

Original Research

The Effect of Tri-Core Breastfeeding Models on Mother's Willingness to Breastfeed in COVID-19 Era



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Article Info	Abstract
Article history: Received: 1 November 2022 Accepted: 21 January 2023	<i>Introduction:</i> Failure to give exclusive breastfeeding is one of the problems that is commonly found in postpartum mothers, especially in primiparas. For primiparas, being a mother is a new role that is quite difficult because it requires an adaptation process on how to split time between taking care of the baby, husband, and personal needs. Tri-Core Breastfeeding Models is a practice guideline in the form of health promotion to mothers in breastfeeding, which can improve maternal and child health, which consists of three parts: Lactation Education, Self Confidence, and Lactation Support.
Keywords: Tri-Core breastfeeding, primipara, willingness to breastfeed, new normal	<i>Methods:</i> The design of this study was a quasi-experimental design with a post-test only control group design. The total sample was 30 respondents divided into two groups (control and treatment) with 15 respondents in each group. The sampling technique used was purposive sampling. The data collection tool used is the Infant Feeding Intention (IFI) questionnaire. T-test was used for bivariate data analysis. <i>Results:</i> The results show that the mean score of the mothers' willingness to breastfeed in the group that was given the Tri-Core Breastfeeding Models (14.6) was higher than the group that was not given the Tri-core Breastfeeding Models (6.7) (p-value = 0.001). <i>Conclusion:</i> There was a significant effect of the application of Tri-Core Breastfeeding Models on the Mother's Willingness to Breastfeed in the COVID-19 Era.

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INTRODUCTION

Breast milk is the best source of nutrients that can improve the health of mothers and children. Breastfeeding for infants is very important for growth and development, especially in the early period of life [1]. Breastfeeding provides many benefits for babies. Babies who are not breastfed will be more susceptible to chronic diseases, such as heart disease, hypertension, diabetes and obesity [2]. The World Health Organization (WHO) reports that, globally, the average rate of exclusive breastfeeding in the world in 2017 was only 38% and targets that by 2025 the rate of exclusive breastfeeding in the first 6 months of birth will increase by at least 50%. According to UNICEF, the low coverage of exclusive breastfeeding is due to a lack of knowledge about lactation management. The failure of exclusive breastfeeding is one of the problems that often occurs and is commonly found in postpartum mothers, especially in primiparas [3]. For primiparas, being a mother is a new role that is quite difficult because it requires an adaptation process regarding how to divide time to meet personal needs, and research conducted by Marwiyah [4] show that mothers who have more than one child (multipara) tend to practice exclusive breastfeeding compared to mothers who have 1 child (primipara). This is in line with research conducted by Anisa [5] which states that primiparous mothers experience breastfeeding failure more than multiparous parity. In addition to the relationship with parity [6] there was a relationship between knowledge and the failure of exclusive breastfeeding. Mothers who have less

knowledge have a 15.9 times chance of not giving exclusive breastfeeding compared to mothers who have good knowledge. In addition to knowledge, a strong desire or belief (Self-efficacy) can influence mothers to give exclusive breastfeeding to their babies. There are three main sources of information that can influence breastfeeding self-efficacy, namely success experiences (previous breastfeeding experiences), other people's experiences (seeing other people breastfeeding) and verbal persuasion (support from influential people such as friends), family, lactation consultant, and physiological conditions such as stress) [7].

By supporting in breastfeeding is also the key to success in breastfeeding [8]. Research conducted by Garbhani and Padmiari [9] shows that the factors that play an important role in the success of breastfeeding are the closest people, including health workers. According to Lestari et al. [10], postpartum mothers with good support have a 0.7 times greater likelihood of experiencing higher success in breastfeeding than mothers who lack support. In the midst of the COVID-19 pandemic, the role of midwives is very influential in growing the willingness or intention of postpartum mothers to breastfeed their babies, so that later they can increase the success of exclusive breastfeeding.

The provision of Counselling, Information and Education regarding breastfeeding with the application of health protocols in the New Habit Adaptation Era or COVID-19 era is one of the midwives' innovations in providing support to postpartum mothers so that they can meet the

nutritional needs of their babies safely and comfortably. According to Larasati et al., [11], during breastfeeding in the era of adapting to new habits, primiparous mothers must apply health protocols such as using masks, washing hands, and using hand sanitizer.

