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RELATIONSHIP BETWEEN THE LEVEL OF EDUCATION AND KNOWLEDGE WITH THE USE OF INTRAUTERINE DEVICE CONTRACEPTIVES

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Abstract

Background: The high birth rate is the main reason for the need for family planning services. Data at the Semen Health Center shows low interest in IUD compared to other contraceptives, this can be caused by several existing factors. This study aims to determine the relationship between the level of education and knowledge of acceptors with the use of IUD (Intrauterine Device) contraceptives at the UPTD Semen Health Center, Kediri Regency East Java Indonesia. **Method:** This study is a quantitative study with a Cross-Sectional research plan. The sampling technique used in this study was Purposive Sampling with a sample size of 100 KB acceptor respondents in Semen District, Kediri Regency. This study was conducted in April 2024. Data collection used a questionnaire instrument. Data were analyzed using the Spearman's rho test. **Result:** Secondary education level (SLTA/SMK) (51%) and basic education level (SD-SMP) (43%). High knowledge, namely 83 respondents (83%). Half of the birth control acceptors are non-IUD users (74%). The results of the analysis of the Spearman's Rho test at the education level with the use of IUD contraceptives are known that the results of sig. (2-tailed) of .140, and knowledge with the use of IUD contraceptives is known as the results of sig. (2-tailed) of .038. **Conclusion :** There was no relationship between education level and IUD contraceptive use and there was a significant relationship between knowledge and use of birth control. Acceptors need to be proactive in seeking information about the use of IUD contraceptives through various sources such as print media, electronic media, the internet, and consultation with health professionals. This can help in choosing the right method or contraceptive for them to use.

keyword : Education Level, Knowledge, Use of IUD Contraception.

INTRODUCTION

Indonesia is a country with a population that has experienced a relatively high growth rate in the fourth position in the world. The Ministry of Home Affairs through the Directorate General of Dukcapil released Population Data in 2021, recording that the population of Indonesia is 273,879,750 people. The database also recorded the reporting of births of 691,259 people (Kemendagri, 2022).

The high birth rate is also the main reason for the need for family planning services. Long-term contraceptive methods (LMPs) have proven to be the most effective in reducing pregnancy rates, but until now LMPs have not been the choice

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of the majority of fertile couples in Indonesia. The number of active LMP participants according to the BKKBN in 2021 was 10,028,915 (25.29%) participants and in 2022 it was 10,028,146 (25.28%) participants. It can be said that the achievement of active LMP participants in Indonesia has decreased compared to 2020. There are several types of permanent birth control that have been scientifically proven to be the most effective methods for spacing pregnancies, such as IUDs, implants, and sterilization in the form of vasectomy and tubectomy (Dinengsih, 2023).

Based on data from the East Java Province BKKBN, the number of acceptors in the local area reached 81,637 people in the first quarter of 2023. Acceptors are KB participants and Fertile Age Couples (PUS) who use one of the contraceptive devices or drugs. The number of PUS in East Java is 5,967,082, while IUD KB users are only 5.69%. Data on Fertile Age Couples at the Semen Health Center UPTD, Kediri Regency in 2022 was 8,995 people and had 5,996 active KB acceptors, of which the number of IUD KB users was only 708 people or only 11.80% of active acceptors, where IUD KB users can still be said to be low compared to other contraceptives (Diyanah, 2023).

Low use of IUDs can lead to increased birth rates. One reason mothers are less interested in using IUDs is the frequent failure of other contraceptive methods. In fact, IUDs are effective contraceptives with a low failure rate, only 1-5 pregnancies per 100 women.

The low interest of IUD KB acceptors compared to other contraceptives in the Semen Health Center area of Kediri Regency is caused by many factors such as the level of education and lack of knowledge of participants about IUD contraception. In addition, environmental factors such as the influence of people who are considered experienced in KB and the lack of support from husbands in using IUDs also play a role. On the other hand, mothers who have a high level of education and sufficient knowledge about IUDs will be more aware and tend to use this contraceptive, so that the use of IUDs will be more in demand (Diyanah, 2023).

