

EMPOWERING WOMEN OF REPRODUCTIVE AGE THROUGH HEALTH EDUCATION ON LONG-TERM CONTRACEPTIVE METHODS IN TRAGIH VILLAGE, SAMPANG REGENCY

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Abstract

Long-term contraceptive methods (LTCM) are highly effective, yet their use in Indonesia remains below the national target, and many women of reproductive age (WRA) still rely on short-term methods such as injectables and pills. This community service activity aimed to improve WRA knowledge of LTCM in Tragih Village, Robatal District, Sampang Regency, East Java. A participatory educational approach was applied, consisting of coordination, preparation of educational media, interactive lectures, discussion, counseling, leaflet distribution, mentoring, and evaluation. Twenty-seven WRA participated, exceeding the minimum target of 25 (108%). Knowledge was measured with a pre-test and post-test, and satisfaction with a survey. The proportion of participants with good knowledge increased from 14.8% to 81.5%, while poor knowledge decreased from 33.3% to 0%. The mean knowledge score rose from 58.1 to 86.3 (an increase of 28.2 points, or 48.5%), and 25 of 27 participants (92.6%) improved. Nineteen participants (70.4%) were very satisfied and eight (29.6%) were satisfied, with a mean satisfaction score of 35.4 out of 40 (88.5%). Five of six output indicators were achieved. Health education combining lectures, discussion, counseling, and leaflets improved WRA knowledge and was well accepted; follow-up individual counseling and continued cadre involvement are recommended.

Keywords: community empowerment, contraception, health education, long-term contraceptive methods, women of reproductive age

INTRODUCTION

Family planning (FP) is a strategic effort to improve maternal and child health and to build quality families. It helps couples of reproductive age to regulate the number of children, birth spacing, and the timing of pregnancy according to their conditions and needs (Badan Kependudukan dan Keluarga Berencana Nasional [BKKBN], 2021; Kementerian Kesehatan Republik Indonesia [Kemenkes RI], 2020). One group of highly effective methods is the long-term contraceptive methods (LTCM; Metode Kontrasepsi Jangka Panjang, MKJP), which include the intrauterine device (IUD), implants, female sterilization (tubal ligation), and male sterilization (vasectomy) (BKKBN, 2024; World Health Organization [WHO], 2022).

Despite their effectiveness, LTCM use still faces challenges. The 2024 Family Data Update (Pemutakhiran Pendataan Keluarga) recorded national active LTCM use of 25.5%, below the 2024 target of 28.4%. In East Java Province, contraceptive use remains dominated by non-LTCM methods, particularly injectables (56.8%), followed by implants (11.5%), IUDs (9.7%), and female sterilization (4.0%) according to the 2024 provincial health profile. These figures show that LTCM utilization needs to be strengthened through better access to services and through communication, information, and education (IEC).

Tragih Village, Robatal District, Sampang Regency, was the focus of this activity. Initial observation and coordination with health cadres and local health workers showed that some women of reproductive age (WRA) had limited knowledge about the types of LTCM, their benefits, duration of use, insertion procedures, side effects, and ways of managing complaints. Some WRA also preferred injectables or pills because they were used to them and considered them easier to obtain. Access to family planning services is available through integrated health posts (Posyandu), village health posts (Polindes), and community health centers (Puskesmas), but the use of LTCM remained low. The problems identified among the target group included limited knowledge of the definition, types, benefits, and effectiveness of LTCM; myths and inaccurate perceptions; low interest in LTCM; limited understanding of birth spacing and the prevention of unplanned pregnancy; limited access to comprehensive reproductive health

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information; limited involvement of husbands and families in contraceptive decision-making; limited easy-to-understand educational media; and low awareness of routine consultation with health workers. Health education is a form of professional community midwifery practice that can raise knowledge and awareness (Prawirohardjo, 2020). Through education on LTCM, midwives can provide comprehensive information so that WRA understand the available options and consult health workers before choosing a method.

Therefore, this activity aimed to improve the knowledge of WRA about LTCM in Tragih Village and to strengthen the role of health cadres as educators. The problem-solving plan used a participatory community empowerment approach that combined interactive lectures, discussion, counseling, leaflets, and mentoring, followed by evaluation of knowledge and participant satisfaction.

