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Factor Analysis Infertility Events in Poly Gynekology Hospitals dr. H. Slamet Martodirdjo Pamekasan

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ABSTRACT

The growing assumption in the community is that infertility is caused by women, whereas in men it can also occur at infertility of 20-40%, in women 30-55%, a combined factor of 35% and causes that cannot be identified are 5-15%. The cause of infertility is caused by women and men, the causes also vary. Ranging from sexual problems to genetics. The purpose of the study was to determine the factors that influence the incidence of infertility in the obstetrical Poly of RSUD Dr.H. Islamet Martodirdjo Pamekasan. Quantitative research design with cross sectional approach. The study was conducted on September 17 to November 23, 2018 with a population of 108 couples and a sample of 85 couples with a sample random sampling technique. Data collection of independent variables with questionnaires and dependent variables by means of medical records. Data analysis using logistic regression test. Based on the results of logistic regression statistics, the wife's physical activity variables were p value 0.484 and husband's p value 0.628, wife's nutritional status p value 0.651 and husband's p value 0.392, wife's smoking p value 0.999 and husband's p value 0.028, wife's diet p value 0.306 and husband p value 0.138 then infertile incidence simultaneously influenced by the variable significantly p value 0,000 at $\alpha = 0.05$. Infertility events are jointly influenced by physical activity, nutritional status, smoking and diet, and can be influenced by other factors related to reproductive organs in couples of childbearing age. Factors that greatly influence infertility in husbands are smoking. Because cigarette smoke is a chemical that changes DNA, so it is not able to fertilize the egg, slowing down the motility sperm to reach the egg so fertilization does not occur.

Keywords: Physical activity, nutritional status, smoking, diet, infertile events

INTRODUCTION

Infertility is the inability of a couple to achieve pregnancy after one year regular sexual intercourse and not using contraception. (Setyaningrum, 2014). For married couples to have children is highly desirable. However, as much as 15% of couples in the world to have impaired fertility or infertility (Agarwa et al, 2015).

Based on WHO notes, in the world there are about 50-80 million couples have infertility problems and annually appeared about 2 million infertile couples. There is a possibility that number will continue to rise. Based on the research of every 100 couples, in couples who already have children and they want the child back 15% were below normal fertility. Infertility has increased the incidence of 8- 12% of the population worldwide childbirth.

Based on preliminary data survey on July 17, 2018 At 09:30 pm conducted by researchers at the Hospital Dr. H. Slamet Martodirdjo Pamekasan obtained data of married couples who are infertile, not pick the child and routine visits in the year 2017 as many as 108 patients with an average age of patients is 18-45 years (H.Slamet Hospital Medical Record Martodirdjo Pamekasan, 2017). whereas in January-July 2018 there were 48 patients (H.Slamet Hospital Medical Record Martodirdjo Pamekasan, 2018).

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Based Results Multivariate logistic regression analysis to simultaneously show significant results 0.049. It can be concluded that all the independent variables (diet, nutritional status, smoking, activity) jointly affect the dependent variable (incidence of infertile) husband. Based on the coefficient Cox and Snell R Square R 0.098 or 1% and the coefficient Nagelkerke R Square .309 or 30%. Nagelkerke coefficient R Square of 30% means that the independent variables (diet, nutritional status, smoking, activity) affect the dependent variable (incidence of infertility) in general by 30% while 70% influenced by other factors not included in the model testing. Based on the results of logistic regression statistical tests in hospital obtained a) Variable diet obtained p value of 0.138> α = 0.05, so that H0 and H1 rejected. It can be concluded that the variable diet has no effect on the husband's infertility, b) Variable nutritional status obtained p value of 0.392> α = 0.05, so H0 and H1 rejected. It can be concluded that the variable does not affect the nutritional status of the husband's infertility c) Variable smoke obtained p value of 0.028 <α = 0.05, so H0 is rejected and H1 accepted. It can be concluded that smoking variables affect the husband's infertility and d) Variable activity obtained p value of 0.628> α = 0.05, so H0 and H1 rejected. It can be concluded that the variable does not affect the activity of the husband's infertility. It can be concluded that the variables smoke dominant effect on the incidence of infertile husband.

