KNOWLEDGE ABOUT NON-ADHERENCE TO CONTRACEPTIVE METHODS COULD IT DECREASE MATERNAL MORTALITY?

EL CONOCIMIENTO SOBRE LA NO ADHERENCIA DE MÉTODOS ANTICONCEPTIVOS ¿PODRÍA DISMINUIR LA MORTALIDAD MATERNA?

Gramajo-Cortez L. [1]

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ABSTRACT

Introduction: In Peru, 78.1% of women between the ages of 15 and 49 use a contraceptive method, which is diminished by various factors associated with non-adherence to the contraceptive method, thus producing unwanted pregnancies and the spread of sexually transmitted diseases. **Objective:** To determine the factors associated with non-adherence to contraceptive methods in women of childbearing age in Peru according to ENDES 2021. **Methods:** Observational, analytical and cross-sectional study. The information used is found in the ENDES 2021 public database. The population of this research is made up of Peruvian women between the ages of 15 and 49. Statistical analysis was performed with the statistical program SPSS version 26.0. The qualitative variables were represented in a univariate table with frequencies and coefficients of variation. The approved statistical significance value was p <0.05 with 95% confidence intervals. **Results:** 43.7% of women did not adhere to the contraceptive method. There was a significant association for the variables: area of rural residence (Rpa 1.05 IC 1 – 1.1), separated marital status (Rpa 1.1, IC 1 – 1.1), widow marital status (Rpa 1.3, IC 1.1 – 1.5), cohabiting marital status (Rpa 1.1, IC 1.1 – 1.2) , poor wealth index (Rpa 1.03, IC 0.9 – 1.0) **Conclusions:** The factors associated with non-adherence to contraceptive methods in women of childbearing age in Peru, which are significantly associated are: Rural area of residence, separate marital status, widow and cohabitant and have a poor wealth index.

Keywords: Contraceptive methods, Fertile woman, Adherence. (Source: MESH-NLM)

RESUMEN

Introducción: En el Perú el 78,1% de mujeres entre 15 a 49 años utilizan un método anticonceptivo, lo cual se ve mermado por diversos factores asociados a la no adherencia al método anticonceptivo, generando así embarazos no deseados y contagio de enfermedades de transmisión sexual. **Objetivo:** Determinar los factores asociados a la no adherencia de métodos anticonceptivos en mujeres en edad fértil en el Perú según la ENDES 2021. **Métodos:** Estudio de tipo observacional, analítico y transversal. La información utilizada se encuentra en la base de datos pública de la ENDES 2021. La población de esta investigación está constituida por mujeres peruanas de 15 a 49 años. El análisis estadístico se realizó con el programa estadístico SPSS versión 26,0. Las variables cualitativas fueron representadas en una tabla univariada con frecuencias y coeficientes de variación. El valor de significancia estadística aprobado fue de p <0,05 con intervalos de confianza al 95%. **Resultados:** El 43,7% de mujeres no tuvieron adherencia al método anticonceptivo. Hubo asociación significativa para las variables: área de residencia rural (Rpa 1,05, IC 1 – 1,1) , estado civil separada (Rpa 1,1, IC 1 – 1,1) , estado civil viuda (Rpa 1,3, IC 1,1 – 1.5), estado civil conviviente (Rpa 1,1, IC 1,1 – 1,2), índice de riqueza pobre(Rpa 1,03, IC 0,9 – 1,0). **Conclusiones:** Los factores asociados a la no adherencia de métodos anticonceptivos en mujeres de edad fértil en el Perú, los cuales se asocian de manera significativa son: El área de residencia rural, el estado civil separada, viuda y conviviente y poseer un índice de riqueza pobre.

Palabras clave: Métodos anticonceptivos, Mujer fértil, Adherencia. (Fuente: DeCS- BIREME)

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INTRODUCTION

Globally, about 830 women die every day worldwide due to complications related to pregnancy or childbirth. In 2015, it was estimated that 303,000 women died during pregnancy, childbirth and the postpartum period[1]. The vast majority of deaths occur in low-income countries such as Peru. In view of this alarming situation, MINSA indicates the importance of family planning to reduce maternal mortality by avoiding unwanted pregnancies and their complications. In addition, neonatal deaths and sexually transmitted diseases are avoided [2].

WHO in 2019 reported that there were 1.9 billion women of childbearing age in the world, of whom only 1112 million obtained family planning[3]. Due to the lack of adherence to the contraceptive method, multiple studies began to be conducted worldwide to explain the reasons for this situation. Among them, the study in Mexico by Sámano R, et al. [4] which conducted a study on adolescents in the second half of pregnancy and 4 months postpartum, since it is public knowledge that adolescence is a risk factor for obstetric complications; in which they were able to determine that being under 15 years of age, having a low level of education and educational backwardness are associated with a higher risk of non-adherence to the contraceptive method.

