

## Differences The Evaluation of Media Below The Line for Increasing Larc Participation in Rural-Urban Regions

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### ABSTRACT

The Long-Acting Reversible Contraceptive Method (LARC) is one of the flagship programs of the Population and Family Planning Agency (BKKBN) for controlling pregnancy. The use of LARC is still very low in Indonesia, where South Kalimantan is the province with the lowest coverage. The purpose of this study is to evaluate the effectiveness of IEC media to increase LARC family planning participation for fertile age couple (FEC) in urban and rural areas. Quantitative research with a survey approach was carried out on women who did not use LARC contraception. The study was conducted for 7 months with a total sample of 266, consisting of 173 urban and 93 rural. The media below the line (BTL) evaluation consists of booklets, leaflets, and Balinese sheets with 4 dimensions: empathy, persuasion, impact, and communicativeness. Mann Whitney test was performed to analyze the difference in the effectiveness of BTL media between urban vs rural with a significance value of  $p < 0.05$ . The effectiveness of BTL media has a significant difference between urban areas and rural, where the highest score is in the Galcitas area with median score (min-max) of 12 (10-15). BTL media has a very high effectiveness on FEC's decision to use the LACR.

**Keywords:** LARC, Rural-Urban, Media Below the Line

### INTRODUCTION

Contraceptive methods can be grouped into two categories. These are long-acting reversible or permanent contraceptive methods (like intrauterine devices, implants, and sterilization) and short-term methods (like pills, condoms, spermicides, injectable, and other modern methods, and all traditional methods). Long-acting reversible or permanent contraceptive methods are generally used to limit childbearing, whereas short acting methods are important for birth delay and birth spacing. The factors associated with the use of these methods varied. Long-acting contraceptives have been described to have low failure rate, safer and cost effective compared to short acting contraceptives.<sup>1</sup>

The Long-Acting Reversible Contraceptive Method (LARC) is one of the flagship programs of the BKKBN for controlling pregnancy in the long term.<sup>2</sup> Data in several countries, including Indonesia, shows that the use of LARC is still

low. The study by Prescott and Matthews shows that the lack of use of this method is because it is controversial.<sup>3</sup> In addition, there are many public concerns about the safety of the procedure for inserting contraceptives, its side effects on breastfeeding mothers and HIV-infected women also have an impact on the lack of use of this method. Indonesian family profile data in 2018 and the BKKBN has shown that the percentage of LARC users of fertile age couples (FAC) is only 17.80%, where IUD is 7.35%, implants 7.20%, MOW 2.76%, and MOP 0.50%. South Kalimantan Province was the lowest LARC user among 35 other provinces, which was 6.41%. This data was strengthened in 2019, where implant users only 3.9%, IUD 1.5%, MOW 0.70%, and MOP 0.20%.<sup>4,5</sup>

The BKKBN has implemented the Bangsa Kencana Program for making people in rural area can access family planning services in an affordable way. However, the percentage of relatively participants in 2020 very low

relatively, where it only reached 10.94% of the regional target 77.05%. Especially in rural areas such as in Kotabaru, the achievement of active LARC participants was only 11.83% from the target 15.69%.<sup>5</sup> Based on this data, various efforts have been made to increase the achievement of LARC users. One of them is improving the quality of Information, Education, dan Communication, (IEC) to increase public knowledge about LARC through socialization and promotion of below the line media (booklets, leaflets, and flipcharts).<sup>6</sup>

IEC is a process of delivering the message content of the Family Planning (KB) program from the managers and implementers of the population program in this case the BKKBN to families and the community, especially for FAC who have had family planning and who have not had family planning to know, use and get responses, which are based on data and facts about family planning programs.<sup>7</sup>