Based on multivariate analysis with logistic regression simultaneously showed significant gains 0,000. It can be concluded that all the independent variables (diet, nutritional status, smoking, activity) jointly affect the dependent variable (incidence of infertile) wife. Based on the coefficient Cox and Snell R Square R 0,046 or 5% and the coefficient R Square Nagelkerke 0,072 or 7%. Nagelkerke coefficient R Square of 7% means the independent variables (diet, nutritional status, smoking, activity) affect the dependent variable (incidence of infertility) is generally equal to 7% was 93% influenced by other factors not included in the model testing. Based on the above table test results of logistic regression statistics obtained a) Variable diet obtained p value of 0.306> α = 0.05, so H0 and H1 rejected. It can be concluded that the variable diet has no effect on the wife's infertility, b) Variable nutritional status obtained p value of 0.651> α = 0.05, so H0 and H1 rejected. It can be concluded that the variable does not affect the nutritional status of infertility in the wife, c) Variable smoke obtained p value of 0.999> α = 0.05, so H0 and H1 rejected. It can be concluded that the variable smoking does not affect the wife's infertility, d) Variable activity obtained p value of 0.484> α = 0.05, so H0 and H1 rejected. It can be concluded that the variable does not affect the activity of the wife's infertility. b) Variable nutritional status obtained p value of 0.651> α = 0.05, so H0 and H1 rejected. It can be concluded that the variable does not affect the nutritional status of infertility in the wife, c) Variable smoke obtained p value of 0.999> α = 0.05, so H0 and H1 rejected. It can be concluded that the variable smoking does not affect the wife's infertility, d) Variable activity obtained p value of 0.484> α = 0.05, so H0 and H1 rejected. It can be concluded that the variable does not affect the activity of the wife's infertility. b) Variable nutritional status obtained p value of 0.651> α = 0.05, so H0 and H1 rejected. It can be concluded that the variable does not affect the nutritional status of infertility in the wife, c) Variable smoke obtained p value of 0.999> α = 0.05, so H0 and H1 rejected. It can be concluded that the variable smoking does not affect the wife's infertility, d) Variable activity obtained p value of 0.484> α = 0.05, so H0 and H1 rejected. It can be concluded that the variable does not affect the activity of the wife's infertility. so that H0 and H1 rejected. It can be concluded that the variable smoking does not affect the wife's infertility, d) Variable activity obtained p value of 0.484> α = 0.05, so H0 and H1 rejected. It can be concluded that the variable does not affect the activity of the wife's infertility. so that H0 and H1 rejected. It can be concluded that the variable smoking does not affect the wife's infertility, d) Variable activity obtained p value of 0.484> α = 0.05, so H0 and H1 rejected. It can be concluded that the variable does not affect the activity of the wife's infertility.

For Educational Institutions are expected institution is able to print health professionals (midwives) and can conduct professional training on infertility examination so that after graduating from educational institutions of medical personnel (nurses) have specialized skills in dealing with infertility patients. For dr. H. Slamet Martodirdjo expected Agencies Pamekasan more intensive health services in providing health education, especially about events in the infertile couples of childbearing age so that the detection of the occurrence of infertility can be further improved to

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prevent infertility. For husband and wife should be able to prevent infertility to quit smoking, as smokers and passive smokers may harm fertility reproductive organs so difficult for married couples to have children. For further research is expected to further develop this research investigators to examine the more dominant factors affecting the occurrence of infertility. Factors that have not been examined is an STD, drug users, Polycystic ovary syndrome, histurisme and Menstrual Cycle (oligomenorrhea, Amenorhe, Cycle Anovulator).

MATERIALS AND METHODS

The design used in this study is cross-sectional.The population in this study were all married couples who make regular visits to program content poly pregnant amounted to 108 patients. The samples used were mostly couples who totaled 85 people. The independent variable in this study is a physical activity, Nutritional Status, Smoking and Eating. The dependent variable in this study is Genesis Infertility. The study was conducted on the 17th of September 2018 until 23 November 2018. The data used in observation and Medical Records. Based on multivariate analysis with logistic regression simultaneously showed significant gains 0,000. Based on multivariate analysis and logistic regression to simultaneously show significant results 0.049. And this research has passed the ethical test conducted at STIKES Surya Mitra Husada Kediri.

RESULTS

Table 1. Characteristics of Respondents by Age

Table 1.1 Characteristics of Respondents by Age Wife

characteristics	N	f (%)
age wife		
<20 years	10	11.8
20-35 years	59	69.4
> 35 years	16	18.8
Total	85	100

Source: Primary Data of research in 2018

Based on the above table shows that of 85 Wives, most of the respondents have age between 20-35 years of the 59th Wife (69.4%).

Table 1.2 Characteristics of Respondents by Age Husband

characteristics	N	f (%)
age husband		
<20 years	12	14.1
20-35 years	54	63.5
> 35 years	19	22.4
Total	85	100

Source: Primary Data of research in 2018

Based on the above table shows that of 85 husband, the majority of respondents have between 20-35 years of age as many as 54 husbands (63.5%).
Table 2 Characteristics of Respondents by Job

Table 2.1 Characteristics of Respondents by Job's wife

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characteristics	N	f (%)
Work wife		
Housewife / Not Working	22	25.9
PNS	10	11.8
Private	43	50.6
farmer	10	11.8
Total	85	100

Source: Primary Data of research in 2018

Based on the above table shows that of the 85 wives, half of the wife works as Private as many as 43 wives (50.6%).

Table 2.2 Characteristics of Respondents by Job husband

characteristics	N	f (%)
husband Works		
IRT / Not Working	10	11.8
PNS	20	23.5
Private	31	36.5
farmer	24	28.2
Total	85	100

Source: Primary Data of research in 2018

Based on the above table shows that out of 85 respondents, nearly half of respondents worked as Private as many as 31 respondents (36.5%).

Table 3 Characteristics of Respondents by Education

Table 3.1 Characteristics of Respondents by Education Wife

characteristics	N	f (%)
Education wife		
SD	23	27.1
SMP	17	20.0
High School	20	23.5
PT	25	29.4
Total	85	100

Source: Primary Data of research in 2018

Based on the above table shows that out of 85 respondents, nearly half of the respondents had an education on Higher Education that as many as 25 respondents (29.4%).