At the national level, in Peru, studies were also carried out, among which we can mention that of Gutiérrez C, et al.[5] where they were able to determine other factors at the national level such as the quality of user care, the distance from the health service to the home, religion and economic resources. According to the ENDES, a national database, reported that in 2021, 78.1% of women of childbearing age "use a contraceptive method". Among the reasons for non-adherence, the most important factor is the change to a more effective method, making the pill the most discontinued method [6].

As we have seen from what has already been described in each study, there are different results with respect to the factors associated with no adherence to contraceptive methods; therefore, this study seeks to determine the factors associated with no adherence to contraceptive methods in Peru.

METHODS

Study design

An observational, analytical and cross-sectional study was carried out. The information used was found in the public database of the ENDES 2021.

Population and simple

The population of this research is constituted by Peruvian women aged 15 to 49 years who were surveyed by the ENDES in the period 2020. The sampling frame is constituted of statistical and cartographic information from the National Population Census XII and Housing Census VII of 2017 (CPV 2017), and updated cartographic material.

Variables

The dependent variable was non-adherence to the contraceptive method (Question V359). The independent variables were: Area of residence (Question HV025), Educational level achieved (HV109), Pregnancy (V213), Language (S119), Region (REC 91), Wealth index (V190).

Data analysis

The database was downloaded from the INEI web page and the statistical analysis was performed with the SPSS version 26.0 statistical program. The qualitative variables were represented in a univariate table with frequencies and coefficients of variation. The statistical significance value approved was $p < 0.05$ with 95% confidence intervals.

Ethical Aspects

In order to collect the data, the ENDES team required the signature of an informed consent form by the participants, since it is impossible to identify the patient by means of the coded data, thus ensuring confidentiality. The data obtained will be used for academic purposes only. For the execution of the study, permissions were required from the Faculty of Medicine and the ethics committee of the Ricardo Palma University.

RESULTS

The univariate analysis (Table 1) showed a prevalence of 48.6% for women who did not adhere to the contraceptive method. In addition, most of the women belong to urban areas (83.8%), have a high school education (47.7%), are between 30 and 49 years old (53.2%), their marital status is that of cohabitant (35.6%), their dialect is Spanish (97.8%), and they have a high wealth index (42.5%).

Table 1. Univariate analysis of factors associated with non-adherence to contraceptive methods in women of childbearing age between 15 and 49 years in Peru according to the ENDES 2021.

Variables		Population size	Standard error	Coefficient of variation	% of n columns
Adherence	Yes	12734.465	268.090	0.021	51.4
	No	12045.628	211.154	0.018	48.6

Source: ENDES 2021

In the bivariate analysis Table 2 we observed that the variables marital status separated (Rpc 1.1, CI 1.1 - 1.2), marital status widowed (Rpc 1.2, CI 1.0 - 1.3), marital status cohabiting (Rpc 1.2, CI 1.2 - 1.3), marital status poor (Rpc 1.2, CI 1.2 - 1, 3) and wealth index(Rpc 1.0 , CI 1.00 - 1.07) poor are statistically significant with a p value < 0.05 and a crude RP Confidence Interval in all variables not exceeding unity. While the variables secondary education level (Rpc 0.7 , CI 0.7 - 0.8), primary education level (Rpc 0.8 , CI 0.8 - 0.8) , no education level(Rpc 0.8 , CI 0.6 - 0.9), age between 30 and 49 years (Rpc 0.9 , CI 0.9 - 0.9), marital status divorced (Rpc 0.6 , CI 0.4 - 0.8), marital status single (Rpc 0.7 , CI 0.6 -0.7), other dialect than Spanish (Rpc 0.8 , CI 0.7 - 0.9), average wealth index (Rpc 0.9 , CI 0.9 - 1.0) are statistically non-significant.

Table 2. Bivariate analysis of factors associated with non-adherence to contraceptive methods in women of childbearing age between 15 and 49 years in Peru according to the ENDES 2021.

Variables	Parameter	P Value	Crudo RP	95% confidence interval of crude Rp	
Area	Rural	0.060	1.037	0.998	1.100
	Urban		Referencia		
Educational level	Secondary	0.000	0.780	0.757	0.760
	Primary	0.000	0.849	0.812	0.781
	No education	0.014	0.816	0.694	0.884
	Higher education		Referencia		
Age	30 to 49 years old	0.000	0.938	0.912	0.726
	15 to 29 years old		Referencia		
Marital status	Separated	0.000	1.157	1.103	1.183
	Divorced	0.007	0.600	0.412	0.793
	Widowed	0.001	1.229	1.082	1.530
	Cohabiting	0.000	1.258	1.209	1.223
	Single	0.000	0.717	0.684	0.597
	Married		Referencia		
Dialect	Other language	0.004	0.837	0.742	
	Spanish		Referencia		0.924
	Medium	0.069	0.966	0.930	0.978
Wealth index	Poor	0.015	1.039	1.007	1.072
	Rich		Referencia		

Source: ENDES 2021

Table 3. Multivariate analysis of factors associated with non-adherence to contraceptive methods in women of fertile age between 15 and 49 years in Peru according to the ENDES 2021.