Based on the results of research conducted at the Namotras Health Center, there is an influence of knowledge with the effectiveness of Communication, Information and Education (IEC) on the lecture method and leaflet media on PUS decision making in choosing contraceptives. There is an Influence of Attitudes with the effectiveness of Communication, Information and Education (IEC) based on Behavior on the lecture method and leaflet media on PUS decision making in choosing contraceptives There is an Influence of Action with the effectiveness of Communication, Information and Education (IEC) based on Knowledge of lecture methods and media leaflets on PUS decision making in choosing contraceptives.<sup>8</sup>

Decision-making tools in the form of a booklet consisting of two parts, i.e. the front as the main information for prospective acceptors and the back of the contains more detailed information about the method contraceptives to be described. Easy ABPK used by midwives and contains information in the form and interesting images so that easy to understand for potential acceptors, including acceptor of MKJP. According to Gita, et al (2014) on the Influence of Counseling Using ABPK Against IUD Contraceptive Use in Platerjo Village it is found that there is value meaningfulness ( $p$ ) of  $0.003 < 0.05$ .<sup>9</sup>

The use of media in counseling has proven useful to facilitate the acceptance of material by the target. Back sheet media (flipchart) is a fairly popular media in counseling activities in the health sector. The return sheet application is of course not limited to specific counseling, but it can also be used for other

activities as needed. Counseling with backsheet media really helps to increase the knowledge of mothers.<sup>10</sup>

Media has a role as a means to channel messages or information and determine the success of the process of delivering messages from communicators to communicants. Media effectiveness is determined by selecting the right media. Media selection is finding an effective way of conveying a number of messages so that they can reach the target audience clearly.

BTL media is expected to be an alternative for BKKBN to encourage the public, especially couples of FAC to actively participate in LARC family planning. One of the programs carried out by the BKKBN is to disseminate health information through a number of mass media with various methods of delivering information using BTL media, through sponsorship, CSR (Corporate Social Responsibility) activities, direct socialization, and others.<sup>11</sup>

There are limitations of research that evaluates the effectiveness of below the line media in increasing LARC participation for FAC, so this study aims to evaluate the effectiveness of IEC media for increasing LARC family planning participation for FAC in rural and urban areas.

## METHOD

This study is a quantitative study to evaluate the BKKBN program for BTL media (booklets, leaflets, flip sheets) using an observational survey approach. The study was conducted for 7 months. The subjects of this study were FAC who did not use the LARC contraception in Banjarbaru (urban) and Kotabaru (rural). The sample selection technique used a non-probability sampling technique with a purposive sampling approach. The number of samples was 173 urban and 93 rural FAC. The inclusion criteria for this study were: FAC who do not use the LARC contraception, unilliterate, willing to be respondents and live in the research location. Data analysis was performed by Mann Whitney to distinguish the effectiveness of below the line media in urban and rural.

## RESULT AND DISCUSSION

A total of 266 FACs were surveyed in this study, of which 173 respondents were in urban and 93 were in rural areas. Table 1 shown on socio-demographic characteristics in urban and rural areas. Most of the respondents' education was elementary to high school, both in urban (59.4%) and rural areas (97.8%). The majority of occupations are housewives and do not

work, with income below the minimum wage < Rp 2,877,478.00. Only 1.1% of FAC in rural areas do not use contraception. Most of the respondents know about LARC, but this finding

was inversely proportional to their interest in using LARC, which was only 24.71% for urban areas, and 5.38% for rural.

