



Original Research

The Relationship between Perception and Self Efficacy of Long-Acting Reversible Contraceptive (LARC) Utilization in Women's Reproductive Ages

Maulidiyah Mahayu Nilam Anindy, Makhfudli, Ni Ketut Alit Armini

Faculty of Nursing, Universitas Airlangga, Surabaya, Indonesia

ARTICLE HISTORY

Received: Jun 13, 2021
Revised: May 21, 2022
Accepted: May 21, 2022
Published: May 30, 2022

KEYWORDS

Contraception,
family planning,
perception, self-
efficacy, women's
health

CORRESPONDING AUTHOR

Ni Ketut Alit Armini
nk.alita@fkn.unair.ac.id
Faculty of Nursing,
Universitas Airlangga,
Surabaya, Indonesia

Cite this as:

ABSTRACT

Introduction: LARC effectively prevents pregnancy; however, its use is still low. Self-efficacy and perception have an impact on the decision to use LARC. This study aimed to determine the relationship between perception and self-efficacy of LARC utilization in women of reproductive age

Methods: Cross-sectional study design. The population of women of reproductive age couples in the Bungah Health Center area. The research sample was 88 respondents selected by purposive sampling. The study's independent variable is the perceived benefits and perceived barriers, while the dependent variable was the self-efficacy in choosing LARC. The research instrument used a questionnaire. Statistical analysis using the Spearman's rho test with a $<0,05$.

Results: There was a relationship between perceived benefits and self-efficacy in choosing LARC ($p = 0.000$) with $r = 0.684$. There is a relationship between the perceived barrier and self-efficacy in choosing LARC ($p = 0.000$) with a value of $r = -0.407$.

Conclusion: The higher the perceived benefit, the higher self-efficacy in choosing LARC. However, if the perceived barriers are high, self-efficacy in choosing LARC will decrease. Further research needs to be done regarding other people's support factors for the choice of LARC.

Anindy, M, N, M., Makhfudli & Armini, N, K, A, (2022). The Relationship between Perception and Self Efficacy of Long-Acting Reversible Contraceptive (LARC) Utilization in Women's Reproductive Ages. *Pedimaternals Nurs. J.*, 8(1). Doi: <http://dx.doi.org/10.20473/pmnj.v8i1.27482>

1. INTRODUCTION

The population in Indonesia from 2012- to 2015 has increased every year. In 2015 the population of Indonesia was 255 million, and it became 267 million in 2018. This population will increase yearly in line with the significant population growth rate projected of 2.32 per cent by 2020 (BKKBN, 2015) (BPS, 2017). The Indonesian government refers to couples of reproductive age to use the long-acting reversible contraceptive method (LARC) (Bappenas, 2019). However, the reality is still dominated by choosing short-acting contraceptive methods such as birth control pills and injections (SDKI, 2017). Research (Lee et al., 2014) found that perceptions of reproductive age couples influence LARC choosing decisions. Communication between partners regarding family planning (FP) is still rarely done, making the perception of reproductive age couples about LARC deficient (Chekole et al., 2019). The actual behavior of acceptors, such as motivation, desire to bear, intention, and socio-cultural barriers, can influence acceptors' perceptions in choosing LARC (Triyanto and Indriani, 2019). The choice of contraceptive method is also related to self-efficacy and commitment with partners in determining the period of delay in pregnancy and the effectiveness of a contraceptive method (Harvey et al., 2018).

Active participants of contraceptive prevalence rate (CPR) for reproductive age couples aged 15-49 years reached 64% (SDKI, 2017). In the results of the 2015 Inter-Census Population Survey (SUPAS), there was a decrease compared to the 2012 SDKI. The prevalence of contraceptive use for all methods in 2015 by SUPAS results was 57.9%, and modern contraception was 57.1%. BKKBN data for Gresik Regency until the end of February 2019 shows the number of active family planning participants in Gresik Regency is 79.2% of the total reproductive age couples and 18.9% of whom are LARC users (Gresik, 2019). Based on the results of a preliminary conducted by researchers at the Bungah Health Center on March 11, 2020, it was found that the number of IUD and implant acceptors was 10.74% of the total number of contraceptive users.