Public Health Centre I Denpasar Timur is one of the health facilities located in Denpasar City, covering two sub-districts and four villages and has two sub-health centres as well as several Private Midwifery Practices spread across various work areas with a large number of visits by postpartum mothers. Based on a preliminary study conducted at Public Health Centre I East Denpasar on 5 primiparous mothers using the interview method, it was found that three people (60%) failed to breastfeed their babies on the grounds that breast milk did not come out at the time of delivery, so they decided to give formula milk. Some mothers also discontinued breastfeeding because at that time they experienced symptoms suspected of being infected with the Covid-19 virus, which caused mothers to feel anxious and worried if their babies were infected, in addition, some said they did not get support from their husbands or families and did not know how to give them. Breastfeeding is good and right in the period of adaptation to new habits.

The care program on Exclusive Breastfeeding which was implemented in the work area of the East Denpasar Health Centre I in the form of individual counselling during postpartum visits and the implementation of counselling, was felt to be ineffective in increasing the willingness and confidence of mothers to breastfeed their babies, especially with the COVID-19 pandemic which impact on

health services, causing health workers, especially midwives to experience problems in carrying out an educative and participatory approach, so that the coverage of exclusive breastfeeding has decreased from the previous year. In addition, husband and family support is also very much needed in order to achieve success in breastfeeding primiparous mothers.

Over time, to improve the health status of mothers and children through exclusive breastfeeding, the government issued a decree contained in the Decree (SK) of the Minister of Health of the Republic of Indonesia Number HK.01.07/Menkes/12763/2020 concerning Operational Guidelines for Health Efforts at Service Posts. Integrated in the Adaptation of New Habits for the Implementation of Productive and Safe Communities Coronavirus Disease 2019 (COVID-19) and Director's Letter Number PR.03.01/5/5428/2020 dated November 2nd, 2020, Regarding Explanation of Implementation of Activities in Achieving Health Promotion Indicators and Community Empowerment During the Pandemic [12]. Based on this, one of the efforts that can be made in increasing the knowledge, awareness and ability of individuals and families, especially in supporting breastfeeding for primiparous mothers in the COVID-19 era is by applying a method of care called Tri-Core Breastfeeding Models which is carried out through home visits.

Tri-Core Breastfeeding Models is a practice guideline in the form of health promotion to mothers in breastfeeding, which can improve maternal and child health, which consists of three parts: Lactation Education,

Self Confidence, and Lactation Support [13]. Tri-Core Breastfeeding Models, are three forms of care that midwives can provide at postpartum visits by providing education and lactation support so that it can grow the mother's confidence to want to breastfeed her baby. Therefore, according to the explanation of the problem above, the researcher wants to investigate further about the effect of the application of the Tri-Core Breastfeeding Models in primiparas on the willingness to breastfeed in the adaptation period to new habits in the working area of Public Health Centre I, East Denpasar.

METHODS

This type of research is quantitative research with a quasi-experimental design. The research design used was post-test only control group design. This research was conducted in the working area of Public Health Centre I East Denpasar. The sample used in this study were primiparous mothers who had postpartum visits in the working area of Public Health Centre I East Denpasar and met the inclusion criteria with a sample of 30 respondents who were divided into the experimental group of 15 respondents and the control group 15 respondents. Sampling technique using purposive sampling type. The inclusion criteria in this study were primiparous mothers with a history of normal delivery, did Early Initiation of Breastfeeding during childbirth, lived in the working area of Public Health Centre I East Denpasar, breastfeed their children, could communicate well, were willing to be respondents, while the exclusion criteria for babies died, babies

had congenital abnormalities such as cleft lip, working as a health worker, giving formula milk. The type of data used is primary data obtained from the results of questionnaires that have been filled out by primiparous mothers, while secondary data is obtained from register records of visits by primiparous mothers. In recruiting prospective respondents, the researchers collaborated with midwives on duty in the working area of Public Health Centre I East Denpasar. After the prospective respondents agreed to be involved in the study, the researchers then created a WhatsApp group in the experimental group which aims to facilitate communication and coordination and at the same time can be used as a breastfeeding support group. In practice, not all respondents can join the group because they do not have a mobile phone that can support the application so that researchers carry out monitoring by contacting the respondent directly to find out the obstacles faced during the breastfeeding process. The implementation of this study involved four enumerators who were previously given training on the application of the Tri-Core Breastfeeding Models. Before conducting the intervention, the researchers prepared informed consent and booklets as educational media. Home visits were carried out four times. The first visit (6-8 hours postpartum), the second visit (3rd day postpartum), the third visit (8 days postpartum) aims to see the difficulties experienced by mothers while breastfeeding during the adaptation period to new habits and help to overcome them. The fourth visit (29 days postpartum), evaluated the application of the Tri-Core Breastfeeding