Variables	Parameter	P Value	Adjusted Rp	95% confidence interval of adjusted Rp	
Area of residence	Rural	0.023	1.053	1.007	1.100
	Urban		Referencia		
Educational level	Secondary	0.000	0.738	0.716	0.760
	Primary	0.000	0.744	0.709	0.781
	No education	0.001	0.748	0.633	0.884
Age	Higher education		Referencia		
	30 to 49 years old	0.000	0.704	0.683	0.726
	15 to 29 years old		Referencia		
Marital status	Separated	0.000	1.128	1.076	1.183
	Divorced	0.001	0.557	0.392	0.793
	Widowed	0.000	1.348	1.187	1.530
	Cohabiting	0.000	1.175	1.128	1.223
	Single	0.000	0.567	0.539	0.597
	Married		Referencia		
Dialect	Other language	0.001	0.820	0.729	0.924
	Spanish		Referencia		
	Medium	0.002	0.943	0.910	0.978
Wealth index	Poor	0.104	1.032	0.994	1.072
	Rich		Referencia		

Nota. Fuente: ENDES 2021

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DISCUSSION

We found that 43.7% of women did not adhere to the contraceptive method, similar to Barden, et al. [7] where they found a 34.7% abandonment of the contraceptive method, while Gutiérrez, et al. [8] in their study found a 60% abandonment rate, which may be due to the difference in the number of the study population, since Barden, et al.[7] used a population of 6927, while Gutiérrez, et al. [8] used a small population of 170 women.

In the study by Meléndez, et al. [9] found that women living in urban areas had 1.04 times the risk of nonadherence to contraceptive methods. Similarly, Silva K, et al.[10] found that women living in urban areas had 1.04 times the risk of non-adherence to their contraceptive method, and Mekonnen B[11] found that women living in rural areas had 1.36 times the risk of non-adherence to their contraceptive method. Such results are similar to ours where women living in a rural area of residence have 1.05 times higher risk of nonadherence to the contraceptive method.

the risk of nonadherence to the contraceptive method. This result is related to the study by Meléndez J [9] in which he found that women with cohabiting marital status have 1.06 times the risk of nonadherence to the contraceptive method. In our study, women with a widowed marital status have a 1.1 times higher risk of nonadherence to their contraceptive method. This data cannot be contrasted with the rest of the studies due to the lack of study by the same studies. Continuing with the next variable, cohabiting marital status in the study conducted by Silva K[10] women with cohabiting marital status have 1.08% higher risk of non-adherence to contraceptive method.

Another study by Barden-O'Fallon J [7] found that cohabiting marital status has 1.75 times the risk of non-adherence to the contraceptive method. These results are similar to ours, where women with a cohabiting marital status have a 1.1 times higher risk of nonadherence to the contraceptive method. In a different way, in the studies of Colca et al.[12] women

with a cohabiting marital status have a 42% protection against non-adherence to their contraceptive method and Mekonnen B (11) women with a cohabiting marital status have a 26% protection against non-adherence to their contraceptive method.

LIMITATIONS

Since we did not find any studies on women with a widowed marital status, we were unable to contrast this information with our results.

We were not able to study other variables of interest to us, such as the husband's decision and the wife's religion, because having such a small sample of these variables would reduce the sample size when performing the statistical analysis.

The study measures current nonadherence to a contraceptive method, but there is no information on previous nonadherence to a contraceptive method, so since this question does not exist in the ENDES, it is not possible to analyze this data.

The ENDES has not explored all the existing dialects in Peru and by not doing so we cannot analyze whether this age group of women, because of their dialect, have a higher risk of non-adherence to the contraceptive method.

CONCLUSIONS

It was found that there are factors associated with non-adherence to contraceptive methods in women of childbearing age in Peru based on the Demographic and Family Health Survey of the year 2021. The area of rural residence is significantly associated with non-adherence to the contraceptive method, the area urban tube increased adherence to contraceptive methods in women of childbearing age between 15 and 49 years.

Separated, widowed and cohabiting marital status is significantly associated with non-adherence to the contraceptive method, single and divorced marital status had greater adherence to contraceptive methods in women of childbearing age between 15 and 49 years.

RECOMMENDATIONS

It is recommended to intensify family planning policies in rural areas, where our study shows a pressing need in this area that needs our attention.

It is advisable to provide information on the benefits of using contraceptive methods to separated and widowed women, beyond the fact of avoiding gestation, since not having a partner we could address other issues that may be of interest to them.

It is suggested to refocus our attention on women with a cohabiting marital status. Where we can raise awareness and emphasize to the population with the information already known that for the proper formation of a home, the planning of the future pregnancy is needed, with the complete willingness to help the couple and all the respective care, benefiting both the health of the mother and the child.

Correspondence: Luis Facundo Gramajo Cortez.
Address: Av. Alfredo Benavides 5440, Santiago de Surco.
Telephone number: 946543318
E-mail: 201320349@urp.edu.pe

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