LITERATURE REVIEW

LTCM provide protection against pregnancy over a long period and do not require daily use or use at every sexual intercourse. The IUD and implants are the most commonly used types and are reversible, meaning that fertility can return after the device is removed, whereas female and male sterilization are permanent surgical methods (BKKBN, 2024; WHO, 2022, 2023). Because LTCM require insertion or a procedure performed by trained health workers, method choice should be preceded by counseling and health screening, and users need to attend follow-up visits as advised (Affandi et al., 2021).

Knowledge is an important predisposing factor that shapes health behavior (Notoatmodjo, 2021). In the context of contraception, limited knowledge, myths about infertility and side effects, a preference for familiar short-term methods, and weak family support can discourage women from considering LTCM. Health education delivered through counseling and appropriate media allows women to compare the strengths and limitations of each method and to discuss their choice with a midwife or physician (Affandi et al., 2021). Earlier Indonesian studies have reported that health education on LTCM improved the knowledge of WRA (Sari et al., 2022; Wulandari et al., 2023).

Community-based education is expected to be more sustainable when it is participatory and involves people who are trusted locally. Health cadres, village governments, and community leaders can help mobilize participants, support education, and disseminate information after the activity. However, locally grounded evidence on cadre-supported LTCM education that reports both changes in knowledge and participant satisfaction is still needed, particularly for villages where short-term methods dominate, such as Tragih. This activity addresses that need by describing the implementation, outcomes, and lessons learned from a community education program on LTCM for WRA.

METHOD

The activity used a participatory community empowerment approach that emphasized the active involvement of WRA, health cadres, and community leaders as the main actors. It was carried out in Tragih Village, Robatal District, Sampang Regency, East Java, over a period of one month. The participants were WRA who were invited through health cadres, with a minimum target of 25 participants. In total, 27 WRA aged 20–49 years took part. All were married and active as couples of reproductive age; their education ranged from primary school to college, and their occupations included homemakers, farmers, traders, entrepreneurs, and private employees.

The activity consisted of five stages. (1) Preparation: coordination and permits with the village government, health cadres, and health workers; a preliminary survey; problem identification; preparation of the leaflet, presentation slides, and questionnaires; and determination of participants. (2) Implementation: carried out in one day through a pre-test, health education on LTCM, discussion, question and answer, counseling, leaflet distribution, and a post-test. (3) Mentoring: participants were given the opportunity to raise questions, concerns, and experiences, and those who needed further information were referred to a midwife or health worker. (4) Evaluation: process evaluation covered attendance, participation, cadre involvement, punctuality, and quality of delivery, while outcome evaluation used the pre-test, post-test, and a satisfaction survey. (5) Reflection and sustainability: a joint reflection with WRA, cadres, and health workers to formulate follow-up education. The schedule is shown in Table 1.

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Table 1. Planned schedule of activities

No	Activity	Timing
1	Preliminary survey and permits	Week 1
2	Preparation of educational materials and media	Weeks 1–2
3	Invitations and confirmation of participants	Week 2
4	Education, pre-test, discussion, counseling, and post-test	Week 3 (1 day)
5	Mentoring and consultation	Week 4
6	Data processing and evaluation	Week 4
7	Reflection with cadres	Week 4
8	Report preparation	Weeks 4–5

Knowledge was measured with a questionnaire of 25 true/false statements covering family planning, LTCM, types of LTCM, benefits, effectiveness, strengths and limitations, side effects, and considerations in choosing a method. The score was calculated as the number of correct answers divided by 25 and multiplied by 100, and was categorized as good (76–100), fair (56–75), or poor (≤ 55). The same instrument was used as pre-test and post-test. Satisfaction was measured with a 10-item survey on a four-point scale (4 = very satisfied to 1 = not satisfied; maximum score 40). The satisfaction percentage was calculated as the obtained score divided by 40, and was categorized as very satisfied (81–100%), satisfied (61–80%), fairly satisfied (41–60%), or less satisfied ($\leq 40\%$).