Table 3.2 Characteristics of Respondents by Education husband

characteristics	N	f (%)

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Education husband		
SD	16	18.9
SMP	24	28.2
High School	15	17.6
PT	30	35.3
Total	85	100

Source: Primary Data of research in 2018

Based on the above table shows that out of 85 respondents, nearly half of the respondents had an education on Higher Education that as many as 30 respondents (35.3%).

table 4 Characteristics of Respondents Based Physical Activity

Table 4.1 Characteristics of Respondents Based Physical Activity Wife

characteristics	N	f (%)
Light	23	27.1
moderate	35	41.2
Weight	27	31.8
Total	85	100

Source: Primary Data of research in 2018

Based on the above table shows that out of 85 respondents, nearly half were active wife physical activity that is as much as 35 respondents (31.8%).

Table 4.2 Characteristics of Respondents by husband Physical Activity

characteristics	N	f (%)
Light	23	27.1
moderate	24	28.2
Weight	38	44.7
Total	85	100

Source: Primary Data of research in 2018

Based on the above table shows that out of 85 respondents, nearly half of the respondents have heavy activity as many as 38 respondents (44.7%).

Table 5 Characteristics of Respondents Based on Nutritional Status

Table 5.1 Characteristics of Respondents Based on Nutritional Status Wife

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characteristics	N	f (%)
Thin	13	15.3
Ideal	21	24.7
Fat	20	23.5
obesity	31	36.5
Total	85	100

Source: Primary Data of research in 2018

Based on the above table shows that out of 85 respondents, nearly half of the respondents to the nutritional status of obesity as many as 31 respondents (36.5%).

Table 5.2 Characteristics of Respondents Based on Nutritional Status husband

characteristics	N	f (%)
Thin	15	17.6
Ideal	24	28.2
Fat	26	30.6
obesity	20	23.5
Total	85	100

Source: Primary Data of research in 2018

Based on the above table shows that out of 85 respondents, nearly half the fat nutritional status that is as much as 26 respondents (30.6%).

Table 6 Characteristics of Respondents by Smoking

Table 6.1 Characteristics of Respondents by smoke Wife

characteristics	N	f (%)
Not a smoker	81	95.3
Light smokers	3	3.5
smokers Medium	1	1.2
Heavy smokers	0	0
Total	85	100

Source: Primary Data of research in 2018

Based on the above table shows that out of 85 respondents, almost all of the respondents nonsmokers as many as 81 respondents (95.3%).

Table 6.2 Characteristics of Respondents by smoke husband

characteristics	N	f (%)
Not a smoker	6	7.1

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Light smokers	10	11.8
smokers Medium	41	48.2
Heavy smokers	28	32.9
Total	85	100

Source: Primary Data of research in 2018

Based on the above table shows that out of 85 respondents, nearly half of the respondents were smokers as many as 41 respondents (48.2%).

Table 7 Characteristics of Respondents Based Diet

Table 7.1 Characteristics of Respondents by Eating Wife

characteristics	N	f (%)
Less	8	9.4
Enough	23	27.1
More	54	63.5
Total	85	100

Source: Primary Data of research in 2018

Based on the above table shows that out of 85 respondents, nearly all of the respondents have more diet as many as 54 respondents (63.5%).

Table 7.2 Characteristics of Respondents by Eating Wife

characteristics	N	f (%)
Less	16	18.8
Enough	23	27.1
More	46	54.1
Total	85	100

Source: Primary Data of research in 2018

Based on the above table shows that out of 85 respondents, the majority of respondents have more diet as many as 46 respondents (54.1%).

Table 8 Characteristics of Respondents by Genesis Infertile

Table 8.1 Characteristics of Respondents by Genesis infertile On Wife

characteristics	N	f (%)
Infertile	68	80.0
Fertil	17	20.0
Total	85	100

Source: Primary Data of research in 2018
Based on the above table shows that out of 85 respondents, nearly all of the respondents happen infertile as many as 68 respondents (80.0%).

Table 8.2 Characteristics of Respondents by Genesis infertile On Husband

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characteristics	N	f (%)
Infertile	4	4.7
Fertil	81	95.3
Total	85	100

Source: Primary Data of research in 2018

Based on the above table shows that out of 85 respondents, almost all of the husband is not infertile as many as 81 respondents (95.3%).

Table 9 Multivariate logistic analysis with Cox and Snell R Koefision, Negelkerke R Square (husband)

Model Summary

Step	-2 log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	23,527a	, 098	, 309

a. Estimation terminated at iteration number 7 Because the parameter estimates changed by less than .001.

The above table shows the coefficient of Cox and Snell R Square R 0.098 or 1% and the coefficient Nagelkerke R Square .309 or 30%. Nagelkerke coefficient R Square of 30% means that the independent variables (diet, nutritional status, smoking, activity) affect the dependent variable (incidence of infertility) in general by 30% while 70% influenced by other factors not included in the model testing.

Table 10 Multivariate logistic analysis with Cox and Snell R Koefision, Negelkerke R Square (Wife)

Model Summary

Step	-2 log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	81,081a	, 046	, 072

a. Estimation terminated at iteration number 20 Because the maximum iterations has been Reached. Final solution can not be found.

The above table shows the coefficient of Cox and Snell R Square R 0,046 or 5% and the coefficient R Square Nagelkerke 0,072 or 7%. Nagelkerke coefficient R Square of 7% means the independent variables (diet, nutritional status, smoking, activity) affect the dependent variable (incidence of infertility) is generally equal to 7% was 93% influenced by other factors not included in the model testing.