A person choosing an action is influenced by various aspects, such as individual perceptions, to self-efficacy (Prastika, Pradine and Armini, 2019). Factors affecting reproductive age couples' participation in family planning programs are poor knowledge of family planning, community socio-culture, and ways to access family planning services (BKKBN, 2017). Several other factors that triggered acceptors' concerns about using contraceptives are the side effects. Many acceptors are afraid before consulting with health workers who have a decent understanding of any problem of contraceptives (Sumartini and Indriani, 2017). The decision to determine the use of a contraceptive method or contraceptive device means a reaction to several alternative solutions by analyzing the possibilities and consequences of each contraceptive method (Fitri and Fitriyah, 2018). The study aimed to determine the relationship between perceptions and self-efficacy in choosing LARC in women of reproductive age.

2. METHOD

2.1 Design

The study design was quantitative with a cross-sectional approach

2.2 Population

2.2 Population, Samples, and Sampling

The population in this study were women of reproductive age couples who used LARC contraception in the Bungah Community Health Center, Gresik Regency. The number of samples 88 LARC acceptors included intrauterine device and implant acceptors selected by *purposive* sampling. The criteria for LARC acceptors users more than one month after contraceptive use. The number of samples was calculated using the Slovin calculation formula with a significant level of 0.1. The sample obtained was 87.9. The research was conducted in 8 villages with the most LARC users in the working area of Puskesmas Bungah, Gresik Regency.

2.3 Variables

The dependent variable in this study is self-efficacy. The independent variable in the study is perception.

2.4 Instruments

An instrument using a closed-ended questionnaire includes a demographic, the contraceptive use, the perceived benefit, the perceived barrier, and the self-efficacy questionnaire

2.5 Procedure

Data collection was carried out for three weeks. The data collection technique is done in 2 ways: online/online in google form and door to door.

2.6 Analysis

The assessment criteria in this study used a high low score with the mean T formula. The data results were processed and tested using a non-parametric statistical test of Spearman rho correlation.

2.7 Ethical Clearance

This research has received an ethics certificate from the Health Research Ethics Committee of the Faculty of Nursing Airlangga Surabaya with number 2011-KEPK on May 18, 2020.

3. RESULT

The characteristics of respondents in terms of age, the majority were aged 36-45 years with a percentage of 56.8%, the majority of respondents were married aged 20-25 years by 58%, the majority of respondents were married at 11-20 years of age by 42%, most respondents were senior high school at 51.1%, the most respondents type of occupation was Housewife at 87%, while the respondent's family income in 1 month mainly was below the regional minimum wage which was less than IDR 4.197.030 (Gresik Regency Minimum Wage in 2020) of 65.9%.

Based on table 2 shows that the characteristics of most respondents have more than two children, 51.1%, and most of the respondents wish to have two children

after marriage 56.8%. Most respondents' information was health workers 54.5%, and the length of time using LARC most of them was between 1 to 5 years, 46.6%. Most of the respondents in chose LARC were their self-desire at 34.1%, while the majority of respondents want to continue using LARC contraception was 84.1%.

Table 3 shows that respondents who have a high perceived benefit tend to have high self-efficacy in choosing LARC (40.9%) compared to respondents who have a low perceived benefit with high self-efficacy (11.4%). Conversely, respondents who have a low perceived benefit tend to have low self-efficacy (32.9%) compared to respondents who have a high perceived benefit with low self-efficacy (14.8%). Spearman's rho statistical test was obtained $p = 0.000$, and the correlation value coefficient = 0.684. There is a strong relationship between perceived benefits with self-efficacy in choosing LARC for women of reproductive age. Meanwhile, respondents who have high perceived barriers tend to be self-reliant. Its efficacy is low (30.7%) compared to respondents with low perceived barriers with low self-efficacy (17%). Respondents with a low perceived barrier tend to have high self-efficacy (28.4%) compared to respondents who have a high perceived barrier with high self-efficacy (23.9%). The Spearman rho test shows $p=0.000$ ($0.000 < 0.05$), and the correlation coefficient value is $r = -0,407$. It can be concluded that there is a strong relationship between perceived barriers and self-efficacy in choosing LARC in women of reproductive age.

