Jurnal eduHealt
Volume 15 , Number 01, 2024, DOI 10.54209/eduhealth.v15i01
ESSN 2808-4608 (Online)
https://ejournal.seaninstitute.or.id/index.php/healt

Age and socioeconomic status are associated with contraceptive choice among long-term reversible contraceptive method users in Indonesia (analysis of 2017 Indonesia demographic health survey data)

Nita Adhani Pasundani[1], Mutiara Solechah[2], Anida Izatul Islami[3]
[1,2,3]Program Studi Kebidanan Program Sarjana, Fakultas Ilmu Kesehatan, Universitas Muhammadiyah Tasikmalaya, Jl. Tamansari KM 2,5 Kota Tasikmlaya Indonesia

Article Info
Keywords:
contraception,
long-acting contraceptive methods,
socioeconomic status

ABSTRACT
Indonesia's increasing population will bring various problems in the future, besides that the maternal mortality rate (MMR) is still high, one of which is caused by too close a birth distance so it is necessary to control or control population growth through family planning programs. In 2015-2035, it is predicted that there will be a demographic bonus (population explosion) which will have an impact on the abundance of productive age that cannot be utilized and even become a burden on the country (Falikhah, 2017). The purpose of this study was to determine the relationship between age and socioeconomic status with contraceptive selection in users of reversible long-term contraceptive methods in Indonesia, analyzed by the 2017 IDHS. The design used in this study was cross sectional with a research sample of 8,238, samples were taken based on total sampling of data that included the inclusion and exclusion criteria of the study. Bivariate and multivariate analysis using logistic regression. The results showed that 58.4% used implants, 41.6% used IUDs. This study shows that there is a relationship between age and socioeconomic status with contraceptive selection in users of long-term reversible contraceptive methods.

Corresponding Author:
Nita Adhani Pasundani
Program Studi Kebidanan Program Sarjana, Fakultas Ilmu Kesehatan, Universitas Muhammadiyah Tasikmalaya, Indonesia
nitha.adhani@umtas.ac.id

INTRODUCTION

Worldometers recorded that the world population in 2019 reached 7.7 billion. Regionally, Asia leads as the most populous region, with 4.6 billion people in Asia, Africa and Europe following with 1.3 billion and 747.2 million respectively. Indonesia is a large country with the fourth largest population in the world. Based on population projections for 2015-2045 from the 2015 inter-census population survey, Indonesia's population will reach 269.6 million in 2020 (Jayani, 2019).

Jurnal eduHealt
Volume 15 , Number 01, 2024, DOI 10.54209/eduhealth.v15i01
ESSN 2808-4608 (Online)
https://ejournal.seaninstitute.or.id/index.php/healt

In the field of public health, Indonesia still faces serious challenges, namely high MMR, IMR and stunting. The maternal mortality rate (MMR) in Indonesia in 2015 was still high at 305 per 100,000 live births (BPS, 2015).

One of the programs to reduce MMR is the family planning program. In the Indonesian Law No. 52 of 2009 concerning population development and family development that population control efforts by regulating the number of births, the distance and the ideal age of childbirth, regulating pregnancy is through family planning programs (KB), through this program every family can plan its life to be more qualified and prosperous. However, the use of modern contraceptive prevalence rate (PCR) decreased from 57.9 percent (IDHS 2012) to 57.2 percent (Kementrian kesehatan, 2017)

Improving the quality of life can be realized through controlling quantity, improving quality and directing population mobility. With a balanced population growth, the capacity and carrying capacity of the environment can be maintained. This can be achieved by reducing the average national total fertility rate (TFR). The TFR rate from 1987 continued to decline until 2002-2003 and stagnated until 2012 then in 2017 it decreased to 2.4 but this still did not reach the target where the TFR in 2024 was 2.1 (BKKBN, 2018).

The strategy and implementation of the family planning program itself as stated in the National Medium-Term Development Plan (RPJMN) 2020-2024 on improving maternal, child, family planning and reproductive health. Expansion of access and quality of family planning and reproductive health services according to regional characteristics by optimizing the role of the private sector and local governments through advocacy, communication, information, education (IEC) and counseling on population control, family planning and reproductive health, increasing the competence of family planning extension workers (PKB) and family planning field officers and the capacity of field line personnel and strengthening health facilities, networks and networks of health facilities in family planning and reproductive health services and community-sourced health efforts (Bappenas, 2020).