DISCUSSION

A. Effect of Physical Activity Against Genesis Infetilitas in hospitals dr.H.Slamet Martodirdjo Pamekasan

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1. Effect of Physical Activity Against Wife in Hospital dr.H.Slamet Genesis Infetilitas Martodirdjo Pamekasan

Based on the results that his wife of 85 there were 29 wives (34.1%) who are experiencing infertility activities and results of logistic regression obtained 0.484 P value is greater than the value of α = (0.05), so there is no effect of physical activity wife with the incidence of infertility.

The results are consistent with results of previous studies conducted by Ayu Kusuma Puspasari Arifin (2016) indicates that there is a positive effect of a weak but statistically insignificant physical activity with infertility in women. Results p Value 0.565 and OR = 1.25).

Based on the study of physical activity is highly influenced the incidence of infertility, but may be as long as the activity is still done relaxed and not to experience the mind / stress not so influential on a woman's fertility. Because stress can alter the maturation of the egg in a woman. If it is associated with the activities undertaken by the wife that is included in the medium category. Where activities such as walking, swimming or yoga can help in reducing the stress of whack. Moreover, it has other benefits reduce the amount of fat in the body. So the possibility is still fertile reproductive organs.

2. Effect of Physical Activity Against Genesis Infetil husband in hospital Pamekasan dr.H.Slamet Martodirdjo

Based on the results that there are 37 of 85 husband husband (43.5%) did not experience infertile husband on husbands who perform strenuous physical activity and the results of logistic regression obtained 0.628 P value is greater than the value of α = (0.05), so that there is no influence of physical activity with the incidence of infertile husband.

The results of this study are not consistent with the results of previous research studies according to Al-Haija Studies (2011) in Lebanon shows that exposure to the work environment is very harmful to the physical and chemical materials were associated with an increased risk of male infertility. Exposure to organic compounds while working to decrease the number of motile sperm, a number of compounds that are used industry that can cause adverse effects on the male reproductive system that is carbon disulfide affect semen quality. History of exposure to glycol ethers in the work environment can also reduce the quality of the cement. Similarly, workers in agriculture or pesticide factory which also negatively impacted as a result of exposure to Dibromochloropropane (DBCP) can cause testicular toxicity and reduce sperm production.

Based Fertility researchers is strongly influenced by reproductive hormones. The body is awake physical and psychological health will certainly result in better reproductive hormones. Hot workplace environment, for example, will affect the quality of sperm. Similarly, the seating position for too long. Men who work and sit in a room with high temperature, sperm quality will go down as described by dr. Febriansyah Darus, SpOG. This means, if the husband had to ride a motorcycle in a long time, efforts are made to maintain the health condition of the body by exercising regularly, eating foods that are nutritionally balanced, and maintain healthy lifestyles. 44.7% based research husband had a strenuous activities such as riding a motorcycle too long, and more activities outside the building. At most 36.5% because the husband works as a private where their work has not remained so all they do pekerjaa outdoors like riding a motorcycle too long, sometimes plowing, gardening, accepted a job / task of the messenger and the husband breaks even approximately 3-4 hour.

B. Influence of Nutrition Status Of Genesis Infetil in hospitals dr.H.Slamet Martodirdjo Pamekasan

1. Influence of Nutrition Status Of Genesis Infetil Wife In Hospital dr.H.Slamet Martodirdjo wife in Pamekasan

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Based on the results that his wife of 85 there were 26 wives (30.6%) experienced an infertile wife who have obesity and the nutritional status of logistic regression test results obtained P value of 0.651 is greater than the value of α = (0.05), so there is no influence the nutritional status of the wife with the incidence of infertile wife. So that the nutritional status of obese has the opportunity to experience infertile 1,124 times compared to thin nutritional status, Ideal, and Grease.

The results of this study contrast with the results of research Grodstein (2009) study that examined the relationship between nutritional status (body mass index) and infertility comparison of BMI among 597 women diagnosed infertile due to ovulation disorders in 7 clinics infertile in the United States and Canada with 1,695 control primiparas who just gave birth. Obese women (BMI> 27) who has a relationship with the risk of ovulatory infertility has a value of 3.1 [95% confidence interval (CI) = 2.2-4.4], compared with women with a lower body weight (BMI 20-24.9). Found a small effect in women with a BMI of 25-26.9 or below 17 [relative risk (RR) = 1.2, 95% CI = 0.8-1.9; and RR = 1.6, 95% CI = 0.7-3.9, respectively).

From the research above, not all wives who experience the nutritional status of obese infertile. Because when obesity if it is offset by activity where the activity in question is do the movement of the body in this case the wife engage in moderate activity. This opinion is supported by statements made by a specialist sports medicine, who is also CEO of Indonesia Sports Medicine Center, Andi Kurniawan where To combat obesity, regular physical activity, such as brisk walking, running, and swimming, need to be reproduced, so that the reproductive organs of women do not experience infertility.

2. Influence of Nutrition Status Of Genesis Infetil Husband In Hospital dr.H.Slamet Martodirdjo husband in Pamekasan

Based on the results that there are 25 of 85 husband husband (29.4%) did not have infertile wives who have fat nutritional status and the results of logistic regression obtained P value 0.392 is greater than the value of α = (0.05), so there is no influence the nutritional status of the husband with the incidence of infertile husband.