**Table 1. Data on socio-demographic characteristics of FAC in urban and rural areas**

	Urban		Rural	
<b>Sosio-Demografi</b>	<b>N (173)</b>	<b>%</b>	<b>N (93)</b>	<b>%</b>
<b>Education</b>				
Diploma/S1-S3	69	40,6	2	2,2
Elementary-high school	101	59,4	91	97,8
<b>Occupation</b>				
Worker	63	37,1	13	14,0
housewife	107	62,9	80	86,0
<b>Income Level</b>				
>= 2,877,478	48	28,2	12	12,9
<2,877,478	122	71,8	81	87,1
<b>Contraceptive Users</b>				
Yes	114	67,1	92	98,9
No	56	32,9	1	1,1
<b>BKKBN counseling participation</b>				
Yes	130	76,5	65	69,9
No	40	23,5	28	30,1
<b>Knowledge of LARC</b>				
Know	124	72,9	65	69,9
Did not know	46	27,1	28	30,1
<b>Interested in using LARC</b>				
Interested	42	24,71	5	5,38
Not Interested	128	75,29	88	94,62
<b>Parities</b>				
<= 2	118	69,4	32	34,4
> 2	52	30,6	61	65,6
<b>First Marriage Age</b>				
>=21 Years old	116	68,2	32	34,4
<21 Years old	54	31,8	61	65,6

Media below the line (BTL) is a marketing or promotional activity carried out at the retail or consumer level with the aim of embracing consumers to be interested in a product or service. There were 3 types of BTL media evaluated in this study in relation to increasing FAC's interest in using LARC, there were booklets, leaflets, and flipcharts. Table 2 shown the results of the media evaluation in the two regions. Overall, BTL media was considered good in its effectiveness as a promotional medium for the LARC program. Only 1-2% of respondents rated it less effective, and found in urban areas only. The effectiveness of BTL

media was evaluated using 4 critical dimensions: empathy (E), persuasion (P), impact (D), and communication (K). Empathy includes sub-variables that are easy to understand, like, and easy to remember. Persuasion includes attractive media, convincing respondents to use LARC, and trustworthy media. Then the impact includes the benefits of media to increase respondents' knowledge, the principle of creativity, and uniqueness. As for communicative, it means that the BTL media was easy to remember, the messages conveyed are easy to understand, and the media was memorable.

**Table 2. Effectiveness of media evaluation in urban and rural areas**

Media	Variables	Urban			Rural		
		Kategori	N	%	N	%	
Booklet	Empathy	Good	169	99,4	93	100,0	
		Less	1	0,6	0	0	
	Persuasion	Good	168	98,8	93	100,0	
		Less	2	1,2	0	0	
	Impatc	Good	169	99,4	93	100,0	
		Less	1	0,6	0	0	
	Communication	Good	169	99,4	93	100,0	
		Less	1	0,6			
	Leaflet	Empathy	Good	170	100,0	93	100,0
			Less	0	0	0	0
		Persuasion	Good	170	100,0	93	100,0
			Less	0	0	0	0
Impatc		Good	170	100,0	93	100,0	
		Less	0	0	0	0	
Communication		Good	168	98,8	93	100,0	
		Less	2	1,2	0	0	
Flip sheet		Empathy	Good	168	98,8	93	100,0
			Less	2	1,2	0	0
		Persuasion	Good	169	99,4	93	100,0
			Less	1	0,6	0	0
	Impatc	Good	169	99,4	93	100,0	
		Less	1	0,6	0	0	
	Communication	Good	169	99,4	93	100,0	
		Less	1	0,6	0	0	

BTL media is one of the implementations of Communication, Information and Education to increase people's awareness about the goals

and decisions of using family planning programs. This media promotes as well as

solves community problems in improving Family Planning program so that they are empowered.<sup>8</sup>

The differences in the effectiveness of BTL media were shown in table 3. The effectiveness of BTL media has a significant difference between urban and rural areas ( $p < 0.05$ ). Where the highest score was in rural with a median (min-max) of 12 (10-15). Urban areas scored lower, 12 (6-15). This difference was seen from the dimensions of empathy, impact, and communicativeness, while the persuasive media shows no difference ( $p > 0.05$ ).

