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## **RESEARCH ARTICLE**

# Effect of Intensive Counselling Training on Participation of clients in Longacting Reversible Contraceptives (LARCs)

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#### Abstract:

#### Background:

Family planning (FP) is a pillar of Safe Motherhood. The FP program aims to avoid unwanted pregnancies or births caused by LARCs. However, the percentage of LARCs usage in Indonesia in 2017 was still far from the target of 14% per 21.7%. This was influenced by Information Education and Communication provided by healthcare workers, counselling mechanisms, and mother's knowledge. This study aims to find a new counselling training technique that may improve the counselling skills of health workers and provide a better outcome (clients' knowledge and attitude).

#### Methodology:

Phase one, a qualitative approach by conducting focus group discussions (FGD) and in-depth interviews with midwives and clients as the basis for making intensive counselling modules. Phase two, quantitative approach to healthcare workers using a t-paired group analysis test. Phase three, analysis using the unpaired t-test for clients.

#### Results:

This study was conducted using mixed methods, with a sequential exploratory model consisting of three research stages. The qualitative phase showed that the appropriate LARC-intensive counselling training model was two days, eight hours each, emphasizing the communication technique. A significant difference was found in the counselling competency of healthcare workers before and after training (p < 0.001). Interest in LARCs after receiving counselling (intensive or others) also showed significant differences (p < 0.001).

#### Conclusion:

The LARCs intensive counselling training module affects the competency of counselling skills and increases the participation of clients

Keywords: Counselling, Family planning, Long-acting reversible contraceptives, FGD, Motherhood, Healthcare workers.

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#### **1. INTRODUCTION**

Indonesia is a country that has implemented maternal and child health (MCH) policies since the world health organization (WHO) launched the Safe Motherhood Initiative in 1987 [1]. Safe Motherhood is an effort to reduce maternal mortality and improve the welfare or safety of mothers. There are four components in Safe Motherhood, family planning, good quality antenatal care, clean and safe delivery, and essential obstetric services [2]. MMR in 1991–2020 has fluctuated over the past years. In 2020, MMP decreased to 189 per 100,000 live births from 305 per 100,000 live births in 2015 and 359 per 100,000 live births in 2012 [3]. Family planning is an important intervention to reduce the MMR in couples of childbearing age. Approximately 20% of unintended pregnancies occur in Indonesia. Family planning programs aim to avoid unwanted pregnancies or births, thereby reducing the rate of unsafe abortions and costs [4]. The strategy given in family planning is the use of long-term contraceptive methods (LARCs) with high effectiveness to delay, space out pregnancies, and stop fertility, which is used in the long term compared to non-LARCs methods. It is also more cost effective [5]. The drop-out rate of non- LARCs methods continues to increase from 4.2% to 4.5% [6, 7].

The use of LARCs, which is still low, is influenced by several factors, including educational information and communication (IEC) of health workers who are not good at recommending LARCs, counselling done not according to

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standard procedures, and knowledge about LARCs is still low [8, 9]. Increased knowledge of prospective LARCs users is influenced by the quality of family planning contraceptive method counselling conducted by trained health workers. An important component of counselling is education, which aims to provide information to clients before making decisions about the contraceptive method to use [10 - 13].

The percentage of primary health facilities that have implemented Maternal and Neonatal Health and Family Planning services is 97.5%, but only 58% of health workers who have received family planning training and 32.2% of primary health facilities have sufficient resources in the family planning program. The adequacy of these resources includes service competence, availability of officers at the Primary Health Facility, availability of guidelines and standard operating procedures (SOP) and technical guidance [14].

Appropriate clinical training methods are needed for health workers, especially for the installation of LARCs contraceptive devices [15]. Since 2003, the National Clinical Training Network in Reproductive Health, in collaboration with the Johns Hopkins Program for International Education in Gynecology and Obstetrics (JHPIEGO), has held contraceptive technology update (CTU) training based on competency. CTU training was carried out for five days with the transfer of knowledge and skills of the latest contraceptive services. In the training, various methods of contraception were taught, but no specific methods were emphasized. The time provided for counselling skills in intrauterine-post-placental contraceptive training (IUD-PP) was only 90 minutes or 6.2% of the total time (24 hours of training), and in CTU training, counselling materials and practices were provided for 90 minutes or 4.7% of the total time (32 hours of training) [16, 17].

The objective of this study was to improve healthcare workers' competency in LARCs counselling and client participation by producing a counselling training module specifically for LARCs.