The results of this study contrast with the Muslim Yusriani study (2016) showed that out of 70 respondents, there were 19 respondents (27.1%) who had malnutrition where there are 8 respondents (11.4%) who did not experience inferilitas and 11 respondents (15.7%) who experience infertility, and there are 23 respondents (32.9%) who had a better nutritional status where there are six respondents (8.6%) who did not experience infertility and 17 respondents (24.3%) who experienced infertility and 28 respondents (40.0%) who had normal nutritional status where there are 19 respondents (27.1%) who did not experience infertility and there are nine respondents (12.9%) who experience infertility. From the analysis using Pearson Chi-Square test, the obtained value of p = 0.011 (p <0.

Overweight experienced by husbands if they matched with a balanced activity will be less influence to occur infertility. Because obesity is an unhealthy lifestyle is not visible from any nutritional status, to be seen from other factors such as environmental conditions, stress levels, age and activities undertaken by the persons concerned. Many people assume that obese people certainly have a lifestyle that is not healthy, but it can not only see out of one factor alone should be clarified from the other factors. Because sometimes can be experienced by someone obesity factors of heredity. There are some people, even the people closest researchers that person fat, nutrient statusx nice but the frequency of the bit in their daily meal and they have not experienced infertility.

C. Against Smoking Infetil influence events in hospitals dr.H.Slamet Martodirdjo Pamekasan

1. Effect of Smoking Wife Infetil At Genesis Against Wife in Hospital dr.H.Slamet Martodirdjo Pamekasan

Based on the results that there are 64 of the 85 wives wife (75.3%) experienced an infertile wife who do not have the habit of smoking and logistic regression test results obtained P value of 0.999 is greater than the value of α = (0.05), so there is no wife's influence smoking habits to the incidence of infertility.

The results of this study contrast with research Argyo Dermatoto (2013) describes the link smoking with reproductive health problems for example infertility. Nicotine in cigarettes causes the maturation disorder ovum (egg). This is suspected to be the cause of the difficulty of pregnancy in women who smoke. In addition, nicotine also cause disturbances in the discharge process and slows the mobility tubal ovum, so that the risk of a woman smoker to experience ectopic pregnancy be around 2-4 times higher than a nonsmoker.

Most wives are infertile nonsmokers suffered as much as 64 (75.3%) of respondents. That's because someone nonsmokers from passive smoking status, while the husband as active smokers where passive smoking is more dangerous than active smoking. For that inhaling smoke is the husband, who inhaled toxic substances, namely nicotine wife, so that nonsmokers or may not be experiencing infertility. When a person smokes, the majority of the smoke does not enter the lungs of smokers. However, most of the smoke released into the air, so that the smoke can be inhaled by passive smokers. Although not directly smoking, passive smoking can contribute badly affected by smoke as well. The more often a person is exposed or exposed to smoke, the higher the risk of disruption of the reproductive organs is going through.

2. Effect of Smoking Husband Of Genesis Infetil In dr.H.Slamet Martodirdjo husband in hospital Pamekasan

Based on the results showed that there were 40 of 85 husband husband (47.1%) had moderate smokers and infertile as logistic regression results obtained P value of 0.028 is greater than the value of α = (0.05), so there is the effect of smoking status with the incident infertile husband.

This research is in line with research conducted Unitly (2014) found that the result of exposure to cigarette smoke can cause abnormalities in sperm quality is lowered sperm concentration and sperm viability and increase sperm abnormalities. Increases and decreases in line with the duration of exposure to cigarette smoke. The duration of exposure to cigarette smoke is given for 20 days, 40 days and 60 days when the results obtained are decreased sperm quality were significantly more in cigarette smoke exposure is longer that 60 days.

In the content of cigarette consists of a nicotine, ammonia, zhydrogen Cyanide, Nitrous oxide, formaldehyde, phenol, Acetol, hydrogen sulfide, pyridine, and Methyl Chloride. In the seminal fluid of smokers was found Kotin, degradation products nicotine, In much higher levels than men who do not smoke. As a result, the ability of sperm to swim smokers is reduced. The main cause is the free radicals formed in the body because of the cigarette smoke. These particles are aggressive and quick to react with other molecules in the body and damage them. Montenarh added: "The free radicals are formed in the protective fatty acids alter sperm membrane damaging impact. The particles also get into the cell nucleus that trigger changes in the DNA. Consequently, if successful fertilization, the fetus may develop a disability in the future, or do not occur." When free radicals attack the DNA in this case chromosome sperm cells, the protective layer will be broken and the chromosomes become brittle.Nicotine in cigarettes is a neurotoxin (a potent nerve poison) which is used to poison insects. At low temperatures, this material acts as a stimulant and it is one of the causes why smoke-loved and used as a character. Nicotine in cigarette smoke can stimulate the adrenal medulla to release catecholamines which can affect the central nervous system, so that the feedback mechanism between the hypothalamus, the anterior pituitary and testicular be disturbed. As a result, the synthesis of testosterone and spermatogenesis was also disturbed disturbed (Anita, 2004). Carbon monoxide. Material carcinogens such as tar from cigarette smoke affects and can damage DNA (Deoxiribo Nucleat Acid) spermatozoa as well as lower levels of testosterone and increases apoptosis, especially at the stage of spermatogonia (Reval et al, 2001). Carbon monoxide is a poisonous gas that is colorless. Abortion in cigarette smoke 2-6%. Carbon monoxide in the lungs have binding force (afnitas) with hemoglobin (Hb) approximately 200 times stronger than the holding capacity of oxygen

