descriptive analysis of the last time conducting a Pap smear test was informed through the following table and explanation:

5.20 Previous Time for Conducting the Pap smear Test

Previous Time For Last Time Test taken	Frequency	Percentage
1 Month	3	6%
6 Months	8	17%
1 Year	36	77%
Total	**47**	**100 %**

Based on the above table, it is known that of the 47 female employees in Universitas Brawijaya's medical faculty who have taken Pap smears, as many as 6% of respondents stated that the last

time they did Pap smear test was one month ago, then 17% of respondents told that the last time they did Pap smear test six months ago, while 77% of respondents stated that the last time they did Pap smear test was one year ago. This shows that most of the female employees in Universitas Brawijaya's medical faculty who had done Pap smears, stated that the last time they did Pap smears was one year ago.

Descriptive Analysis of the Reasons for Doing a Pap smear Test

Descriptive analysis of the reasons for conducting a Pap smear test is informed through the following table and explanation:

Table 5.21 Reasons for Doing a Pap smear Test

Reasons for Doing the Test	Frequency	Percentage
Husband support	4	9%
Have symptoms	3	6%
Cervical cancer prevention action	40	85%
Total	**47**	**100%**

Based on the above table, it is known that of the 47 female employees in Universitas Brawijaya's medical faculties who have taken Pap smear test, 9% of respondents stated that the reason they had Pap smear test was due to their husband's encouragement, then 6% of respondents stated that the reason they did Pap smear test is due to a perceived complaint, while as many as 85% of respondents stated that the reason they did Pap smear test was as a preventative measure for cervical cancer. This shows that most of the female employees in Universitas Brawijaya's medical faculty who had done Pap smear tests, stated that the reason they did Pap smear tests was as a preventative measure for cervical cancer.

Descriptive Analysis of Transportation to Pap smear Test Location

Descriptive analysis of transportation to Pap smear test location is informed through the following table and explanation:

Table 5.22 Transportation to Pap smear Test Location

Transportation to Pap smear test Location	Frequency	Percentage
Motor vehicle	42	89%
Public Vehicle	4	9%
Walking	1	2%
Total	**47**	**100 %**

Based on the above table, it is known that of the 47 female employees in Universitas Brawijaya's medical faculty who had done Pap smear test, 89% of respondents used motorized vehicles to reach the location of health services to do Pap smear test, then 9% of respondents used public transportation to reach health service location to do Pap smear test, while as many as 2% of respondents walked to reach health service location to do Pap smear test. This shows that most of the female employees in Universitas Brawijaya's medical faculties who have done Pap smear tests stated that they used motorized vehicles to reach the health service location to do Pap smear tests.

Descriptive Analysis Carrying Out Continuous Pap smear Tests

Descriptive analysis conducts continuous Pap smear test checks through the following tables and explanations:

Table 5.23 Carrying out Continuous Pap smear Tests

Continuous Test Method	Frequency	Percentage
Yes	31	31%
No	69	69%
Total	**100**	**100%**

Based on the table above, it is known that of the 100 female employees in

Universitas Brawijaya's medical faculties participated in this study, 31% of respondents stated that they would carry out an examination using the Pap smear test method continuously, then 69% of respondents told that they would not check with the Pap smear test method on an ongoing basis. This showed that most of the female employees in Universitas Brawijaya's medical faculties participated in this study stated that they would not carry out continuous Pap smear tests.

Descriptive Analysis of Husband's Support for Conducting a Pap smear Test

Descriptive analysis of the husband's support for the Pap smear test is informed through the following table and explanation:

Table 5.24 Husband's Support for Conducting a Pap smear Test

Husband support	Frequency	Percentage
Yes	67	78%
No	19	22%
Total	**86**	**100%**

Based on the above table, it is known that from 86 female employees in Universitas Brawijaya's medical faculty who were already married, as many as 78% of respondents stated that they got their husband's support to do Pap smear test, then as many as 22% of respondents told that they did not get their husband's support to do Pap smear test. This shows that most of the female employees in Universitas Brawijaya's medical faculty who were already married, stated that they got the support of their husbands to do Pap smear test.

Descriptive Analysis Informing Others about the Pap smear Test

Descriptive analysis informs others about the Pap smear test informed through the following tables and explanations:

Table5.25 Informing Others about the Pap smear Test

Sharing Information About Cervical Cancer Early Detection	Frequency	Percentage
Yes	67	67 %
No	33	33 %
Total	**100**	**100 %**

Based on the above table, it is known that of the 100 female employees in Universitas Brawijaya's medical faculty participated in this study, as many as 67% of respondents stated that they would share information about the Pap smear test as an early detection of uterine cancer to friends, relatives, or others, then 33% of respondents stated that they would not share information about the Pap smear test as an early detection of uterine cancer to friends, relatives, or others. This shows that most female employees in Universitas Brawijaya's medical faculties participating in this study stated that they would share information about the Pap smear test as an early detection of uterine cancer to friends, relatives, or others.

Discussion

This study aims to determine the relationship of the level of knowledge and attitudes towards early detection of cervical cancer with the level of Pap smear test participation in female employees of the Faculty of Medicine in Universitas Brawijaya with respondents of 100 employees.

The most common cancers in the community include cervical cancer. Human papillomavirus (HPV) infection is a major factor in cervical cancer. This is the third most common malignancy in women worldwide, and still stands as the leading cause of cancer-related deaths

in women in developing countries.