Based on effectiveness, long-acting reversible contraceptive methods are the most effective in preventing and spacing pregnancies (Mieke C. W. Eeckhaut, Megan M. Sweeney, 2014). According to (Bertand, 1980), the factors that influence contraceptive use are 1) socio-demographic factors (education, family income, employment status, type of housing, nutritional status, age, ethnicity, religion), 2) socio-psychological factors (ideal family size, importance of having sons, attitude towards family planning, husband-wife communication and perceptions of child mortality, 3) factors related to health services include knowledge of contraceptive sources, distance to service centers and involvement with mass media.

METHODS

The data used in this study were secondary data, namely the 2017 Indonesian Health Demographic Survey (IDHS). This study used a cross sectional method. The population in this study were all women of childbearing age (WUS) aged 15-49 years who used long-term reversible contraceptive methods (IUD or implant). The sample of this study was all

Jurnal eduHealt
Volume 15 , Number 01, 2024, DOI 10.54209/eduhealth.v15i01
ESSN 2808-4608 (Online)
https://ejournal.seaninstitute.or.id/index.php/healt

Women of Fertile Age (WUS) aged 15-49 years who use reversible contraceptive methods, namely IUD users amounting to 3,855 and 4,383 implants. The dependent variable used in this study is the choice of contraception on long-term reversible contraceptive methods, while the independent variables are age and economic status. The data analysis used was simple logistic regression test.

RESULTS AND DISCUSSION

Result

Research regarding the relationship between age and socioeconomic status with contraceptive selection in users of long-term reversible contraceptive methods (Analysis of Indonesian health demographic survey data in 2017)

Table 1. Frequency distribution of respondents based on contraceptive selection on long-term reversible contraceptive methods

Contraception	N	%
IUD	3.855	46,8
Implan	4.383	53,2

Table 2. Age distribution of long-term reversible contraceptive method users

Variable	Total	Min-max	Mean	Std deviasi
Age	8.238	16-49	37,2	6,6

Table 3. Frequency distribution of respondents based on socioeconomic status

Variable	N	%
Economic Status		
• Very Low	1.690	20,5
• Low	1.583	19,2
• Medium	1.545	18,8
• High	1.515	18,4
• Very High	1.905	23,1

Results of biavariate analysis

Table 4. Results of Bivariate Analysis of Independent Variables Associated with Contraceptive Selection in Users of Reversible Long-Term Contraceptive Methods in Indonesia in 2017

Variable	Implant		IUD		P-value	OR	(95% CI)
	N	%	N	%			
Age							
• ≤35	4.556	55,3	3.68233.962	44,7	0,0001	1,144	0,957-1,368
• >35	4.276	51,9		48,1			
Economic Status	6.628	80,5	1.610	19,5	0,0001	16,37	11,260-

Jurnal eduHealt
Volume 15 , Number 01, 2024, DOI 10.54209/eduhealth.v15i01
ESSN 2808-4608 (Online)
https://ejournal.seaninstitute.or.id/index.php/healt

Variable	Implant		IUD		P-	OR	(95% CI)
• Very Low	5.611	68	2.627	32	0,0001	8,496	23,813
• Low	4.682	57	3.556	43	0,0001	5,235	6,133-11,769
• Medium	3.723	45	4.515	55	0,0001	3,278	3,808-7,200
• High	1.655	20	6.583	80		1	2,389-4,500
• Very High							

Table 5. Preliminary Multivariate Modeling associated with contraceptive choice among long-term reversible contraceptive method users in Indonesia in 2017

No	Variable	p-value	OR	95% CI
1	Age			
	• ≤35	0,001	1,432	1,151-1,781
	• > 35		1	
	Economic Status			
2	• Very Low	0,0001	4,381	2,913-6,587
	• Low	0,0001	2,936	2,016-4,275
	• Medium	0,0001	2,362	1,661-3,361
	• High	0,0001	1,975	1,405-2778
	• Very High		1	

Based on the initial multivariate modeling, it can be seen that there are several factors that have a p-value>0.05, namely the variables of discussion with husband, field officer visits, working status and media information. Furthermore, modeling was carried out in stages, and the final modeling was obtained as follows :

Table 6 Multivariate modeling of associations with contraceptive choice among long-term reversible contraceptive method users in Indonesia in 2017

No	Variable	p-value	OR	95% CI
1	Age			
	• ≤35	0,002	1,404	1,302-1,744
	• > 35		1	
2	Economic Status			
	• Very Low	0,0001	4,586	3,040-6,918
	• Low	0,0001	2,991	2,048-4,368
	• Medium	0,0001	2,403	1,686-3,424
	• High	0,0001	2,029	1,439-2,840
	• Very High		1	

