Jurnal SMART Kebidanan, 2024, 11 (2), 117-122
DOI: http://dx.doi.org/10.34310/jskb.v11i2.134
https://ojs.unkaha.com/ojsn/index.php/jskb
Received: November 20th, 2024; Revised: November 30th, 2024; Accepted: December 01th 2024

JSKB 2024
pISSN: 2301-6213, eISSN: 2503-0388

THE UTILISATION OF E-LEARNING TO IMPROVE CONTRACEPTIVE SELECTION SELF-EFFICACY POSTNATAL MOTHERS

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ABSTRACT

The inadequate prevalence of postpartum contraceptive utilization is attributable to insufficient communication, information, and educational services. E-learning media warrants consideration due to its cost-effectiveness and ability to present knowledge in an appealing fashion, which influences the recipient's self-efficacy for postpartum contraception. This study aimed to analyze the effectiveness of family planning counseling media with *e-learning on postpartum* contraceptive selection at Wonosamudro Public Health Center. Qualitative research type Quasi-experimental approach. This research employs a pre-test and post-test group design. The populace of postpartum mothers in the Wonosamudro Health Center working area in 2023 was 386 patients; the inclusion criteria were postpartum mothers after 14 days postpartum, giving birth for the first time either average or Sectio Caesaria. The number of research samples was 80 respondents. *The univariate* analysis uses central tendency data, and *the bivariate* analysis uses the Paired T-Test test because the normality test results are typical (p value> 0.05). The results showed that after debriefing/education and *follow-up* via WhatsApp group and TikTok, there was a significant increase in scores (35.24). The significance level (2-tailed) of 0.000 (<0.05) indicates a substantial difference (meaningful influence) between before and after *e-learning* in the selection of postpartum contraception.

Keywords: E-Learning, Family Planning, Selection, *Self-Efficacy*

INTRODUCTION

Population dynamics have always been a significant concern because it is one of the foundations of a country's development planning. The United Nations projects that by November 15, 2022, the global population will attain 8 billion individuals (PBB, 2022). According to the 2020 Population Census, Indonesia's population was 270 million in 2020. As of June 24, 2022, the Directorate General of Population and Civil Registry (from now on, Ditjen Dukcapil) estimates that the population is 279.36 million. Consequently, Indonesia ranks as the fourth most populous nation globally. (BPS, 2020b). Central Java Province has a population of more than 10 million, namely 36.52 million, and is recognized as the province with the third-largest population on a national scale. (BPS, 2020a). Boyolali is a city/district in the province of Central Java, with a population of 1.07 million. (BPS, 2021). Wonosamudro sub-district is a sub-district in the working area of Boyolali district with a population of 527(BPS, 2021). Strategies to regulate population growth encompass the Family Planning initiative. Family planning is a human endeavor to intentionally regulate pregnancy within the family, aligning with the legal and moral principles of Pancasila for familial well-being. The family planning program will regulate population increase to enhance the health and welfare of families. Quality family planning services encompass contraceptive marketing and the delivery of Interpersonal Communication/ Counseling (KIP/K). (Maritalia D., 2021). Family planning (KB) is an initiative aimed at regulating childbearing, including the timing and spacing of pregnancies, through promoting, protecting, and supporting reproductive rights to foster a quality family. Family planning program is believed to have contributed to a decrease in the birth rate, which has led to a decrease in population growth. In this case, concrete efforts and figures are needed to reduce the population growth rate through various programs both in terms of quality and quantity (Yusran, 2022).

Several indicators, including the level of contraceptive use and the level of unmet need for family planning, can identify the success of the family planning program. Globally, the Contraceptive Prevalence Rate (CPR) has increased significantly in women of childbearing age from 1970 to 2019, from 28% to 48%. in women of childbearing age from 1970 to 2019, from 28% to 48% (Haakenstad, A. et al, 2022). The impact of

the high unmet need for Family planning constitutes the increased potential for unintended pregnancy (Wondie, 2021). Unintended pregnancies can increase the contributing factors of maternal mortality, neonatal and post-neonatal mortality, inadequate parenting, risk of stunting, and low educational attainment (Asrat et al., 2024). The use of contraception after childbirth is a strategic step that can be taken to improve maternal and child health and reduce the risk of infant mortality. The utilization and use of contraceptive devices or methods after childbirth is an action that exists in postpartum family planning services (Anyantonwu, O. P., Nwoku, K. A., Jonssons, H., & Namatovu, 2023).

E-learning is a breakthrough in education because it is interactive, engaging, and entertaining. It can replace print media in online media and provide better access to online information sources. (Regmi, K., & Jones, 2021). In addition, e-learning can increase accessibility, interactivity, flexibility, knowledge management, cost efficiency, and opportunities for users to obtain information without being bound by time and place (accessible for 24 hours) (Ardestani, S. F. M., Adibi, S., Golshan, A., & Sedeghian, 2023). Based on research by Darmaningsih et al. (2020), e-learning has a practical level in the convenience category. E-learning media is flexible and distributed and very user-friendly (easy to use). In addition, e-learning users have flexibility in everything, including time, place, speed of understanding information (material content, type of evaluation, and learning style) (Darmaningsih, N. W. P., Wahyuni, D. S., & Sindu, 2020).