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(02) with hemoglobin (Hb). In the half-life of 4-7 hours as much as 10% of Hb can be filled with carbon monoxide (CO) in the form of COHb (carboly hemoglobin), and as a result of red blood cells to be starved of oxygen that eventually the body's cells will be starved of oxygen. Reduction of oxygen in the long term will cause the blood vessels to be disrupted because menyampit and harden. This will result in cell death due to lack of oxygen (Sukendro, 2007). Carbon monoxide in the lungs have binding force (afnitas) with hemoglobin (Hb) approximately 200 times stronger than the holding capacity of oxygen (02) with hemoglobin (Hb). In the half-life of 4-7 hours as much as 10% of Hb can be filled with carbon monoxide (CO) in the form of COHb (carboly hemoglobin), and as a result of red blood cells to be starved of oxygen that eventually the body's cells will be starved of oxygen. Reduction of oxygen in the long term will cause the blood vessels to be disrupted because menyampit and harden. This will result in cell death due to lack of oxygen (Sukendro, 2007). Carbon monoxide in the lungs have binding force (afnitas) with hemoglobin (Hb) approximately 200 times stronger than the holding capacity of oxygen (02) with hemoglobin (Hb). In the half-life of 4-7 hours as much as 10% of Hb can be filled with carbon monoxide (CO) in the form of COHb (carboly hemoglobin), and as a result of red blood cells to be starved of oxygen that eventually the body's cells will be starved of oxygen. Reduction of oxygen in the long term will cause the blood vessels to be disrupted because menyampit and harden. This will result in cell death due to lack of oxygen (Sukendro, 2007). In the half-life of 4-7 hours as much as 10% of Hb can be filled with carbon monoxide (CO) in the form of COHb (carboly hemoglobin), and as a result of red blood cells to be starved of oxygen that eventually the body's cells will be starved of oxygen. Reduction of oxygen in the long term will cause the blood vessels to be disrupted because menyampit and harden. This will result in cell death due to lack of oxygen (Sukendro, 2007). In the half-life of 4-7 hours as much as 10% of Hb can be filled with carbon monoxide (CO) in the form of COHb (carboly hemoglobin), and as a result of red blood cells to be starved of oxygen that eventually the body's cells will be starved of oxygen. Reduction of oxygen in the long term will cause the blood vessels to be disrupted because menyampit and harden. This will result in cell death due to lack of oxygen (Sukendro, 2007).

In cigarette smoke there are chemicals that alter DNA, and is unable to fertilize an egg. In addition, the sperm is also changing the shape and speed so it can not reach the egg and fertilization does not occur. This is the cause of fertility problems among smokers.

In line with the research Jumiati (2017) Statistical test results obtained value of P Value 0.044 means there is a significant relationship between smoking and the incidence of infertility with OR = 5.630.

In accordance with the results of research and corresponding theory, researchers assume that the husband with moderate smokers where menghabiskn 10-20 cigarettes a day course can impair fertility of male reproductive organs. Because cigarette smoke in the womb can damage sperm, such as decreased sperm count, reduced sperm motility and poor sperm morphology. Perhaps smoking is not the only factor that causes infertility in a man. But at least, to stop smoking can increase the chance of pregnancy or fertility treatment that is being executed. Because after all, prevention is better than cure. Additionally, smokers are not only an effect on male fertility, but also will affect the health of couples and people nearby.

D. Effect of Diet Against Genesis Infetil in hospitals dr.H.Slamet Martodirdjo Pamekasan

1. Dietary Impacts Of Genesis Infetil Wife In Hospital dr.H.Slamet Martodirdjo wife in Pamekasan

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Based on the results that his wife of 85 there were 44 (51.8%) experienced an infertile wife by eating more and logistic regression test results obtained P value of 0.306 is greater than the value of α = (0.05), so there is no effect of diet wife with the incidence of infertile wives, so wives with better nutritional status have the opportunity to experience infertile 1.512 times compared with the wife of malnutrition and nutritional status enough.

This study is in line with research conducted Dwi Ayu (2017) with cross-sectional design, the study sample was 67 respondents. The results using path analysis concluded that there was no effect of diet and nutritional status of the menstrual regularity that causes infertility, it is proved that the nutritional status does not directly affect the diet. It remains to be seen how diet and activities undertaken by the respondent.

Based on the theory Lecy Windham (2014) If you want to increase fertility, you should consider to change various aspects of your lifestyle, such as quitting smoking, stop drinking alcohol, and apply a good diet. Men who want to have a more fertile sperm and women who are trying to conceive may be able to improve their fertility by adjusting the diet. However, dietary adjustments must also be balanced with fertility treatments to improve overall fertility. The pattern of excessive eating and a healthy lifestyle can reduce the risk of irregular ovulation in women and increase the chances of getting pregnant.