In contrast, a study in Africa found that women from urban areas had significantly higher rates absorption of the LARC method compared to rural areas. This could possibly be explained by the low rate of contraceptive use among poor and rural women, whether modern methods or traditional short term. In addition, the differences in the media interventions used may have differentiated these findings.<sup>1</sup>

The empathy dimension provides a mental response that makes respondents able to identify with the same feelings or thoughts as other groups. This of course involves the respondent's affection and cognition. BTL LARC media was considered very easy to understand, does not require much effort in remembering the media, and tends to be preferred by respondents. The persuasion dimension of BTL media in this study informs what LARC media can provide to increase or strengthen character in using LARC, so that media owners gain an understanding of the impact of advertising on consumer desires. This

dimension was strengthened to generate a desire to pay attention to BTL media, respondents' trust in the media, and an attitude of acknowledging that the media presented was true. As for the impact dimension, it was assessed that the media had provided additional information about LARC, and had a unique appearance, so that respondents were interested in the promotion being conveyed. The last dimension of the BTL LARC media was communicative, it was stated that the media was very easy to remember, easy to understand, and gives a special impression after the FAC was given media information.<sup>12</sup> In line with Suryaningsih's study, the LARC media gave a strong impression and understanding on FAC.<sup>13</sup>

The four dimensions evaluated in this study may be influenced by education level. A person's level of education is often associated with that person's ability to accept the information that eventually becomes knowledge. A person's educational profile is also associated with the existence of formal exposure to various knowledge including knowledge related to health, especially when it comes to education itself. Thus, the person will find it easier to recall memories that have been studied or perform cognitive activities to relate phenomena that have been studied with each other, especially when receiving the same or similar material as the submitted material during counseling. However, education is also sometimes found not to have an effect on attitudes and health behavior.<sup>10</sup>

**Tabel 3. Differences in the effectiveness of BTL media in urban and rural**

	Booklet				Leaflet				Flip Sheet			
	E	P	D	K	E	P	D	K	E	P	D	K
Urban	12 (6;15)	12 (6;15)	12 (6;15)	12 (6;15)	12 (9;15)	12 (9;15)	12 (9;15)	12 (9;15)	12 (6;15)	12 (6;15)	12 (7;15)	12 (7;15)
Rural	12 (12;15)	11 (10;14)	12 (11;15)	12 (11;15)	12 (12;15)	11 (10;14)	12 (11;15)	12 (11;15)	12 (12;15)	11 (10;14)	12 (11;15)	12 (11;15)
p	0,000*	0,364	0,000*	0,000*	0,000*	0,324	0,000*	0,000*	0,000*	0,626	0,000*	0,000*

\*Significant level at  $p < 0,05$

The LARC method is considered a suitable contraceptive for younger women, especially married women who have a higher chance of using the LARC method. Similar reasons are cited above can be developed for this finding. In particular, this could be due to the desire to have more Children tend to be lower in married women compared to unmarried women. Unmarried women can also adopt appropriate long-term reversible methods,

however Fear of side effects such as infertility or delay in conceiving can prevent many of them from using the LARC method.<sup>1</sup>

The limitation of this study was not been able to explain causally the effectiveness of BTL media on FAC's decision and interest in using LARC, where interest in using it was only 5% of FAC rural and 24.71% urban. In the future, it is hoped that studies will examine the

influence of BTL media on LARC interest and its impact on the number of parities in FAC.

Media has a significant relationship in the selection of LARC although in multivariate analysis, this variable becomes a confounding variable with a p value of 0.99. Andhayani et al. explained that receiving information about family planning had a significant effect on the choice of contraceptive type in female respondents aged 20-39 years. While Speizer et al. said that the current demand for modern contraceptives is strongly influenced by communication outside the home, local radio programs, slogans and print media and television programs. Utilization of print media in providing information about contraception and family planning through banners, posters, leaflets, brochures distributed to the public when mobile services are carried out by the government or by officers can increase public knowledge about various contraceptive methods, their effectiveness and side effects that can be caused by contraception. as well as various other family planning information so that people can choose contraceptive methods according to their needs and desires.<sup>14</sup>

## CONCLUSION

The effectiveness of BTL media has a significant difference between urban and rural areas in terms of empathy, impact, and communicative dimensions. Where the highest score was in rural. Although, there was no evidence of its influence on its interest. Therefore, future studies are needed to examine the effect of BTL media on LARC interest and its impact on the number of parities in FAC