#### 2. MATERIALS AND METHODS

This study was conducted using mixed methods to specifically determine "why", and assess the improvements established after the intervention, with a sequential exploratory model consisting of three research stages. The first research phase used a qualitative method, collecting data through Focus Group Discussions (FGD) and in-depth interviews with health workers and potential acceptors. Phase two and phase three were done using quantitative methods. The second phase of the research used quasi-experiments with health workers as subjects, and the third phase used pure experiments with prospective acceptors in an analytic and interventional study to determine the need for counselling training to improve healthcare competency in counselling and improve the participation of clients.

The first phase of the FGD study for health workers and prospective recipients was carried out by the author herself as the Obstetrics and Gynaecology Social Consultant at the National Central General Hospital Dr. Cipto Mangunkusumo (RSCM). Sessions were conducted face-to-face on a different day for healthcare workers and clients. In the first phase, purposive sampling was used by The Chief of Indonesian Midwives Association. This was followed by the second and third phases at some private midwives clinics, with the population of healthcare workers found in RSCM and Private Midwives Clinics for phase two, and all prospective contraceptive users in Jakarta for phase three, by consecutive sampling. No audio or video recordings were made during the sessions. Each session was done for 2-3 hours.

The profile of healthcare workers included in phase one was a midwife, aged > 40 years, active in providing family planning services at RSCM and/or Private Clinics, active in providing family planning counselling at RSCM and/or Private Clinics, has received CTU/AKDR-PP/other family planning seminars and/or training, and willing to participate in research. If none of the criteria above met the minimum length of practice (minimum 5 years), then the subject was excluded.

The profile of healthcare workers included in phase one for training was as follows: a midwife, active in providing family planning services at Private Clinics, active in providing family planning counselling at Private Clinics, has more than 20 patients per day, with more than five patients for contraception per day, has and has not received CTU/AKDR-PP/other family planning seminars and/or training, has not received any training for contraceptive counselling, is willing to participate in training, and is willing to participate in all of the intensive training courses for LARCs. Subjects were then excluded if they did not participate in any training services in Private Clinics.

The profile of prospective acceptors included in phase one was women with a history of normal menstrual cycles, duration, and frequency, women of childbearing age (15-49 years), currently performing antenatal care (ANC) or during the postpartum period before returning from a health care facility, are currently not pregnant, have a desire to use family planning, and are willing to participate in research. Exclusion criteria included contraindications for receiving LARCs.

The inclusion criteria for the second and third phases were the same as those for the healthcare workers and prospective acceptors in phase one.

First, the analysis of the FGD and WM is to form a matrix according to the material discussed during the FGD and WM, and then carried out an analysis to produce conclusions that are used as material for the LARCs intensive Counselling training module. The participants in the first phase were based on the criteria listed above. Fifteen midwives were chosen by the chief of the Indonesian Midwives Association to join the FGD and provide input for our research.

This was followed by the second phase, comparing the baseline and healthcare workers' competencies. Baseline comparisons between the groups were assessed descriptively. Categorical variables are presented as amounts and percentages. Numerical variables with a normal distribution are presented as means and standard deviations. Numerical variables with non-normal distributions are presented as medians (minimum–maximum). Comparison of the competence of counselling skills between health workers before and after intensive Counselling training for Health Workers on the participation of prospective LARCs users was tested using the Paired T-Test if the data distribution was normal. If the data distribution was not normal, the Wilcoxon test was used, with a 5% significance limit. If there were

variables that were not comparable, the researcher controlled these variables using an Ancova analysis. The subject involved in this phase were same as that in the first phase.

The third phase was performed using the same cycle as that of the second phase, which was first compared to the baseline and continued by comparing the score of interest of the clients in receiving LARCs. Baseline comparisons between groups were assessed descriptively. Categorical variables are presented in amounts and percentages. Numerical variables with normal distribution are presented in the mean and standard deviation. Numerical variables with non-normal distribution are presented in the median (minimum–maximum). The comparison of interest scores between prospective

acceptors was tested using the unpaired t-test, if the distribution of data was normal. If the data distribution was not normal, the Mann-Whitney test was used. 5% significance limit. If there were baseline variables that were not comparable, the researcher controlled for them. Ancova analysis was used for this analysis.

The subjects' data were kept confidential and processed by statistical analysis. This study was approved by the Department of Obstetrics and Gynaecology and the Ethics Committee. The data of the subjects involved in the third phase were collected by consecutive sampling. A total of 150 clients, with 50 clients dropped out due to a non-suitable age group, not coming to the appointed location, and other reasons. A total of 100 clients were suitable and willing to participate in the study.