Activities that can support the implementation of the Family Planning Program, especially in increasing the interest of IUD KB users in Kediri Regency, include the provision of KB services and contraceptives for poor families,

Information and Education Communication (KIE) services with indicators, family planning guidance, KB Safari, procurement of Family Planning facilities and infrastructure, and Family Planning Operational Assistance (BOKB) (DP2KBP3A,2020).

The program is expected to reduce maternal and infant mortality rates caused by pregnancy at too young or too old ages. In addition, it aims to control the population and balance needs with the population in Indonesia. This study looked at the relationship between education levels and knowledge with the use of IUD contraception at the Semen Health Center UPTD, Kediri Regency.

METHOD

This study uses a quantitative analytical design with a cross-sectional approach. The population of this study was all KB acceptors in Semen District, Kediri Regency, totaling 5996 people. The sample in this study was part of KB acceptors in Semen District, Kediri Regency, totaling 100 people. The sampling technique in this study was purposive sampling. The sample criteria in this study are fertile couples who are domiciled or living in Semen District, Kediri Regency, fertile couples with active KB acceptor status and fertile couples who are willing to be respondents and become research samples by signing an informed consent. The location of this study was in the Semen Health Center UPTD area, Kediri Regency. The time of the study was conducted on April 3 - April 18, 2024. The independent variables were the level of education and knowledge while the dependent variable was the use of IUD contraceptives. Data collection used a questionnaire instrument. General respondent data were analyzed by percentage. Respondent-specific data were analyzed using the Spearman's rho test to see the relationship between education level and knowledge with the use of IUD contraceptives. It is said that there is a significant difference and there is a relationship if the level of significance (p) <0.05.

RESULT AND DISCUSSION

Distribution of characteristics, univariate and bivariate analysis of respondents based on the results of the questionnaire in terms of education level

and knowledge with the use of IUD contraceptives can be seen in the following table:

Respondent Characteristics

Table 1. Respondent Characteristics Data

Variable	Frequency (n)	Percentage (%)
Age		
10-19 Years	1	1%
20-44 Years	91	91%
45-59 Years	8	8%
Work		
Civil Servants	1	1%
Entrepreneur	3	3%
private sector employee	9	9%
Labor	3	3%
Housewife	84	84%
Parity		
1-3 child	94	94%
> 3 child	6	6%
Height		
<150 – 154 cm	47	47%
155 – 159 cm	41	41%
160 – 164 cm	8	8%
> 164	4	4%
Weight		
35 – 44	9	9%
45 – 54	29	29%
55 – 64	33	33%
> 64	29	29%
Complaint		
With	75	75%
Without	25	25%
Years of Education		
> 12 Years	6	6%
12 Years	49	49%
6 – 9 Years	45	45%
Graduation Year		
> 2014	28	28%
2005 - 2014	52	52%
1995 - 2004	20	20%
Duration of Use of Contraceptives		
1 – 5 years	78	78%
> 5 years	22	22%

Based on the analysis results in the table above, it can be seen that almost all respondents are aged 20-44 years with a total of 91 respondents (91%). Furthermore, respondents in this study were almost all housewives with a total of 84 respondents (84%). Respondents with a parity of 1-3 children were 94 people (94%). Almost half of the respondents in this study were respondents with a height

of <150 - 154 cm, namely 47 respondents (47%). In this study, almost half of the respondents weighed 55-64 kg, namely 33 respondents (33%). Then, half of the respondents in this study did not have complaints when using contraceptives, namely 75 respondents (75%). Almost half of the respondents with a length of education of 12 years, namely 49 respondents (49%). Half of the respondents with the last year of education in 2005-2014, namely 52 respondents (52%). And almost all of the respondents with a length of use of contraceptives for 1-5 years, namely 78 respondents (78%).

Univariate Analysis

Table 2. Frequency Distribution of Univariate Analysis Results

Variable	Frequency (n)	Persentage (%)
Education		
Senior High School	6	6%
Junior high school	51	51%
Basic secondary school	43	43%
Knowledge		
High	83	83%
Enough	16	16%
Less	1	1%
Use of Contraception		
Contraceptive users	26	26%
Not a contraceptive user	74	74%

Based on the analysis results in the table above, it can be seen that half of the respondents have a secondary education background (Senior High School/Vocational High School) which is 51 respondents (51%) and almost half of the respondents have a basic education background (Elementary School-Junior High School) as many as 43 respondents (43%). From the analysis results it is also known that almost all respondents have high knowledge, namely 83 respondents (83%). And half of the respondents are not IUD users, namely 74 respondents (74%).