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## REFERENCES

1. Adedini SA, Omisakin OA, Somefun OD. Trends, patterns and determinants of long-acting reversible methods of contraception among women in sub-Saharan Africa. *PLoS One*. 2019;14(6):e0217574.
2. Finer LB, Zolna MR. Declines in unintended pregnancy in the United States, 2008–2011. *New England journal of medicine*. 2016;374(9):843–52.
3. Prescott GM, Matthews CM. Long-acting reversible contraception: a review in special populations. *Pharmacotherapy: The Journal of Human Pharmacology and Drug Therapy*. 2014;34(1):46–59.
4. Indonesia KR. Profil Kesehatan Indonesia Tahun 2017. 2017;
5. Kependudukan B, Keluarga DAN, Nasional B. RENCANA STRATEGI. BKKBN; 2015.
6. Mulianda RT, Gultom DY. Pengaruh Pemberian Konseling KB terhadap Pemilihan Kontrasepsi Jangka Panjang (MKJP) di Kelurahan Belawan Bahagia Tahun 2018. *Jurnal Ilmiah Kebidanan Imelda*. 2019;5(2):55–8.
7. Wowiling GJ. Komunikasi Informasi dan Edukasi (KIE) sebagai Bentuk Sosialisasi Program Keluarga Berencana (KB) di Kelurahan Tingkulu Kecamatan Wanea Manado. *ACTA DIURNA KOMUNIKASI*. 2015;4(1).
8. Hutabarat DS, Nyorong M, Asriwati A. Efektivitas Komunikasi Informasi Dan Edukasi Dengan Metode Ceramah Dan Media Leaflet Terhadap Pengambilan Keputusan Pasangan Usia Subur (Pus) Dalam Memilih Alat Kontrasepsi Dipuskesmas Namotransi Kabupaten Langkat. *Miracle Journal*. 2022;2(1):116–27.
9. Kusmiwiyati A. Pengaruh Penggunaan Alat Bantu Pengambilan Keputusan Ber-KB (ABPK) terhadap Pemilihan Metode Kontrasepsi Jangka Panjang (MKJP). *Jurnal Kesehatan Ibu Dan Anak (Mother and Child Medical Science Journal)*. 2018;3(2):1–11.
10. Sastrawan S, Bahrudin L. Efektivitas Media Lembar Balik Sebagai Media Penyuluhan pada Sasaran Ibu Balita Berpendidikan Rendah sampai Sedang. *Jurnal Penelitian Kesehatan" SUARA FORIKES"(Journal of Health Research" Forikes Voice"*). 2021; 12:47–52.
11. Dida S, Lukman S, Sono S, Herison F, Priyatna CC, Zaidan AR, et al. Pemetaan Prilaku Penggunaan Media Informasi Dalam Mengakses Informasi Kesehatan Reproduksi Di Kalangan Pelajar Di Jawa Barat. *Jurnal Keluarga Berencana*. 2019;4(2):32–46.
12. Putri KYS, Sutjipto VW, Isyanto SB. Representation of Media Literacy of Health Communication Dimensions in Indonesia. In: *International Conference of Communication Science Research (ICCSR 2018)*. Atlantis Press; 2018. p. 33–6.
13. Suryaningsih IB, Nugraha KSW. Epic Model: Efektivitas Iklan Destinasi Wisata Kabupaten Banyuwangi Terhadap Minat Berkunjung Ulang Wisatawan Domestik. *Managament Insight: Jurnal Ilmiah Manajemen*. 2018;13(2):8–16.

14. Weni L, Yuwono M, Idris H. Determinan Pemilihan Metode Kontrasepsi Jangka Panjang Pada Akseptor KB Aktif di

Puskesmas Pedamaran. Contagion: Scientific Periodical Journal of Public Health and Coastal Health. 2019;1(01).