Table 1. Demographic Characteristics

| Chararacteristics | N | % |
|--------------------------|----------|----------|
| Age | | |
| < 25 Years | 4 | 4 |
| 26-35 Years | 25 | 28.4 |
| 36-45 Years | 50 | 56.8 |
| 46-55 Years | 9 | 10.2 |
| Married Age (Years Old) | | |
| <20 Years | 20 | 22.7 |
| 20-25 Years | 51 | 58 |
| 26-30 Years | 13 | 14.8 |
| > 30 Years | 4 | 4.5 |
| Long of Marriaed (Years) | | |
| 1-5 Years | 9 | 10.2 |
| 6-10 Years | 20 | 22.7 |
| 11-20 Years | 37 | 42 |
| > 20 Years | 22 | 25 |
| Educational Level | | |
| Elementary School | 9 | 10.2 |
| Junior High School | 17 | 19.3 |
| Senior High School | 45 | 51.1 |
| Higher Education | 17 | 19.3 |
| Occupation | | |
| Civil servants | 5 | 5.7 |
| Enterpreneur | 3 | 3.4 |
| Private | 7 | 8.0 |
| Houswife | 73 | 83 |
| Income IDR 4,197,030 | | |
| < Gresik Minimum Wage | 58 | 65.9 |
| ≥ UMR | 30 | 34.1 |

Table 2. Considerations for using contraception

| Characteristics | N | % |
|--|----------|----------|
| Number of Children | | |
| One Child | 11 | 12.5 |
| Two Children | 45 | 51.1 |
| > 2 Children | 32 | 36.4 |
| Number of Children Desire | | |
| One Child | 2 | 2.3 |
| Two Children | 50 | 56.8 |
| > 2 Children | 36 | 40.9 |
| Source of Information | | |
| Health Workes | 48 | 54.5 |
| Close Relatives | 4 | 4.5 |
| Health Workers and Media | 4 | 4.5 |
| Health Workers and Close Relatives | 25 | 28.4 |
| Choosing All Options | 7 | 8 |
| Duration of Use LARC | | |
| < 1 Years | 14 | 15.9 |
| 1-5 Years | 41 | 46.6 |
| 6-10 Years | 25 | 28.4 |
| > 10 Years | 8 | 9.2 |
| Reasons using LARC | | |
| Self-Desire | 30 | 34.1 |
| Effective and Efficient | 11 | 12.5 |
| Self-Desire and other Suggestions | 10 | 11.4 |
| Self-Desire and Effective/ Efficient | 17 | 19.3 |
| Other Suggestion and Effective/Efficient | 4 | 4.5 |
| Select All Options | 16 | 18.2 |
| LARC Continuation Plan | | |
| Yes | 74 | 84.1 |
| No | 14 | 15.9 |

Table 3. Analysis of perceptions and self-efficacy in LARC utilization

| Variables | Self Efficacy Election LTCM | | | | | | Statistic Test Spearman Rho |
|--------------------|-----------------------------|------|-----|------|---------|------|-----------------------------|
| | High | | Low | | Totally | | |
| | n | % | n | % | n | % | |
| Perceived Benefit | | | | | | | |
| High | 36 | 40.9 | 13 | 14.8 | 49 | 55.7 | p= 0.000 |
| Low | 10 | 11.4 | 29 | 32.9 | 39 | 44.3 | r= 0.684 |
| Totally | 46 | 52.3 | 42 | 47.7 | 88 | 100 | |
| Perceived Barriers | | | | | | | |
| Hight | 21 | 23.9 | 27 | 30.7 | 48 | 54.6 | p= 0.000 |
| Low | 25 | 28.4 | 15 | 17 | 40 | 45.4 | r= - 0.407 |
| Totally | 46 | 52.3 | 42 | 47.7 | 88 | 100 | |

4. DISCUSSION

Perceived benefits and self-efficacy of choosing LARC have an intense relationship. The majority of respondents who have a high perceived benefit also have high self-efficacy; on the contrary, respondents with a low perceived benefit tend to have low self-efficacy. Women who have high self-efficacy tend to be more involved in choosing LARC contraception (Hamidi et al., 2018). The theory fits with research results that show acceptors who have positive perceived benefits also have High self-efficacy in utilizing LARC.