Midwives Statements	Coding	Components in the LARCs Intensive Counselling Training Module				
Complaints of prospective acceptors against LARCs						
<ol> <li>IUD, it hinders from working and i am not able to have a pleasant intercourse, there's something obstructing</li> <li>Minimal LARCs, long period of menses, feels that there's something stinging, can't work hard</li> </ol>	Knowledge	<ol> <li>Focus on LARCs and correcting misunderstandings</li> <li>Integrated in the study guide, checklist number 14 and study guide</li> </ol>				
Contraceptive interest in prospective acceptors						
1. Injection 2. 3 months injection 3. 1 month injection	Knowledge	<ol> <li>Training material for the LARCs method chapter which explains the effectiveness of LARCs and non-LARCs</li> <li>The effectiveness of LARCs is included in the study guide, checklist numbers 10c, 11c, 12c and flipcharts</li> </ol>				
Chall	enges faced dur	ing LARCs counselling				
1. The position of the acceptor candidate must be in lithotomy	Knowledge	<ol> <li>Explain the installation location of the LARCs method</li> <li>Integrated in study guides, checklists for numbers 10d, 11d, and flipcharts</li> </ol>				
LARC	s intensive coun	selling training material				
1. Contraceptive methods (KB devices) 2. Installation steps 3. CLOP diagram	Knowledge	<ol> <li>LARCs intensive counselling training material which explains the LARCs method</li> <li>Integrated in the training schedule in the reference book, participant guide and trainer's handbook</li> </ol>				
Ensuring understanding of prospective acceptors						
<ol> <li>Using the patient's language</li> <li>Recognize which tribes/race the acceptor candidates are from, using their language</li> </ol>	Attitude	1. Integrated in the study guide, checklist number 19c and flipchart				
Responding to constraints and concerns about LARCs						
Approa	ch in counsellin	g to prospective acceptors				
<ol> <li>Include your husband in counselling</li> <li>Explanation of the types of KB MKJP with pictures and props</li> </ol>	Attitude	<ol> <li>There is informed consent that includes the husband</li> <li>Integrated in the study guide, checklist numbers 10,11, 12, and 19 and illustrated on a flipchart</li> </ol>				
The atti	tude of midwive	s in providing counselling				
<ol> <li>Do: smile, greet, greet, touch, and be polite</li> <li>Be an example for patients</li> </ol>	Attitude	1. Integrated in the study guide and the Attitude component checklist and number 1				
	Counselling	infrastructure				
<ol> <li>The place is comfortable</li> <li>There is a special counselling room</li> <li>Given a partition</li> <li>Props are provided</li> <li>Use assistive devices, model the anatomy of the uterus</li> </ol>	Infrastructure	1. Integrated in the study guide, checklist numbers 1, 19a, 19b, and flipchart				
Suggestions	for intensive co	unselling training for LARCs				
<ol> <li>Prioritize those with a lot of patients</li> <li>2 days of training is sufficient, considering that many midwives work at PMB</li> </ol>	Training Model	<ol> <li>Implementation of LARCs intensive counselling training</li> <li>Integrated in the training schedule in the participant's handbook and trainer's handbook</li> </ol>				

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#### **3. RESULTS**

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#### 3.1. First Phase: Preparation of MKJP KB Intensive **Counselling Training Module**

The Focus Group Discussion (FGD) was attended by 12 midwives, each of which consisted of six midwives in the first and second FGD. The age range of the FGD participants was 45-68 years, with more than 15 years of working time. All FGD participants were still active in providing family planning services, both in primary and advanced healthcare facilities and PMB, and had participated in family planning seminars and/or training.

At this stage, researchers have also conducted FGDs for prospective acceptors. All FGD participants were still active in providing family planning services, both in primary and

advanced healthcare facilities and PMB, and had participated in family planning seminars and/or training. FGD to prospective acceptors was performed to assess the needs of prospective acceptors for LARC counselling that is suitable for the needs of prospective acceptors and can be well received by prospective acceptors. The findings of the FGD and in-depth interviews with prospective users became the material in the development of the LARC intensive counselling training module.

The results at the qualitative stage showed that the appropriate LARC intensive counselling training model was to cover two days with a duration of seven hours each day, with a point of communication technique material when counselling.