Model. During the implementation of the research, none of the respondents were confirmed positive, so the implementation of care was carried out directly with health protocols. The instrument or data collection tool used in this study was the Infant Feeding Intention (IFI) questionnaire which had previously been tested for validity and reliability with Cronbach's alpha score of 0.90. The IFI contained of five items of statements, and was answered using Likert scale. The domain of IFI questionnaire were the feeding method chosen by the mothers, whether it is direct breastfeeding or formula, and how long were the mothers willing to directly breastfeed their babies. Bivariate analysis used independent sample t-test with 95% confidence level or $\alpha = 0.05$ (5%).

Ethical Clearance

The research permits were carried out through the Investment and Integrated Services Office number B.30.070/3493.E/IZIN-C/DISPMPT, researchers have also obtained research permits from the National Unity and Political Agency of Denpasar City number 070/928/BKBP. This research also was given research ethics by Institute of Health Science Bina Usada Ethic Commission number

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RESULTS

Characteristics of Respondents Based on Age, Education and Employment of Primiparas in the Working Area of Public Health Centre I East Denpasar can be seen in table 1.

In table 1, it can be seen that the characteristics of primiparous mothers in both the control and intervention groups show that almost all of the respondents are aged 20-35 years, most of the respondents have secondary education and on the job characteristics, almost half of the respondents are private employees and housewives.

Based on table 2, it can be seen that the results of descriptive statistical calculations in the group that were not given the Tri-Core Breastfeeding Models showed that, the number of respondents was 15 people, had a mean value of 6.7 and the lowest value was 5.5 and the highest value was 8.5. with a standard deviation of 0.978 while in the group that was applied the Tri-Core Breastfeeding Models also showed as many as 15 people, having a mean value of 14.6 and the lowest value of 12 and the highest value of 16 with a standard deviation of 1.270. The p-value for each variable is 0.0001.

Table 1

Characteristics of Respondents Based on Age, Education and Employment of primiparas in the Working Area of Public Health Centre I East Denpasar

		Frequency (f)		Percentage (%)	
		Intervention	Control	Intervention	Control
Age	<20 years old	1	0	6,7	0
	20-35 years old	13	14	86,6	93,3
	>35 years old	1	1	6,7	6,7
Education	Primary Education	0	1	0	6,7
	Secondary Education	10	11	66,7	73,3
	High Education	5	4	33,3	26,7
Occupation	Entrepreneur	2	6	13,3	40
	Employees	6	4	40	26,7
	Housewife	6	4	40	26,7
	Government employees	1	1	6,7	6,7

Table 2

The Effect of Application of Tri-Core Breastfeeding Models on Primiparas on Willingness to Breastfeed in the COVID-19 Era in the Working Area of Public Health Centre I East Denpasar

Group	n	Mean	Min-Max	SD	t	p-value
Control	15	6,7	5,5 - 8,5	0,978	-19,080	0,0001
Treatment	15	14,6	12 - 16	1,270		

DISCUSSION

This study wanted to determine the effect of the application of Tri-Core Breastfeeding Models on primiparas on the willingness to breastfeed in the Adaptation Period of New Habits. The adaptation of new habit is the act and application of implementing a new way of life in order to maintain productivity during the COVID-19 pandemic with the code of conduct for the prevention of COVID-19. The Tri-Core Breastfeeding Models provided in this study include providing knowledge about

lactation management, efforts made to increase maternal confidence (self-efficacy) and involving the role of husbands and families to support mothers in breastfeeding. Based on the results of the study, it was found that the average score of the mothers willingness of breastfeeding in the group that was given the Tri-Core Breastfeeding Models was higher, namely 14.6 compared to the average score of the mothers willingness of breastfeeding in the group that was not given the Tri-Core Breastfeeding Models, which was 6.7 In providing education, the researcher

held four meetings in the treatment group with estimated 30 minutes duration for every meeting, involving the role of the family, whether it was husband, mother's parents, in-laws, sister or brother-in-law who lived with mother.