Perception is one aspect of psychology that is important for humans in responding to various aspects and symptoms around. Perception is a direct response from an or the process of a person knowing things through the five senses. Everyone tends to see things in different ways. The difference can be influenced by many factors, including age, sources of information, and income. The aged majority of respondents who chose contraception LARC ranged from 36-45 years. In line with the research conducted by (Triyanto and Indriani, 2019), found a significant relationship between age and choosing of LARC. Age acts as an intrinsic factor, affecting organ structure, function, and hormonal in the age period. A person who is more than 30 years old already has 2 (two) children, choosing contraception for a more extended period (Bernadus, Madianung and Masi, 2013).

Exposure to information sources about contraception is related to interest in joining family planning. Exposure to information sources indicates how much knowledge can be accessed by individuals (Armini, NKA; Triharini, Mira; Nastiti, 2020). The majority of respondents received information about the benefits of LARC from health workers. Someone will believe and obey everything

the health workers recommend because they feel there are benefits. Positive benefits will encourage acceptors to take health action to obtain these benefits (Carlson, 2009). The more exposure to information sources can be identified with the increasing number of individuals receiving health promotion (Sapkota, Rajbhandary and Lohani, 2017). The cost of using contraception affects the choice of contraceptive method and contraceptive use if calculated from an economic perspective. The majority of respondents have an income below the Gresik minimum wage. The respondents stated that the cost of using LARC is not expensive. The difference with the research of (Amran and Damayanti, 2018) where most family planning acceptors think that the use of LARC contraception is considered quite expensive.

Suggestions from other people in selecting LARC in the Bungah Community Health Center were solid and influential, particularly advice from health workers. Regarding the beliefs of other respondents said he got advice from health workers in choosing LARC. This research is in line with research conducted by (Amran and Damayanti, 2018) which states that health workers play a critical role in the final stages of using contraceptives. Health workers play a role in providing information about the benefits and types of LARC contraceptives; apart from that, health workers also encourage respondents to choose LARC contraception, especially respondents who are more than 30 years old. The majority of respondents answered that the experiences of friends and neighbours had influenced the respondents in deciding to choose LARC contraception. Experience can be used and becomes a reference as well as learning. Experience in using contraception cannot be ignored because most family planning acceptors want the best and to minimize the side effects of using

contraception (Morgan and Datta, 2018).

Perceived barriers and self-efficacy in this study have a strong relationship. The statistical tests show that the higher the perceived barrier, the lower the self-efficacy owned. Barriers can build up the motivation for avoiding behaviours in making decisions and self-efficacy, which can influence behaviour in deciding something (Sri Rezeki Amanda, Ni Ketut Alit Armini, 2021). Self-efficacy is important in shaping behaviour change. Perceived barriers that exist in individuals can hinder individuals from making decisions choosing LARC. The high perceived barriers in something will make individuals reluctant to act because they feel disadvantaged (Silva dos Santos et al., 2017). The research shows that acceptors with a high perceived barrier have low self-efficacy against the LARC utilization.

Perceived barriers are attitudes that directly hinder activity by reducing commitment to activity plans. Of the 40 respondents who have negatively perceived barriers, as many as 14 respondents did not want to continue contraception. The experience felt by respondents in using contraceptives, such as effects side, shortcomings, and costs, can be triggers for not using LARC contraceptives (Sulaiman, 2018). Almost all contraceptives have side effects that can influence the selection of contraception. Acceptors who feel uncomfortable with the side effects of using LARC contraception were not will continue to use contraception (Septalia and Puspitasari, 2017). While barriers regarding the support of others also have a high perception of resistance. Norms as part of society's culture and status should have been strengthened by sanctions for those who do deviations.

A person's perception of high barriers will reduce the person's level of self-efficacy. With low self-efficacy, acceptors are also reluctant to perform repetitive behaviours. If self-efficacy acts with low and high resistance, this action may not happen (Choiriyah, Armini and Hadisuyatmana, 2020). Otherwise, if self-efficacy to act is high and resistance is low, it is likely to do more extensive action. The everyday use of LARC contraceptives in the Bungah District area causes residents also be reluctant to use LARC contraceptives. Some acceptors said they still do afraid of the process of installing

LARC, resulting in trauma for the next LARC installation. Some respondents said that they were uncomfortable when installing LARC contraceptives. This shows that the acceptors still lack trust in health workers. The lack of information also affects acceptors in deciding the LARC election. The majority of acceptors chose LARC contraception only because it was ordered/recommended by a midwife/health worker without knowing about the benefits and side effects that may occur. The side effects are one of the reasons most acceptors were given. Many acceptors complained of having problems with menstruation. Family planning acceptors who have experienced side effects from contraceptives are more likely to discontinue using the contraceptive. Perceived barriers that occur by some acceptors affect the self-efficacy of deep acceptors' termination of choosing LARC.