Meanwhile, according to the theory Masitoh (2013) Unhealthy eating patterns can lead to involvement of the disease. For examplefast food that can increase the risk of obesity disease. This is due to the fast food made from unhealthy foods, such as MSG, and calories are quite high. Other dangerous risk that may occur as a result of too frequently eat fast food, especially for pregnant women is difficult. A study conducted in Australia foundfactthat women eat fast food too much can increase the risk of infertility or sterility and infertility as much as two-fold. Risksterilitywould increase if women do not eat enough fruit. Earlier research examines the relationship between diet and infertility. But then, the study continued by defining a relationship between infertility with tertetu foods that have a risk of causing infertility.

From research on the causes of fertility indeed be due to biological abnormalities (organic and dysfunctional) or due to psychological disorders such as stress and emotional state or biological and psychological disorders. Eating patterns more experienced wife does not become a decisive factor occurrence of infertility but also to be seen from the physical activity he does, because if someone has a pattern of eating less but has a regular activity in their daily body will be less intake so that it will interfere with the reproductive organs and reduced egg production.

2. Dietary Impacts Infetil Genesis Against Husband In Hospital dr.H.Slamet Martodirdjo husband in Pamekasan

Based on the results that there are 46 of 85 husband husband (54.1%) were infertile by eating more and logistic regression test results obtained P value of 0.138 is greater than the value of α = (0.05), so there is no effect of diet husband with the incidence of infertility.

Research This is in line with research conducted by Amanda Davianti (2013) that the results of the analysis of the relationship between body mass index, diet and energy intake and makronutien obtained 0.516 p value greater than 0.05 so it was concluded that there was no significant relationship between BMI / U, main meals and intake frequency with the menstrual cycle. Where the menstrual cycle is closely related to fertility couples.

According to researchers better diet can not be assumed to be directly bound to happen infertile, but also in terms of the activities carried out by husbands, 44.7% based research husband strenuous, so dietary intake is more reasonable that, when viewed from cross-tabulation husband who have heavy activity and eating patterns over most do not experience infertility. Because if the husband has eating more but doing the activity or slight body movements then diet and activity are not balanced automatically the excess fat in the body will be buried, so it will affect the production of sperm and sperm motility.

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E. Effect of Physical Activity. Nutritional Status, Smoking and Eating Against Genesis Infertile

1. Effect of Physical Activity. Nutritional Status, Smoking and Eating Against Genesis infertile On Wife

Based on the above table Multivariate logistic regression analysis to simultaneously show significant results 0,000. It can be concluded that all the independent variables (diet, nutritional status, smoking, activity) jointly affect the dependent variable (incidence of infertile) wife.

While the coefficient bedasrkan Cox and Snell R Square R 0,046 or 5% and the coefficient R Square Nagelkerke 0,072 or 7%. Nagelkerke coefficient R Square of 7% means the independent variables (diet, nutritional status, smoking, activity) affect the dependent variable (incidence of infertility) is generally equal to 7% was 93% influenced by other factors not included in the model penggujian.

According to investigators if a troubled wife of four variables are then most likely the occurrence of infertility. But the addition of the causes of the above required laboratory tests to check the health and fertility of reproductive organs such as is there ovulation disorders, hormonal disorders, ovarian disorders and disorders other reproductive organs because of the statistical test results of the four variables affect only 7% and 93% influenced by other factors. Because according to a study more smokers husband whose wife suffered due infertile because of exposure to cigarette smoke is the smoke that is inhaled by the exposure to someone who is not a smoker (passive smoking). Cigarette smoke is more dangerous to passive smokers than current smokers. Exposure to cigarette smoke is inhaled while in the house came from the husband's status as active smokers. Cigarette smoke exhaled by smokers and inhaled by passive smokers, contains five times more carbon monoxide, four times as much tar and nicotine. Women who are exposed to cigarette smoke are more prone to disorders in pregnancy because of the chemicals in secondhand smoke is higher than current smokers.

Smoking indoors will increase the concentration of smoke particles some of which are toxic (poison). According to the study cigarette smoke can remain long in a room, which contained toxins from cigarette smoke attached to clothes, left behind in the room, doors and furniture around it for weeks and months after being used for smoking. By the time the doors and windows open or a fan is turned on, the toxin will be back into the surrounding air. This condition causes a woman with a husband smoker or live in a neighborhood where there are many smokers to secondhand smoke. The presence of smokers cause particulates repirable be 3 to 12 times higher indoors than outdoors.Quoted from *Daily Mail*Women who lived with a smoker for 10 years or more, or women living with a spouse who smoked for 20 years or more, and women who are working with a smoker for 10 years or more it turns out the possibility of having infertility problems is 18 percent higher than women never become passive smokers. Asap cigarettes can affect the production of hormones associated with fertility cycle. Toxins that can damage cells and damage the embryo eggs before implanted on the uterine wall. The poison was also able to limit the process of preparing the uterus for pregnancy, cigarette toxins appears to accelerate the onset of natural menopause by reducing circulating estrogen hormones so as to conceive is very small.For women who become pasifpun smokers can get adverse impact in terms of fertility. For example, the egg in a woman's body could be difficult to move from the fallopian tube to the uterus because of the content of toxic smoke hampered. Because there is no egg is fertilized by sperm, the pregnancy would be difficult to obtain.