The results of the study showed that half of the respondents had a secondary education background (Senior High School/Vocational High School) as many as 51 respondents (51%) and almost half of the respondents had a basic education background (Elementary-Junior High School) as many as 43 respondents (43%). Research by Nurliawati & Komariah (2020) stated that individuals with higher education have broader thinking and are more receptive to information about

contraception (Nurliawati & Komariah, 2020) . This is in line with Rizali's research (2016) which shows that the level of education of fertile couples influences a person's views, attitudes, and decision-making and actions. According to Rahman (2022), education is not only an effort to provide information and skills, but also an effort to fulfill the desires, needs, and abilities of individuals so that they can achieve a satisfying lifestyle personally and socially. Education is a learning process that helps individuals become more understanding, mature, and critical in thinking (Rahman et al, 2022).

Education is an interesting endeavor in humans, which provides programmed learning experiences in both informal, formal, and non-formal forms, both in school and outside of school, and lasts throughout life. The higher a person's level of education, the easier it is for them to receive information and have broader knowledge. Conversely, low education will hinder the development of attitudes in receiving information and knowledge (Lailaturohmah et al, 2023).

The educational background of the respondents, most of whom are middle and elementary level, can be caused by the conditions of the surrounding community, where researchers took respondents who lived in rural areas and were involved in posyandu activities. Most respondents obtained information about contraceptives through experiences and stories from neighbors or family. The level of education also affects the knowledge and attitudes of respondents in receiving information about the right contraceptives.

The results of the study of 100 respondents showed that almost all respondents had high knowledge, namely 83 respondents (83%). According to Notoatmodjo (2014), knowledge is related to a person's analytical ability, where good analytical skills affect the level of cognitive domains that are important for the formation of knowledge and behavior. Research by Cahyaningrum Frida & Sri Mularsih (2019) stated that the level of intelligence of respondents varied, and one of the factors that influenced the mother's knowledge was the information received. Good knowledge about something is not formed in a short time, but through a certain process (Cahyaningrum & Mularsih, 2019) . Sawiti (2020) explains that knowledge must go through six stages, namely knowing, understanding,

application, analysis, synthesis, and evaluation, all of which play a role in determining a person's level of knowledge (Sawiti, 2020).

Knowledge includes information received by acceptors about the IUD KB program and how to get its services. Increased knowledge does not only come from formal education but can also be obtained through various means, either through one's own initiative or encouragement from others. A high level of knowledge in a person helps overcome various problems and make the right decisions for themselves. The environment also affects the process of acquiring a person's knowledge because of the reciprocal interaction that is responded to as knowledge by each individual. Good knowledge can influence a person's views and attitudes or actions.

The results of the study showed that half of the respondents were not IUD users, namely 74 respondents (74%). According to Fiantra (2013) IUD is a very effective contraceptive with a success rate of 99.2-99.6% in the first year. Unlike hormonal contraceptive methods, IUDs immediately prevent pregnancy after being installed, and users do not need to remember to take medication every day (as with birth control pills) or visit the clinic on schedule (as with birth control injections).

According to the theory of support in using IUD contraception, it is divided into 4 supports, namely informational support, instrumental support, emotional support, and appreciation support. Factors that are considered by someone in choosing an IUD contraceptive include individual factors, education level factors, knowledge factors, health factors, contraceptive method factors such as cost, and side effects (Irasanti, 2022).

Respondents in this study were mostly aged 20-44 years. Age is related to the reproductive period or fertile period that affects sexual patterns. Younger respondents generally feel afraid to use IUDs because they tend to feel ashamed of things that are considered taboo. They are reluctant to use intrauterine contraceptives because IUD installation requires medical procedures performed in health facilities by doctors, which are often considered invasive or scary. Dependence on medical personnel for IUD installation and removal can also add to respondents' discomfort and concerns.