Data were analyzed descriptively using frequencies, percentages, and mean scores. A participant was considered to have improved when the post-test score was higher than the pre-test score. The success indicators were (1) at least 80% of participants show improved knowledge, (2) at least 80% of participants can explain the benefits, types, and effectiveness of LTCM, (3) educational media are used by cadres and health workers, (4) coordination among cadres, the community, and health workers is established, and (5) an activity report and scientific article are prepared. The partners contributed as follows: WRA as the main beneficiaries; health cadres in mobilization, data collection, and mentoring; the village government and community leaders in social support and facilities; midwives and health workers as resource persons and counselors; and the educational institution in academic and technical support.

RESULTS AND DISCUSSION

Implementation and Participation

All planned stages in Table 1 were carried out. The education, pre-test, discussion, counseling, and post-test took place in a single day in the third week and were attended by 27 WRA and supported by health cadres. The number of participants exceeded the minimum target of 25, so participation reached 108% of the target. Cadres helped to mobilize participants, deliver education, and mentor WRA. Most participants reported using injectables or pills at the time of the activity.

Improvement in Knowledge

Table 2 and Figure 1 show the change in knowledge levels. The number of participants with good knowledge increased from 4 (14.8%) to 22 (81.5%). Participants with fair knowledge decreased from 14 (51.9%) to 5 (18.5%), and those with poor knowledge decreased from 9 (33.3%) to none.

Table 2. Knowledge levels of participants before and after education (N = 27)

Category	Pre-test n	Pre-test %	Post-test n	Post-test %
Good (76–100)	4	14.8	22	81.5
Fair (56–75)	14	51.9	5	18.5
Poor (≤ 55)	9	33.3	0	0.0
Total	27	100	27	100

The mean knowledge score increased from 58.1 in the pre-test to 86.3 in the post-test, an increase of 28.2 points or about 48.5%. Twenty-five of 27 participants (92.6%) improved their score, which exceeds the minimum indicator of 80%. The two participants whose scores did not change had good knowledge at baseline (scores of 76

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and 78). The gain differed by baseline level: participants with poor baseline knowledge gained 51.4 points on average, those with fair baseline knowledge gained 19.9 points, and those with good baseline knowledge gained 5.0 points.

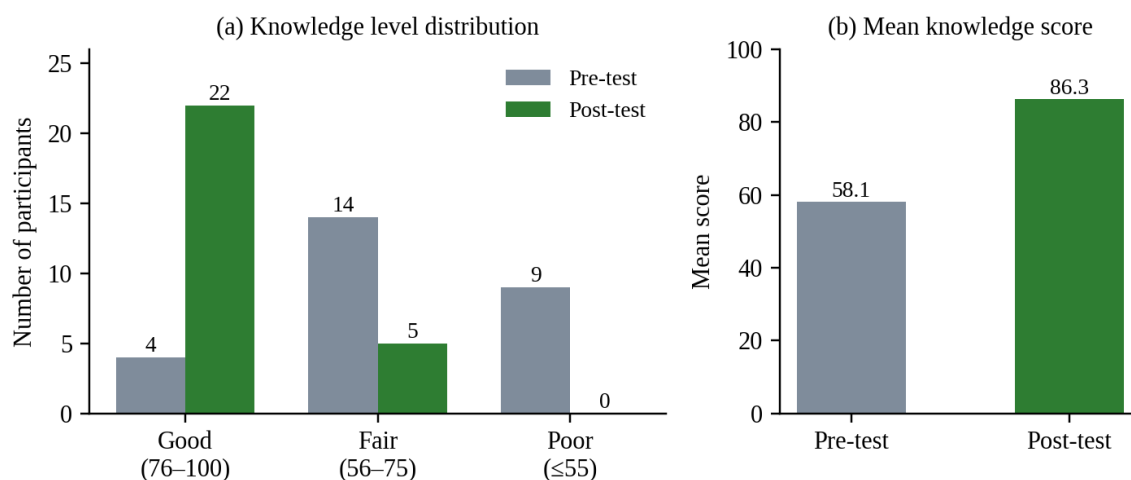


Figure 1. Knowledge level distribution (a) and mean knowledge score (b) of participants before and after education

Participant Satisfaction

The satisfaction survey showed that the activity was well received (Table 3). Nineteen participants (70.4%) were very satisfied and eight (29.6%) were satisfied, and none were fairly or less satisfied. The mean satisfaction score was 35.4 out of a maximum of 40, or 88.5%. The aspects rated well included the clarity of the material, the ability of the presenter, the usefulness of the leaflet, and the opportunity to discuss. Some participants hoped for a longer discussion and question-and-answer session.