Identity of Respondents

From this research, it is shown that the majority of female employees in Universitas Brawijaya's medical faculty the highest level of education was Bachelor degree. Most respondents were married. In general women before age 32 were considered most fertile as after age 32 women`s fertility starts to decrease and when they reach age 37 the fertility declines more significantly, finally when women reached the age 37 the fertility is dramatically fall. In research conducted the respondent age mostly got were between ages 31-35 years old thus their fertility level decreases by age (Hum 2010).

Knowledge level results and early detection and participation of Pap smear tests

Knowledge on Pap smear screening

Majority of the respondents knew and had heard about Pap smear test. As much as 64% of the respondents got high level of knowledge score, even though they were high in knowledge about Pap smear, some of them still have limited knowledge on the procedures regarding the test. Based on the research which conducted by (Oon 2011) stated that many respondents have high knowledge and the knowledge about Pap smear was adequate in of the respondents (Thippeveeranna, 2013).

Attitude towards Pap smear screening

Regardless of their groups, respondents often did not feel the necessity to do the Pap smear test due to absence in symptoms. The respondents also mentioned that they would conduct the Pap smear test if they had reproductive problems. For the groups that never once done the Pap smear test, they mentioned that do not want to do the Pap smear test due to embarrassment and fear of the test procedure. Most of the female employees in Universitas Brawijaya's medical faculty involved in this study have a good attitude towards early detection of cervical cancer. Based on the research conducted by (Oon 2011) stated that many respondents does not feel the necessity to do Pap smear test due to absent in symptoms. From the literature (Thippeveeranna, 2013) inadequate attitude, when the woman presented reasons for the examination other than the prevention of Cervical Cancer.

Participation of Pap smear test

Most of the female employees who were in the Universitas Brawijaya's medical faculty involved in this study had never had Pap smear test. There were also those who perceived themselves as being healthy and therefore did not need Pap smear at this moment. Based on the research conducted by (Oon, 2011) stated that many respondents did not take Pap smear test. Beliefs about Pap smears appear to be related to actual participation in cancer screening (Esquer 2003). Many believed that Pap smear is performed only on women who are symptomatic (Wong lw 2009).

Place test conducted

Majority of the respondents conducted the Pap smear test at the nearest hospital around them. This made them easier to have regular check-up and also easy access to healthcare service.

Accompany

As much as 68% of the respondents choose their friends to accompany them to take the Pap smear test as they were more comfortable around their friends compared to other people which were close to them.

The previous time test taken and continuity taking the test.

Based on the data collected, majority respondents took 1 year before from the time the data is being collected. Most of the respondents mentioned that lack of time was one of the barriers to women's access to Pap smear screening services. Various situations were associated with the lack of time such as being busy with their tasks either as housewives and working women as well as long there was also a long waiting time especially at government's clinics. Majority of the respondent did not continue taking the Pap smear test frequently.

Support

Generally, there was very little involvement of family members for cervical cancer screening but there was also some support from the respondent`s husband to do the test. There was lack of family and spousal support for women who wanted to do Pap smears. Some respondents never discussed Pap smear with their respective spouses and vice versa. But they felt that if they were to discuss with their spouses, they would definitely gain their support. As a step of prevention of cervical cancer, majority acted on their own to take care of their health.

Accessibility

Majority of the respondents noted that they brought their own vehicle to the location where they conducted the test and accessibility was never a problem for Pap smear test.

Information spreading

Respondents stated that they would share information about the Pap smear test as an early detection of cervical cancer to friends, relatives, or others when they are spending time around them.

Relationship between attitudes toward early detection of cervical cancer with the level of participation in Pap smear tests

Testing the relationship between attitudes toward early detection of cervical cancer with the level of participation in Pap smear tests performed using Chi Square. Based on the table note that the probability value of 0.131, the value of P-Value which is below 0.05 is considered significant whereas if the value of P-Value above 0.05 is considered as insignificant. These results indicate the probability> level of significance (alpha (α = 5%)). Thus, it can be stated that there is no significant relationship between attitudes toward early detection of cervical cancer with the level of participation in Pap smear tests. The limited knowledge and nonchalant attitude as well as ignorance about cervical cancers and Pap smear screening are the two most significant factors affecting women from being screened. Among other reasons for low participation in Pap smear test included women not perceiving themselves as being susceptible to cervical cancer because they had no symptoms of illness and this is further strengthened because of inadequate information and knowledge about the importance of Pap smear screening. Regarding women's attitude towards Pap smear screening, embarrassment and fear are seen to be as a main barrier to undergo Pap smear test. Fear can be associated with many elements such as fear of pain, fear of getting negative results, procedure. The concept of embarrassment can be associated with strong cultural factors since majority of women mentioned being shy if they have to expose their private parts and Pap smear test is a very intimate procedure. Furthermore, there was also gender issue involved in that they would be further embarrassed if the Pap smears were performed by male doctors. In conclusion, the low uptake of Pap smear screening is associated with various factors some of which were noted in previous studies (Oon, 2011) Although knowledge of Pap smear as a screening procedure for cervical cancer is high, practice is still low (Thippeveeranna, 2013).

Research Limitations

One of the limitations faced in this study is the different views of each respondent on the questions in the questionnaire and the explanations that had been given. Where it can lead to interpretation in answering different questionnaires so as to produce different conclusions in the process of analysis and discussion of this study.

Conclusion

Based on the results and discussion, it can be concluded that:

1. The respondents have high level of knowledge of respondents and a good attitude towards early detection of cervical cancer.
2. Majority of the respondents had never participated for a Pap smear test.
3. There is no significant relationship was found between the level of knowledge and attitudes toward early detection of cervical cancer and the level of participation in Pap smear tests.

Suggestion

Based on the results and discussion, suggestions can be taken that:

1. Need to educate about cervical cancer in the community with more.
2. Need more attention to personal health.

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