Statement of Prospective Acceptors	Coding	Components in the LARCs Intensive Counselling Training Module				
Knowledge about LARCs						
1. Spirals 2. Implant 3. Sterile	Knowledge	<ol> <li>Focus on the ability to explore the knowledge of prospective acceptors</li> <li>Integrated in the study guide, checklist number 8 and flipchart</li> </ol>				
Complaints using LARCs						
<ol> <li>Spirals, lots of menstruation, may be dislodged, threads coming out, sore</li> <li>Afraid to use it because I heard from other people</li> </ol>	Knowledge	<ol> <li>Explain specifically about LARCs and correct misunderstandings</li> <li>Integrated in the study guide, checklist number 14 and flipchart</li> </ol>				
F	amily Planning Co	ounselling Experience				
Have been counselled, said she was injected with a ot of analgesic, takes a long time to heal, long term effect, longer menstrual pain. Decided not to get it and went home	Knowledge	<ol> <li>LARCs material explaining the side effects of KB MKJP</li> <li>Integrated in the study guide, checklist numbers 10, 11, and 12 and flipcharts</li> </ol>				
The in	nformation needed	l for each LARCs method				
1. Benefit 2. Information on side effects 3. Risk 4. Straighten the myths heard	Knowledge	Integrated in the study guide, checklist numbers 10, 11, and 12 and flipcharts				
Maximum duration of family planning counselling						
An hour	Counselling Time	<ol> <li>The duration of the LARCs intensive counselling</li> <li>Integrated in the reference book sub-chapter duration of LARCs intensive counselling</li> </ol>				
Family planning Counselling Time						
1. During pregnancy, 6 months 2. Born	Counselling Time	<ol> <li>The duration of the LARCs intensive counselling</li> <li>Integrated in the reference book sub-chapter duration of LARCs intensive counselling</li> </ol>				
Things	that make potentia	al acceptors feel comfortable				
<ol> <li>Clean and comfortable room</li> <li>Closed and soundproof room</li> </ol>	Infrastructure	1. Integrated in the study guide, checklist numbers 1 and 4 as well as flipcharts				
	Attitude	of Midwives				
1. Friendly 2. Understandable	Attitude	1. Integrated in the study guide, checklist numbers 19 as well as flipcharts				
Appearance of Midwives						
<ol> <li>Use the official clothes</li> <li>Be tidy and neat, so we can feel comfortable</li> </ol>	Attitude	1. Integrated in the study guide, checklist numbers 18 as well as flipcharts				
	Family planning	counselling position				
Face to face position, so we can look at the expression more clearly	Attitude	1. Integrated in the study guide, checklist numbers 20 as well as flipcharts				

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Table 3. Evaluation of LAI	RCs intensive	counselling training.
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No.	Components			
1.	. The initial training questionnaire helped me study more effectively			
2.	. The mid-training questionnaire helped me study more effectively			
3.	. The role play session in the counselling session really helped my learning process			
4.	There is sufficient time for counselling practice	91,3%		
5.	. Learning videos help me master counselling procedures and have confidence in carrying out procedures to prospective acceptors			
6.	The practice of using models and simulations helped me to master counselling procedures and to be confident in carrying out procedures for prospective acceptors	93,3%		
7.	After this training I was able to provide LARCs intensive family planning counselling services to prospective acceptors at my place of work/at a midwife's independent practice.	92%		
8.	The methods and approaches and skills in this training have made me feel competent in providing quality counselling services	84,7%		
9.	The LARCs intensive counselling training for two days was enough to increase my knowledge and skills in providing LARCs intensive counselling services	39,3%		

Table 4. Knowledge comparison of intensive counselling LARCs.

Before Training 15	$49,73 \pm 7,74$	27 67 (22 68 22 65)	< 0.001
After Training 15	$72,40 \pm 5,56$	27,67 (22,68–32,65)	< 0,001

Note: \* Paired-13 (data normally distributed, paired, numerical)

Based on Kirkpatrick's third evaluation, the researcher developed a LARC intensive counselling skills competency assessment instrument made by researchers based on a literature review, reviewing existing competency assessment instruments, processing data obtained through the FGD process on health workers and prospective acceptors, in-depth interviews with prospective acceptors, discussions and evaluations with experts, discussions with training facilitators, and training participants (Tables 1 and 2).

The module was conducted by conducting FGD and WM for health workers and prospective acceptors, discussions with module maker experts, counselling experts, residents of Obstetrics and Gynaecology, and health workers who work at RSCM, testing the validity and reliability of training questionnaires, trial and training for residents of Obstetrics and Gynaecology, and health workers who work at RSCM so that the MKJP intensive family planning counselling training module is compiled and made in flipchart form.

Competency assessment instruments were prepared based on a literature review, review of instruments, processing of FGD and WM data, discussions and evaluations with experts, discussions with training facilitators, and discussions with training participants. The following checklist instrument was used to assess the competency of LARC-intensive counselling skills. The preparation and development of the modules resulted in three modules: the Reference Book, the Trainer's Handbook, and the Participant's handbook, and Flipchart tools.