Apart from side effects, the husband's support also affects the choice of contraception LARC, society, and couples of reproductive age still consider the husband's participation. The point of view tends to give up the responsibility for implementing family planning and reproductive healthfully to women so that the husband does not want to interfere and rarely asks his wife to discuss family planning. Lack of husband's participation in contraceptive selection, so it needs more information for couples of reproductive age about the use of contraception as their responsibility. Couples of reproductive age must support each other in using contraceptive methods because family planning and reproductive health are not just a person.

5. CONCLUSION

Acceptors who have a positive perception of benefits tend to have high self-efficacy. Perceptions of positive benefits are influenced by self-will, and suggestions from others, so that they can form high self-efficacy. Acceptors who have a high perception of barriers tend to have low self-efficacy. The perception of barriers is high because they are worried when installing LARC, which impacts the acceptor's self-efficacy. Further research is needed on the husband's involvement in increasing the use of LARC.

6. ACKNOWLEDGEMENT

The author expresses our gratitude to the Bungah Community Health Center, Gresik Regency, for permission to conduct research. Village cadres who are willing to help in the data collection and all respondents who have been willing and participated.

7. CONFLICT OF INTEREST

The author states that there is no conflict of interest in this study.

8. REFERENCES

- Amran, Y. and Damayanti, R. (2018) 'Hubungan Antara Motivasi Keluarga Berencana Dan Persepsi Terhadap Alat Kontrasepsi Dengan Pola Penggantian Metode Kontrasepsi Di Nusa Tenggara Barat', *Jurnal Kesehatan Reproduksi*, 9(1), pp. 59–67. doi: 10.22435/kespro.v9i1.884.59-67.
- Armini, NKA; Triharini, Mira; Nastiti, A. A. (2020) 'Empowerment of Posyandu Cadres in Promotion of Family', *Jurnal Layanan Masyarakat (Journal of Public Service)*, 4(1), pp. 109–115.
- Bappenas (2019) 'Rancangan Teknokratik Rencana Pembangunan Jangka Menengah Nasional 2020 - 2024: Indonesia Berpenghasilan Menengah - Tinggi Yang Sejahtera, Adil, dan Berkesinambungan', Kementerian PPN/ Bappenas, p. 313. doi: 10.1017/CB09781107415324.004.
- Bernadus, J. D., Madianung, A. and Masi, G. (2013) 'Faktor-faktor yang berhubungan dengan pemilihan alat kontrasepsi dalam rahim (AKDR) bagi akseptor KB di Puskesmas Jailolo', *e-NERS*, 1(1).
- BKKBN (2015) 'Kualitas Sumber Daya Manusia Dalam Menggapai Bonus Demografi', *Jurnal Populasi*, 2(1), pp. 102–114. doi: 2101018.
- BKKBN (2017) 'Peraturan Kepala Badan Kependudukan dan Keluarga Berencana Nasional Nomor 24 Tahun 2017 Tentang Pelayanan Keluarga Berencana Pasca Persalinan dan Pasca Keguguran', *Pelayanan Keluarga Berencana Pasca Persalinan dan Keguguran*. Direktorat Kesehatan Reproduksi, p. 64.
- Carlson, R. J. (2009) 'The disruptive nature of personalized medicine technologies: implications for the health care system', *Public Health Genomics*. Karger Publishers, 12(3), pp. 180–184.
- Chekole, M. K. et al. (2019) 'Husbands' involvement in family planning use and its associated factors in pastoralist communities of Afar, Ethiopia', *Reproductive health*. Springer, 16(1), p. 33.
- Choiriyah, L., Armini, N. K. A. and Hadisuyatmana, S. (2020) 'Dukungan Suami dalam Pemilihan Metode Kontrasepsi Jangka Panjang (MKJP) pada Pasangan Usia Subur (PUS).', *Indonesian Journal of Community Health Nursing*, 5(2), p. 72. doi: 10.20473/ijchn.v5i2.18481.
- Fitri, P. Y. and Fitriyah, N. (2018) 'Gambaran Karakteristik Akseptor Keluarga Berencana (KB) Metode Kontrasepsi Jangka Panjang (MKJP) di Desa Payaman', *Jurnal Biometrika dan Kependudukan*, 6(1), pp. 70–78.
- Gresik, B. (2019) *Data Kependudukan Kabupaten Gresik*.
- Hamidi, O. P. et al. (2018) 'High Self-Efficacy Is Associated with Prescription Contraceptive Use', *Women's Health Issues*. Elsevier Inc., 28(6), pp. 509–513. doi: 10.1016/j.whi.2018.04.006.
- Harvey, S. M. et al. (2018) 'Contraceptive Method Choice Among Young Adults: Influence of Individual and Relationship Factors', *Journal of Sex Research*. Routledge, 55(9), pp. 1106–1115. doi: 10.1080/00224499.2017.1419334.
- Lee, T. et al. (2014) 'Perceptions about family planning and contraceptive practice in a marital dyad', *Journal of Clinical Nursing*. Wiley Online Library, 23(7–8), pp. 1086–1094.
- Morgan, S. and Datta, S. (2018) 'Contraception and its ethical considerations', *Obstetrics, Gynaecology and Reproductive Medicine*. Elsevier Ltd, 28(10), pp. 320–328. doi: 10.1016/j.ogrm.2018.09.004.
- Nasional, B. K. K. B. (2013) 'Survey