Based on the research of Durrotun Munafiah et al., E-ProfBid is a computer program in the form of an application that contains knowledge and skills of midwifery care in childbirth through the enrichment of case questions and expert video explanations. There is an effect of knowledge of midwifery clinical skills in childbirth after E-ProfBid application training. E-ProfBid application is practical in increasing knowledge of midwifery clinical skills in the labor stages (Munafiah et al., 2024). Community service activities carried out by (Durrotun et al.) To enhance knowledge, skills, and clinical competencies in the labor stage by providing education, training, and monitoring evaluation to midwives in the clinical ability of the labor stage through the E-ProfBid application technology (Munafiah et al., 2023).

Based on the above background, previous studies have not shown the effectiveness of e-learning in contraceptive selection in postpartum women. The application of e-learning-based educational media is expected to overcome the limitations of educating about postpartum contraception. This can stimulate the target (especially postpartum women after 28 days postpartum) to learn more and ultimately get better information. In addition, the application of e-learning that facilitates the education process underlies the researcher's analysis of the effect of e-learning on the level of knowledge of postpartum mothers.

METHOD

This quantitative research employs a faux pre-test post-test group design methodology. The population of this study consisted of postpartum women after 14 days postpartum in March-April 2024 at Wonosamudro Health Centre, Boyolali City Health Office Work Area. The total number of samples was 80 respondents. This study employed purposive sampling, adhering to the established inclusion and exclusion criteria. The criteria for inclusion were postpartum mothers after 14 days postpartum, giving birth either average or Sectio Caesaria for the first time.

This research instrument uses a questionnaire about postpartum contraception given to respondents. Before being given to respondents, a validity test was carried out with the results of the value of r count> from the r table, so the questionnaire was valid. So that it can be used for research data collection, postpartum mothers in this study were given E-Learning interventions in the form of WhatsApp and TikTok groups. This study has received approval and ethical clearance from the Karya Husada University Semarang Ethics Committee with reference number 015/KEP/UNKAHA/SLE/III/2024.

A pre-test was conducted before the intervention was implemented. The intervention was carried out six times, starting on the 21st day until the 42nd day postpartum. The material was

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distributed in the form of TikTok videos, and follow-up was carried out every day through whats post-test conducted after the intervention was completed, namely on the 43rd day postpartum. Data analysis using a Paired T-test was used to test the hypothesis that E-Learning media significantly affects the self-efficacy of postpartum contraceptive selection.

RESULTS

Table 1 : Characteristics of Post-Partum Mothers

Characteristics of post-partum Mothers	n	%
Age		
20-35 years	78	97.5
> 35 years	2	2.5
Education		
Low	9	11.3
Intermediate	26	32.5
High	45	56.3
Work		
Work	59	73.75
Not working	21	26.25
Total	**80**	**100**

Based on Table 1, the age of post-partum mothers is mainly included in healthy reproductive age (20-35 years) as many as 78 respondents (97.5%), the education of post-partum mothers is mostly higher education as many as 45 respondents (56.3%) and the work of post-partum mothers is primarily working as many as 59 respondents (73.75%).

Table 2: *Self-efficacy of* postpartum mothers in choosing postpartum contraception.

Variabel	N	Mean	Standar Deviasi
Pre-Test Self Eficacy	80	22.66	2.810
Post-Test Self Eficacy	80	35.24	4.128

Analysis in Table 2 shows that before the E-Learning intervention, the mean self-efficacy rating was 22.66, with a standard deviation of 2.810. Post-intervention, the mean self-efficacy score is 35.24, with a standard deviation 4.128.

Table 3 : The Effect of E-Learning on Post-Partum Contraception Selection Self-Efficacy

Variabel	p-value
Pre-Test Self Eficacy Post-Test Self Eficacy	0.00

Table 3 shows the *self-efficacy of* postpartum mothers in choosing postpartum contraception, with a P value of 0.00. Thus, it can be concluded that providing E-Learning interventions affects Postpartum Contraceptive Selection Self-Efficacy.

DISCUSSION

Self-efficacy is formed through the learning process individuals can receive at the formal education level. Individuals with elevated levels typically exhibit greater self-efficacy due to enhanced learning and formal schooling. Moreover, higher education individuals will encounter more significant opportunities to acquire problem-solving skills.

Educational adequacy facilitates individuals' comprehension of new information; the higher the level of education, the more frequent the intensity of obtaining stimulus, and the higher the understanding of the information obtained. Of course, this condition will continue if a person has a job with the support of habits of thinking hard, just like during the education process. In addition to influencing the habit of thinking, work can access health facilities in the form of socio-economic ability or income.