Bivariat Analysis

Table 3. Results of Spearman's Rho Level of Education And Knowledge With The Use Of Intrauterine Device Contraceptives.

Correlations	Use of Contraception	
Education	Sig. (2-tailed)	.140
Knowledge	Sig. (2-tailed)	.038

Based on the test results in the table above, it is known that the sig. (2-tailed) result is .140. Because the sig. (2-tailed) value is > 0.05, it means that it can be said that there is no significant relationship between education and the use of IUD contraception.

The results of the analysis show that almost half of the respondents have a secondary education background (42%) and elementary (28%) are not IUD users. Based on the results of statistical tests using Spearman's rho analysis, it is known that the sig. (2-tailed) result is .140, because the sig. (2-tailed) value is > 0.05. So it can be said that there is no significant relationship between education and the use of birth control. Grestasari (2014) stated that education is not the main factor in changing a person's behavior and it needs to be emphasized that individuals with low education do not always have low knowledge. Knowledge or information can be obtained not only formally but also informally (Grestasari, 2014).

The education process lasts a lifetime, where lifelong education is a system of educational concepts that explain the entirety of a person's learning and teaching activities. Before a person enters formal education at school, a person will first receive informal education in the family and if able, continue to college (Jumiati Ani et al, 2023).

The results of the study showed that the use of IUD as a contraceptive is still low, especially among respondents with secondary and primary education backgrounds. This is due to the lack of information about IUD, low awareness of

acceptors regarding their health, and lack of independence to come to health services in using effective contraceptives such as IUD.

Based on the test results in the table above, it is known that the sig. (2-tailed) result is .038. Because the sig. (2-tailed) value < 0.05, it means that it can be said that there is a significant relationship between knowledge and the use of IUD contraception.

The results of the analysis showed that half of the responses with high knowledge (58%) were not IUD users. Based on the results of statistical tests using Spearna's rho analysis, it is known that the sig. (2-tailed) result is .038, because the sig. (2-tailed) value <0.05. This means that there is a significant relationship between knowledge and the use of contraception. Pratiwi (2019) stated that the factors that influence family planning acceptors in choosing contraception include age, education, knowledge, and husband's support. This study is in line with the results of Huda et al. (2016) who found a significant relationship between knowledge and use of contraception (p = 0.000), as well as Rusiana et al. (2017) who also found a significant relationship between knowledge of contraception (p = 0.000).

Knowledge about IUD contraception is obtained through information sources such as print media, electronic media, the internet, and health workers. In understanding the concept of family planning, it is important to know how to use contraception. Factors to consider when using contraception include efficiency, ease of use, safety, possibility of fertility recovery, and availability of types of contraception. It is hoped that the higher the knowledge about contraception in fertile couples, the more effective they will be in determining which contraception to use.

The reason respondents did not choose to use IUD was because of their high knowledge about birth control. Respondents realized that they were not suitable or had obstacles in using IUD, so they chose not to use it. However, based on the researcher's field study, almost all respondents who used IUD stated that they did not have any special considerations in choosing a contraceptive method. They just followed friends or relatives who used the same contraceptive method and felt interested.

CONCLUSION

Based on the results of the study of the Relationship between Education Level and Knowledge with the Use of Intrauterine Contraceptive Devices (IUD), it is known that the results of education sig. (2-tailed) are .140, and knowledge with the use of IUD is known that the results of sig. (2-tailed) are 0.038. Conclusion: There is no relationship between education level and the use of IUD and there is a significant relationship between knowledge and the use of contraceptives. Acceptors need to be proactive in seeking information about the use of IUD through various sources such as print media, electronic media, the internet, and consultation with health workers. This can help in choosing the right method or contraceptive to use.

DECLARATION

Conflict of Interest

There Is No Conflict In This Study.

Authors' Contribution

The author contributed to the preparation of the article starting from research design, data collection, data processing, and analysis.

Ethical Approval

This research has received an ethical clearance letter from the Bhakti Wiyata Kediri Health Sciences Institute, which ensures that all protocols comply with ethical guidelines (369/FIK/EP/III/2024).

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Data Availability

The data supporting the findings of this study are available upon reasonable request from the corresponding author, with restrictions due to participant confidentiality

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