- demografi dan kesehatan Indonesia (SDKI) 2012', Jakarta: BKKBN.
- Prastika, B. P. S., Pradine, R. and Armini, N. K. A. (2019) 'Analisis Hubungan Gaya Hidup dengan Kualitas Hidup Wanita Pasangan Subur Akseptor KB IUD', *Jurnal Ners dan Kebidanan (Journal of Ners and Midwifery)*, 6(2), pp. 227-234.
- Sapkota, S., Rajbhandary, R. and Lohani, S. (2017) 'The Impact of Balanced Counseling on Contraceptive Method Choice and Determinants of Long Acting and Reversible Contraceptive Continuation in Nepal', *Maternal and Child Health Journal. Springer US*, 21(9), pp. 1713-1723. doi: 10.1007/s10995-016-1920-5.
- Selatan, S. (2018) 'Korelasi Self efficacy terhadap Pemakaian Alat Kontrasepsi pada Pasangan Usia Subur (PUS) di Kelurahan Tallo Kota Makassar Article history: Public Health Faculty Received 23 July 2018 Universitas Muslim Indonesia Received in revised form 23 October 201', 1(4), pp. 373-381.
- Septalia, R. and Puspitasari, N. (2017) 'Faktor yang Memengaruhi Pemilihan Metode Kontrasepsi', *Jurnal Biometrika dan Kependudukan*, 5(2), p. 91. doi: 10.20473/jbk.v5i2.2016.91-98.
- Silva dos Santos, P. de N. et al. (2017) 'Changes in body composition in women using long-acting reversible contraception', *Contraception. Elsevier Inc.*, 95(4), pp. 382-389. doi: 10.1016/j.contraception.2016.12.006.
- Sri Rezeki Amanda, Ni Ketut Alit Armini, T. K. (2021) 'The Analysis of the Perceptions in Selecting Intrauterine Device on Women of Child-Bearing Age Based on the Health Promotion Model Theory', *Journal of Computational and Theoretical Nanoscience*, 18(1-2), pp. 334-338. doi: <https://doi.org/10.1166/jctn.2021.9523>.
- Statistik, B. P. (2017) 'Badan Pusat Statistik', Retrieved Februari, 20, p. 2018.
- Sumartini, S. and Indriani, D. (2017) 'Pengaruh Keinginan Pasangan Usia Subur (Pus) dalam Penggunaan Metode Kontrasepsi Jangka Panjang', *Jurnal Biometrika dan Kependudukan*, 5(1), pp. 27-34.
- Triyanto, L. and Indriani, D. (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), p. 246. doi: 10.20473/ijph.v13i2.2018.246-257.