An essential aspect of helping to deliver appropriate, complete, and objective information on contraceptive methods, identifying and accommodating negative feelings related to family planning, assisting in the selection of the best contraceptive method, helping to use the chosen contraceptive method safely and effectively, provide information on how to get help and where to find family planning services is by providing family planning counseling.

By providing sound information or counseling, prospective family planning acceptors will be able to make choices about contraceptive methods / types with confidence and according to

their wishes and will not regret the decisions made in the future. Limited information obtained about contraceptive methods will lead to less knowledge. This is the cause of the lower, the more frequent and understanding of the information obtained will be higher and will affect the self-efficacy of each individual.

The purpose of family planning counselling is to assist a woman in selecting a form of contraception that will enable her to exercise her rights to reproductive health and achieve her family planning objectives. The suitability and efficacy of family planning counselling greatly influence a client's decision-making process regarding contraception. The quality of family planning counselling should ultimately be the deciding factor in a client's decision to use contraceptives successfully and appropriately (Abebaw et al., 2024). The unmet need for contraception during the postpartum period is a significant concern for us. Despite the abundance of contraception, many unintended pregnancies still happen. Despite their desire for contraception, the couples' ignorance and misconceptions prevent them from accepting it (Kumar et al., 2024). Based on Suvidha Saurabh's study, The study found that 540 out of 830 births made in a year had LSCS, with roughly 190 patients—or 35% of the total—choosing to use contraception. 18.5% of primi gravida chose to have a PPIUCD implanted. When it came to contraception during a cesarean section, 16.67% of multigravida agreed, with PPIUCD being favoured above permanent sterility. Just 50 of the 290 typical deliveries consented to use contraception. Just 37.5% of multigravida and 70% of primigravida agreed to postplacental IUCD implantation. Just 25% of multigravida patients consented to postpartum sterilization. Depo Provera, an injectable contraceptive, was also chosen by 37.5% of multigravida and 30% of primigravida. Just 30% of primigravidas and 41% of multigravidas out of 338 patients with MTP consented to CuT implantation. Sterilization was approved by 13.8% of multigravida. Injection depo provera was chosen by 5.6% of individuals with multiple gravida and 8% of patients with primi gravid (Saurabh, 2024). Based on research by Anastasia J. Gage et a., Another significant predictor was the rejection of myths and misconceptions about family planning. According to interaction terms, there were differences in the relationship between normative expectations and PPFP intentions among ethnic groups. Additionally, there was a significant rise in the positive link between PPFP intentions and injunctive norms when the general public was thought to be against PPFP usage. Normative expectations and PPFP-related self-efficacy explained two-thirds of the variation in PPFP intentions. According to the findings, it might be crucial to comprehend several normative pressures in order to encourage women to utilize contraception during the first few months after giving birth. Programs should consider including norm-based and empowerment tactics in addition to addressing the institutional, individual, and social factors of PPFP (Gage et al., 2021).

The findings and analysis of the research results above indicate a significant difference between counseling efforts and *e-learning*. At this time, the process of transferring information from health workers to prospective acceptors requires innovation and creativity further to convince postpartum mothers of the right choice of contraception and educate them to reduce the growth rate through the family planning program. In this study, researchers made a breakthrough (innovation) with improvisation through the use of social media in the form of WhatsApp group and TikTok to educate and *follow up*, namely providing technical instructions on contraception and Several categories, including the efficacy, efficiency, benefits, and drawbacks of each. The choice of *e-learning* idea is reasonable, but according to the researcher's assumption, *e-learning* media will be much more relaxed (relaxed) and flexible (researchers take a *friendly* approach).

In general, the researchers' efforts produced maximum results, as they were able to invite and convince respondents to choose contraception. This means that the level of self-efficacy has increased.

E-learning has revolutionized the healthcare education sector by giving healthcare professionals access to training and development opportunities regardless of their location. However, healthcare workers in rural or distant places must overcome obstacles, including limited access to educational

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materials, unreliable internet connectivity, geographic isolation, and a shortage of instructors and specialized training programs. These difficulties obstruct both their professional growth and their access to e-learning options (Mahdavi Ardestani et al., 2023). According to Umi Toifah et al.'s research, the use of e-learning-based I-VLAM has a 1.1 effect size compared to pamphlets, indicating that it significantly impacts third-trimester pregnant women's attitudes (Toifah et al., 2024).

CONCLUSION

The E-Learning Media for Contraceptive Selection that has been developed is based on a logical concept adjusted to the purpose of its use. Rational/logical contraception considers not only the effectiveness of contraceptive technology and the purpose of contraceptive use (postponing, spacing, or limiting) but also rationally based on medical acceptance criteria. Technically, it also requires its own innovation and emotional approach to educate and convince postpartum women to choose safe and effective family planning.

Midwives have an essential role in facilitating discussions about contraception and access to contraception with women who have recently given birth. The provision of postpartum contraceptive services can be optimized by increasing access to education through E-Learning, multidisciplinary collaboration, and postpartum screening.

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