LARCs intensive counselling training was conducted for two days, consisting of six sessions, containing materials that focused on LARCs materials, LARCs intensive counselling materials, LARCs intensive counselling on models, and LARCs intensive counselling practices on standard patients.

The highest rating aspect was the mid-training questionnaire (96%), whereas the lowest assessment aspect was the two days of training (39.3%). The following is an evaluation table for the LARCs family planning intensive counselling training (Table **3**).

#### 3.2. Second Phase: Learning and Behavioural Evaluation

Counselling training is performed using a humanistic approach. The materials given in the counselling intensive training of the LARC method were also performed with interactive lectures, discussions, and simulations on the model and practice in standard patients. Interactive lectures and open discussions can improve participants' knowledge. Two days of counselling in Nigeria showed positive impacts on the knowledge of health workers and quality of counselling services.

#### Table 5. Comparison of intensive counselling skills competency LARCs.

LARCs Intensive Counselling Skills Competency	n	Mean $\pm$ s.b	CI 95%	p-value
Before Training	15	$46,44 \pm 8,48$	42.05 (27.21.46.70)	< 0.001
After Training	15	88,49 ± 5,38	42,05 (37,31–46,79)	< 0,001

Note: \* Paired-t test (data normally distributed, paired, numerical).

Variable	df	F	p-value
Corrected model	3	26,87	< 0,001
Acquired Counselling	1	156,28	< 0,001
Midwives Aged Category	1	8,65	0,08
Length of Practice Category	1	0,66	0,63

Table 6. Comparison of LARCs interest scores for acceptor candidates.

Note: \*Ancova Test.

This training has proven to be able to increase the knowledge of health workers and the competence of health workers' counselling skills. This increase is statistically significant. The average skill score before training was 46,44 and the average score after training was 87,63, an increase of 40,59 (p<0,001). This study found that health workers were easier to do the LARC family planning intensive counselling with 'SMARTS' method.

In this study, there was a significant difference in the average score of LARCs intensive counselling knowledge before and after training (Table 4).

In this study, there was a significant difference in the average competency score of LARCs intensive counselling before and after the training (Table 5).

#### 3.3. Third Phase: Result Evaluation

Intensive counselling refers to the humanistic approach and theory developed by Carl Rogers. A humanistic approach focuses on counseling prospective users, ehere we emphasized the importance of providing clients with unconditional positive regard, creating a safe and supportive environment for clients, we also emphasized empathy, openness and authenticity to foster a deeper connection with client. The interest score of prospective acceptors who received intensive LARC family planning counselling was higher than that of those who accepted other family planning counselling. There was an increase in the LARC family planning interest score for prospective users who received intensive counselling. This result was statistically significant. The Spearman correlation value was 0.767, indicating a positive direction. The higher the competency score, the higher is the interest score of the prospective LARC family planning acceptor. In line with Tumini's research, good counselling increases the success of family planning, makes clients use contraception longer, and reflects the quality of services provided.

In this study, there was a significant difference in the MKJP family planning interest score of prospective acceptors based on counselling, which was obtained after controlling for the midwife's age and practice category variables (Table 6).

#### CONCLUSION AND RECOMMENDATION

This study succeeded in finding a LARC family planning method in an intensive counselling training module that could improve the competence of health workers' counselling skills by increasing the participation of prospective users in the use of the LARC method itself.

This research can be developed through advanced training to examine the behaviour of users towards the use of the LARC

family planning method.

#### LIST OF ABBREVIATIONS

		10 11		
FP	=	Family	n	lanning

- **FGD** = Focus group discussions
- MCH = Maternal and child health
- LARCs = Long-term contraceptive methods
- **IEC** = Including educational information and communication
- **SOP** = Standard operating procedures
- MCH = maternal and child health

# ETHICS APPROVAL AND CONSENT TO PARTICIPATE

This study was approved by the Department of Obstetrics and Gynaecology and the Ethics Committee.

#### HUMAN AND ANIMAL RIGHTS

No animals were used in this research. All procedures performed in studies involving human participants were in accordance with the ethical standards of institutional and/or research committee and with the 1975 Declaration of Helsinki, as revised in 2013.

#### **CONSENT FOR PUBLICATION**

Informed consent was obtained from all participants.

#### STANDARDS OF REPORTING

COREQ guidelines were followed.

#### AVAILABILITY OF DATA AND MATERIALS

The authors confirm that the data supporting the findings of this research are available within the article.

#### FUNDING

None.

#### **CONFLICT OF INTEREST**

The author declares no conflict of interest financial or otherwise.

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Declared none.

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