Discussion

Age

Based on age characteristics, the proportion of age using implants is age ≤35 years by 55.3% and IUD 44.7%, age >35 years using implants 51.9% and IUD 48.1%. The results

Jurnal eduHealt
Volume 15 , Number 01, 2024, DOI 10.54209/eduhealth.v15i01
ESSN 2808-4608 (Online)
https://ejournal.seaninstitute.or.id/index.php/healt

of statistical tests showed that the age variable was associated with contraceptive selection in users of long-term reversible contraceptive methods (p-value 0.001). The age variable has an OR value of 1.432 (CI 95% 1.151-1.781) which means that women with age ≤35 years tend to use implant type contraception 1.432 times compared to age >35 years.

This is in line with research (Saki et al., 2021) which shows that women aged ≥35 years tend to use long-term contraceptive methods with the aim of limiting pregnancy, while women of reproductive age 15-24 years tend to use short-term contraceptive methods such as injectable contraceptives, pills with the aim of spacing pregnancies. Based on research (Putri, 2019), age characteristics the majority of respondents were aged 36 to 45 years, with an average age of 39 years. The choice of contraceptives can be influenced by age. Women who are over 35 years old are recommended to use a type of long-acting contraceptives with high effectiveness.

Age has an influence on the use of IUD contraception, where the age of the mother as one of the benchmarks in using appropriate contraceptives. IUD contraception is more suitable for mothers in the phase of ending pregnancy, namely at the age of >35 years with more than 2 children. Mother's age <20 years who use the IUD as many as 4 people and who do not use the IUD as many as 6 people due to the young age of the mother to easily get pregnant without having to open the IUD first (Jolyarni D et al., 2023). This is in line with research (Triyanto, 2019), which shows that those aged >30 years tend to use IUD type contraceptives 4.587 times compared to using implants. In old reproductive age, it is likely that they already have 2 children, so they prefer long-term methods that are not hormonally related.

Economic status

Most women of childbearing age had a very high economic status of 1,905 (23.1%), high economic status of 1,515 people (18.4%), medium economic status of 1,545 (18.8%), low economic status of 15,83 people (19.2%), and very low economic status of 1,690 people (20.5%). The results of statistical tests showed that economic status variables were associated with contraceptive selection in users of long-term reversible contraceptive methods with details of women with very low economic status having a tendency to use implants 4.381 times compared to women with very high economic status. Women with low economic status had a tendency to use implants 2.936 times compared to women with very high economic status. Women with middle economic status were 2.362 times more likely to use implants than women with very high economic status. Women with high economic status were 1.975 times more likely to use implants than women with very high economic status. This study shows that the lower the level of economic status, the greater the likelihood of using implantable contraceptives.

The ability of women or married couples to be more effective in family planning can be increased or hindered by economic status, women with high economic status will choose the most effective contraception compared to respondents who have low economic levels (Varney, 2006).

Jurnal eduHealt
Volume 15 , Number 01, 2024, DOI 10.54209/eduhealth.v15i01
ESSN 2808-4608 (Online)
https://ejournal.seaninstitute.or.id/index.php/healt

Fertility is affected by national trends in prosperity, the current or future financial status of on individual or family, whwther a woman works, and whether the woman or her family receives welfare (Hutchinson, 2005).

Based on this study (Tadele & Berhanu, 2021), it was found that people with lower quantile wealth tended not to use long-acting contraceptives, while the most people who used long-acting contraceptive methods were in the middle quantile wealth. This is also in line with research (Nur Mahmudah, 2015) that family planning acceptors in poor family groups have a chance to choose non-long-term contraceptive methods by 1.474 times greater than acceptors in non-poor family groups.

CONCLUSION

Age and level of economic status have a considerable role in determining the selection of contraceptive methods in users of long-term reversible contraceptive methods. Women of childbearing age ≤ 35 years old have a tendency to use implant type contraception 1.4 times compared to IUD compared to women of childbearing age with age > 35 years. Whereas women with very low economic status had a tendency to use implant contraception 4.381 times compared to IUD compared to very high economic status, women with low economic status had a tendency to use implant contraception 2.936 times compared to IUD compared to very high economic status, women with middle economic status had a tendency to use implant contraception 2.362 times compared to IUD compared to very high economic status, and women with high economic status had a tendency to use implant contraception 1.975 compared to IUD compared to very high economic status. To increase the use of long-term reversible contraceptive methods, it is recommended to increase information related to contraception through health promotion by going directly to the community or through media both print and electronic which is packaged in a concise but easily digested by all circles of society so that people with low education can also understand the information.