2. Effect of Physical Activity. Nutritional Status, Smoking and Eating Against Genesis infertile On Husband

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Based on the above table Multivariate logistic regression analysis to simultaneously show significant results 0.049. It can be concluded that all the independent variables (diet, nutritional status, smoking, activity) jointly affect the dependent variable (incidence of infertile) on husband.

While based on the coefficient of Cox and Snell R Square R 0.098 or 1% and the coefficient Nagelkerke R Square .309 or 30%. Nagelkerke coefficient R Square of 30% means that the independent variables (diet, nutritional status, smoking, activity) affect the dependent variable (incidence of infertility) in general by 30% while 70% influenced by other factors not included in the model penggujian.

Based on the research will be infertile if the husband of Of the four variables are not necessarily directly affect the incidence of infertility. Because of the statistical test of the four variables affect only 30% and 70% influenced by other factors. Therefore it can be carried out laboratory tests to check the health and fertility of reproductive organs in such husband is there Impaired spermatogenesis, sperm abnormalities, abnormalities of ejaculation and Infection At genitalia tract. Smoking is highly influential factor in the incidence of infertility. Because content in cigarette consists of a nicotine, ammonia, zhydrogen Cyanide, Nitrous oxide, formaldehyde, phenol, Acetol, hydrogen sulfide, pyridine, and Methyl Chloride.In the seminal fluid of smokers was found Kotin, degradation products nicotine, In much higher levels than men who do not smoke. As a result, the ability of sperm to swim smokers is reduced. The main cause is the free radicals formed in the body because of the cigarette smoke. These particles are aggressive and quick to react with other molecules in the body and merusaknya.Montenarh added: "The free radicals are formed in the protective fatty acids alter sperm membrane damaging impact. The particles also get into the cell nucleus that trigger changes in the DNA. Consequently, if fertilization success, later the fetus may have a disability, or no fertilization. " When free radicals attack the DNA in this case chromosome sperm cells, the protective layer will be broken and the chromosomes become brittle.Nicotine in cigarettes is a neurotoxin (a potent nerve poison) which is used to poison insects. At low temperatures, this material acts as a stimulant and it is one of the causes why smoke-loved and used as a character.

CONCLUSION

Results of physical activity with innfertilitas events, namely:

a. The results showed that out of 85 respondents, has a frequency at most that 35 wives (41.2%) had moderate activity and logistic regression test results obtained parity p value: 0.484. at α: 0.05.
b. The results showed that out of 85 respondents, has a frequency at most that 38 husbands (44.7%) had the strenuous activity and logistic regression test results obtained parity p value: 0.628. at α: 0.05.

1. Results nutritional status and the incidence innfertilitas namely:

a. The results showed that out of 85 respondents, has a frequency at most that 31 wives (36.5%) had the nutritional status of obesity and logistic regression test results obtained parity p value: 0.651. at α: 0.05.

b. The results showed that out of 85 respondents, has a frequency at most with 26 husbands (44.7%) had a fat nutritional status and the results of logistic regression test parity obtained p value: 0,392. at α: 0.05.

2. Results innfertilitas smoke with events namely:

a. The results showed that out of 85 respondents, has a frequency at most that 81 wives (95.3%) non-smokers and logistic regression test results obtained parity p value: 0.999. at α: 0.05.

b. The results showed that out of 85 respondents, has a frequency at most at 41 husbands (48.2%) is a heavy smoker and logistic regression test results obtained parity p value: 0.028. at α: 0.05.

3. Results innfertilitas diet with events namely:

a. The results showed that out of 85 respondents, has a frequency at most, 54 wives (63.5%) had a diet more and logistic regression test results obtained parity p value 0.306. at α: 0.05.

b. The results showed that out of 85 respondents, has a frequency at most at 46 husbands (54.1%) had a diet more and logistic regression test results obtained parity p value: 0.306. at α: 0.05.

4. Test Results Statistics dominant factor affecting the incidence of infertility are:

a. The results showed that out of 85 respondents indicated all independent variables (physical activity, nutrition, smoking and diet together influence the independent variable on the wife and logistic regression test results obtained parity p value: 0,000. At α: 0.05 in public of 7% is influenced by other factors not included in the model testing.

b. The results showed that out of 85 respondents indicated all independent variables (physical activity, nutrition, smoking and diet together influence the independent variable on the husband and logistic regression test results obtained parity p value: 0,000. At α: 0.05 in general by 30% influenced by other factors not included in the model testing.

SUGGESTION

1. For Educational Institutions

Is expected to print health professionals (midwives) and can conduct professional training on infertility examination so that after graduating from educational institutions of medical personnel (nurses) have specialized skills in dealing with infertility patients.

2. For dr. H. Slamet Martodirdjo Pamekasan

Agencies expected more intensive health services in providing health education, especially about events in the infertile couples of childbearing age so that the detection of the occurrence of infertility can be further improved to prevent infertility.

3. For Couple

Expected to perform infertility prevention to stop smoking, as smokers and passive smokers may harm fertility reproductive organs so difficult for married couples to have children.

4. For Further Research

It is expected that further research to develop this research to examine the more dominant factors affecting the occurrence of infertility. Factors that have not been examined is an STD, drug users, Polycystic ovary syndrome, histurisme and Menstrual Cycle (oligomenorrhea, Amenorhe, Cycle Anovulator)

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