In this study, the education provided in lactation management included the importance of exclusive breastfeeding, the risks of formula feeding to infants under the age of 6 months, correct breastfeeding techniques, breastfeeding basics, infant care, maternal diet, how to determine if a baby is breastfed enough and Covid-19 prevention efforts in breastfeeding mothers. Education about lactation management affects the motivation and behaviour of breastfeeding in mothers. Based on the results of the statistical test, it was found that $p = 0.0001$, which means that there is an effect of the application of Tri-Core Breastfeeding Models on the willingness to breastfeed in mothers during the adaptation period of new habits [14]. This shows that the willingness of mothers to breastfeed with assistance through the application of Tri-Core Breastfeeding Models is higher than mothers who are not given Tri-Core Breastfeeding Models. This is in line with research conducted [15] which found that breastfeeding mothers who received assistance had high knowledge, with a median value of 95 while the minimum value was 90 and the maximum value reached 100 for breastfeeding compared to the group of mothers who did not receive assistance. Similarly, research by [16] showed an increase in knowledge about lactation management by 22 points in the group that was given the assistance.

The Theory of Planned Behaviour (TPB) states that intentions cannot stand alone, but are influenced by three determining factors, namely, behaviour beliefs, normative beliefs and perceived behaviour control, where these three factors are influenced by background factors which include personal factors, social and information. The knowledge possessed by primiparas can affect behaviour beliefs in the form of mothers' attitudes in assessing the extent to which the application of the Tri-Core Breastfeeding Models is beneficial or not for themselves which can affect the mother's behaviour in breastfeeding. Mother's intention to breastfeed will be the impetus for exclusive breastfeeding. In addition to providing education about lactation management, support can also affect the willingness to breastfeed in mothers.

In the context of exclusive breastfeeding, mothers also really need empathy, love and care from the families. Having good support from families can be motivation and enthusiasm for mothers to exclusively breastfeed [17]. Mothers who receive support tend to give exclusive breastfeeding than mothers who do not receive support [8].

Education and support are still not enough to create success in breastfeeding. Internal factors in individuals, namely self-confidence or belief in themselves are one strong reason to increase the willingness of breastfeeding mothers. According to Busch et al. [13] self-efficacy when breastfeeding is a sense of confidence that a mother has that she is able to successfully breastfeed and overcome her own problems. According to [8] states that the self-efficacy of breastfeeding mothers in breastfeeding is one of the keys to

the success of breastfeeding. One of the efforts made to increase self-efficacy in the application of Tri-Core Breastfeeding in this study is to provide rewards in the form of praise when the mother is able to apply the education provided, so that it can increase the mother's confidence to be able to give breast milk to her baby. also given positive affirmations by ensuring that mothers are able to breastfeed their babies until they are successful in providing exclusive breastfeeding, especially during the adaptation period for new habits.

In the TBP theory, the subjective norms of breastfeeding mothers have an important role in the success of breastfeeding. One of them is the mother's self-awareness. Mothers who realize that breastfeeding is an obligation after childbirth will be successful in breastfeeding her baby. In addition, the mother also felt proud because she was able to breastfeed her baby well. This happens because mothers realize that breastfeeding has many benefits for babies, including complete nutritional content in breast milk, breast milk provides immunity to babies, breast milk increases baby's intelligence, and breastfeeding can improve the psychological relationship between mother and baby. Subjective norms and support from the social environment will influence breastfeeding mothers to give exclusive breastfeeding. Social support and social acceptance are needed to assist mothers in providing exclusive breastfeeding [8]. Mother's perception of the benefits of breastfeeding will increase breastfeeding intentions. The intention to breastfeed the baby is a direct

antecedent of exclusive breastfeeding behaviour.

CONCLUSION AND SUGGESTION

There was a significant effect of the application of Tri-Core Breastfeeding Models on the Mother's Willingness to Breastfeed in the COVID-19 Era. It is hoped that health workers can provide holistic and continuous care for postpartum or breastfeeding mothers in increasing knowledge, husband's involvement in providing support and increasing mother's confidence to want to exclusively breastfeed their babies.

RESEARCH LIMITATION

This research was conducted during a period of adaptation to new habits, which at this time were still faced with the conditions of the COVID-19 pandemic, so that researchers experienced several rejections from prospective respondents because they were afraid to go outside or meet other people.

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CONFLICT-OF-INTEREST

The authors have declared that no conflict-of-

interest interests exist.

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