Table 3. Participant satisfaction (N = 27)

Satisfaction category	n	%
Very satisfied (81–100%)	19	70.4
Satisfied (61–80%)	8	29.6
Fairly satisfied (41–60%)	0	0.0
Less satisfied (≤40%)	0	0.0
Total	27	100

Achievement of Outputs

Five of the six main output indicators were achieved, while the scientific article was still in progress at the time of the report (Table 4).

Table 4. Targets and realization of activity outputs

No	Indicator	Target	Realization	Status
1	Number of participants	≥25	27 WRA (108% of target), assisted by cadres	Achieved
2	Participants with improved knowledge	≥80%	92.6% (25 of 27); mean score 58.1 to 86.3	Achieved
3	Participants able to explain the main material	≥80%	24 of 27 participants (88.9%)	Achieved
4	Educational media on LTCM	Available and used	Leaflet and banner available and used	Achieved
5	Awareness and commitment of WRA	Established	Joint commitment of WRA, cadres, and health workers	Achieved
6	Activity report and draft scientific article	Prepared	Report prepared; article draft in preparation	In progress

Discussion

The results show that health education on LTCM improved the knowledge of WRA in Tragih Village. The mean score rose by 28.2 points, and the number of participants with good knowledge rose from 4 to 22. This finding is in line with earlier studies that reported improved WRA knowledge after health education on long-term contraception (Sari et al., 2022; Wulandari et al., 2023). The improvement is likely related to the combination of interactive lectures, discussion, question and answer, counseling, and leaflets, which helped participants understand the definition of LTCM, its types, benefits, effectiveness, strengths and limitations, side effects, and considerations in choosing a method. Because knowledge is a predisposing factor for health behavior (Notoatmodjo, 2021), this improvement is an important first step toward informed contraceptive decisions.

The largest gains occurred among participants who started with poor knowledge, indicating that the systematic, needs-based delivery of information helped to narrow the knowledge gap. The small change among the two participants with good baseline knowledge is expected, since their scores were already high. At the same time, five participants (18.5%) remained in the fair category after education, which shows that improvement was not uniform. These participants need more personal mentoring and counseling according to their needs.

The high participation and satisfaction indicate that the activity was acceptable to the community. Health cadres supported the sustainability of reproductive health information and family planning counseling, and the leaflet and banner can be reused by cadres and health workers. Several challenges were encountered. Some WRA were busy with work and household duties and could not arrive on time, so the schedule was coordinated with cadres. Some participants had limited understanding of LTCM terms, which was addressed with simple language, concrete examples, and repeated explanations. Concerns about the side effects and safety of the IUD and implants, as well as myths about LTCM, were clarified through counseling and question and answer, and participants were directed to consult health workers. Because question-and-answer time was limited, unanswered questions were followed up through individual counseling, and participants who were hesitant about their choice were given objective information and encouraged to consider their health condition, needs, and reproductive plans.

Several limitations should be noted. The evaluation used a single-group pre-test and post-test design without a control group, the post-test was given immediately after the education, and the analysis was descriptive. The activity measured knowledge and satisfaction but not actual uptake of LTCM, so the effect on contraceptive use is not yet known. Future activities could involve husbands and families, provide follow-up counseling, and monitor LTCM uptake over time.

CONCLUSION

Health education on LTCM for WRA in Tragih Village, Robatal District, was carried out with 27 participants, exceeding the minimum target of 25. Knowledge improved: good knowledge rose from 14.8% to 81.5%, poor knowledge fell from 33.3% to 0%, and the mean score increased from 58.1 to 86.3 (+28.2 points), with 25 of 27 participants (92.6%) improving. Satisfaction was high, with 70.4% very satisfied, 29.6% satisfied, and a mean score of 88.5%. The leaflet and banner were used and can be reused by cadres and health workers, and five of six output indicators were achieved.

For future service, it is recommended to (1) continue LTCM education regularly through cadres, Posyandu, and community activities; (2) provide individual counseling for WRA who still have fair knowledge or doubts about LTCM; (3) involve partners or families in education and counseling so that contraceptive decisions are supported; (4) use leaflets and visual media continuously; and (5) complete the scientific article and documentation of outputs.

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