REFERENCE

Bappenas. (2020). Rpjmn 2020-2024. *National Mid-Term Development Plan 2020-2024*, 313. https://www.bappenas.go.id/id/data-dan...dan.../rpjmn-2015-2019/

Bertand, J. (1980). *Audience Research for Improving Family Planning Communication Program*.

BKKBN. (2018). *Angka Fertilitas Total (TFR) menurut Karakteristik dan Provinsi , Indonesia , SKAP*.

BPS. (2015). *Survey Penduduk antar Sensus 2015*. https://www.bps.go.id/id/publication/2015/11/23/9de128fbeea9ae5bd40914d0/penduduk-indonesia-hasil-survei-penduduk-antar-sensus-2015.html

Falikhah, N. (2017). Bonus Demografi Peluang Dan Tantangan Bagi Indonesia. *Alhadharah: Jurnal Ilmu Dakwah*, *16*(32). https://doi.org/10.18592/alhadharah.v16i32.1992

Hutchinson, H. (2005). The Best Intentions. In *Mechanical Engineering* (Vol. 127, Issue 2).

https://doi.org/10.1115/1.2005-FEB-3

Jayani, D. H. (2019). *Jumlah Penduduk Indonesia*. https://databoks.katadata.co.id/datapublish/2019/04/29/jumlah-penduduk-indonesia-269-juta-jiwa-terbesar-keempat-dunia

Jolyarni D, N., Handayani, R., & Nadrah, N. (2023). Faktor – Faktor Yang Memengaruhi Rendahnya Penggunaan Kontrasepsi Iud. *Jurnal Keperawatan Priority*, *6*(1), 29–41. https://doi.org/10.34012/jukep.v6i1.3256

Kementrian kesehatan. (2017). *Survey Demografi Kesehatan Indonesia*.

Mieke C. W. Eeckhaut, Megan M. Sweeney, and J. D. G. (2014). *Who Is Using Long-Acting Reversible Contraceptive Methods? Findings from Nine Low-Fertility Countries*. *49*(18), 1841–1850. https://doi.org/10.1363/46e1914.Who

Nur Mahmudah, L. T. (2015). Analisis Faktor Yang Berhubungan Dengan Pemilihan Metode Kontrasepsi Jangka Panjang (Mkjp) Pada Akseptor Kb Wanita Di Kecamatan Banyubiru Kabupaten Semarang. *Unnes Journal of Public Health*, *4*(3), 76–85.

Putri, R. P. (2019). Perbandingan Faktor-Faktor yang Mempengaruhi Penggunaan Kontrasepsi Intra Uterine Devices (IUD) dan Kontrasepsi Implant pada Wanita Usia Subur di Kecamatan Sukarame Kota Bandarlampung. *Majority*, *8*(2), 120–124. https://juke.kedokteran.unila.ac.id/index.php/majority/article/viewFile/2458/2409#:~:text=Adapun faktor-faktor yang mempengaruhi,dukungan suami%2C dan pelayanan KB.

Saki, V. Y., Deniati, E. N., Besral, & Ekoriano, M. (2021). the Role of Individual and Community Factors on the Use of Long-Term Contraceptive Methods (Mkjp) on Women of Reproductive Age Couples in Indonesia 2018. *Indonesian Journal of Public Health*, *16*(3), 492–502. https://doi.org/10.20473/ijph.v16i3.2021.492-502

Tadele, A., & Berhanu, M. (2021). Trends and factors influencing long-acting contraceptive utilisation among contraceptive users in Ethiopia: Repeated cross-sectional study. *BMJ Open*, *11*(1), 1–7. https://doi.org/10.1136/bmjopen-2020-037103

Triyanto, L. (2019). Faktor Yang Mempengaruhi Penggunaan Jenis Metode Kontrasepsi Jangka Panjang (Mkjp) Pada Wanita Menikah Usia Subur Di Provinsi Jawa Timur. *The Indonesian Journal of Public Health*, *13*(2), 246. https://doi.org/10.20473/ijph.v13i2.2018.246-257

Varney. (2006). *Buku Ajar Asuhan Kebidanan vol 14th ed*. EGC.