

The Effectiveness of a Guided Education Program on the Skill and Attitude to Breastfeeding among First-Time Mothers in Jordan

Dana S. Al-Radaydah,^{1*} Salwismawati Bt. Badrin,² Salziyan Bt. Badrin,³
Tengku Alina Bt. Tengku Ismail⁴

Abstract

Background: Although the benefits of breastfeeding have been well documented, the rate of breastfeeding in Jordan has recently decreased.

Objective: This study aimed to determine the effectiveness of a guided breastfeeding education program on the breastfeeding skills and attitude towards breastfeeding among Jordanian first-time mothers who were exclusively breastfeeding.

Methods: A quasi-experimental design was used. The study recruited a convenient sample of 87 first-time mothers (intervention = 44, control = 43) from Princess Badea'a Hospital (PBH) in Irbid, Jordan. Data were collected using the Iowa Infant Feeding Attitude Scale (IIFAS) and the LATCH Assessment Tool at the pre-intervention phase (within four hours postpartum) and at the post-intervention phase (at eight weeks postpartum). Repeated measures ANOVA was used to analyze the differences in means between and within the groups.

Results: The results showed a significant increase in breastfeeding skills and attitude towards breastfeeding in the intervention group compared to the control.

Conclusion: Guided breastfeeding education with breastfeeding support can improve breastfeeding skill and reflect positively on the attitude towards breastfeeding, as well as increase the intention to exclusively breastfeed, especially among first-time mothers.

Keywords: Gene therapy, Cystic fibrosis, Pharmacology, Pharmacogenetics, Clinical trial, Vector

(J Med J 2022; Vol. 56 (2):147- 158)

Received

Accepted

February, 8, 2021

September, 29, 2021

Introduction

Although the benefits of breastfeeding have been well documented, breastfeeding rates at three months, six months and 12 months postpartum have fallen below the objectives set by health experts [1]. The World Health

Organization (WHO) and the United Nations International Children's Emergency Fund (UNICEF) recommend early initiation of breastfeeding within an hour of birth, and exclusive breastfeeding for the first six months, followed by continued breastfeeding

1. School of Health Science, Universiti Sains Malaysia.

2. School of Health Science, Universiti Sains Malaysia.

3. School of Medical Science, Universiti Sains Malaysia.

4. School of Medical Science, Universiti Sains Malaysia.

*Correspondence should be addressed to:

Dana Saleh AL-Radaydah, RN (maternal and child health nursing).

School of Health Science, Universiti Sains Malaysia.

Email: danasr988@gmail.com

for two years or beyond, together with adequate and safe complementary foods [2].

In Jordan, the rates of breastfeeding have been decreasing in the last few years, according to the last two Jordanian population and family health surveys by the Jordanian Department of Statistics in 2018. This decrease indicates a potential risk to the health of the infant, as babies may be more vulnerable to gastritis, otitis media or respiratory problems; moreover, this can lead to an increase in the cost of healthcare for babies due to a higher risk of infections [3–4]. Most Jordanian mothers start to breastfeed their babies soon after delivery. According to a survey by World Breastfeeding Trends Initiative [5], in Jordan, 68% of newborn babies receive breast milk within 24 hours of birth. However, exclusive breastfeeding rates are very low.

Breastfeeding is important for infant health, especially in developing countries such as Jordan. Nevertheless, awareness of the potential long-term health benefits for mothers and babies, particularly concerning obesity, blood pressure, cholesterol, and cancer, is still lacking. The myriad benefits of breastfeeding are widely documented in the literature, and new benefits continue to be identified. Emerging research also indicates stronger associations between longer duration of exclusive breastfeeding and enhanced maternal and infant benefits [6–7].

A mother's skills and attitudes regarding breastfeeding might be considered predictors of infant feeding behaviors and continued breastfeeding. Moreover, one factor that influences a Jordanian mother's decision to breastfeed is attitude toward breastfeeding [8–10]. Breastfeeding education is defined as breastfeeding information being imparted during pregnancy in various forms.

Breastfeeding education is usually a formalized, defined, descriptive, and goal-orientated program with a specific purpose and target audience [11]. The goal of educating mothers is not only to increase their breastfeeding knowledge and skills but also to influence their attitudes toward breastfeeding. Breastfeeding education occurs most often during the prenatal and intrapartum periods and should be taught by someone with expertise or training in lactation management. This instruction typically occurs within an informally structured small group setting but may be given one-to-one. This education primarily includes information and resources [12].

There is an increasing awareness of the importance of breastfeeding education among new mothers [13] who need breastfeeding education, especially in the immediate postpartum period, in order to initiate and sustain breastfeeding [14]. In Jordan, most new mothers do not have direct, personal knowledge of breastfeeding and many find it difficult to rely on family members for consistent, accurate information and guidance about infant feeding. Furthermore, although many women have a general understanding of the benefits of breastfeeding, they lack exposure to sources of information regarding how breastfeeding is carried out. In order to achieve adequate breastfeeding rates in Jordan, the government has a good strategy in all aspects (a national policy, program, and coordination), and has also started the Baby-Friendly Hospital Initiative and implemented the international code. However, according to the WBTi report [5], the rate of breastfeeding among children in Jordan under six months is low because of early introduction of complementary food; this is due to the

misconception that breast milk is inadequate. Around 37% of children consume other milk, 9% consume water and breast milk, and 14% consume supplementary food. The reason for such a low rate is the short in-service training programs providing education and skills related to infant and young child feeding for relevant health/nutrition care providers.

Methodology

Sample and Setting

A quasi-experimental design was used. The study recruited a convenient sample of 87 first-time mothers (intervention = 44, control = 43) from Princess Badea'a Hospital (PBH) in Irbid, Jordan. The sample size was determined using PS Power and Sample Size software.

The inclusion criteria were first-time Jordanian mothers' aged 18 and above who had had a normal delivery within 24h during data collection. These mothers had also not had any illnesses or were on any medications, had no intention to breastfeed, and the infants had not been admitted to neonatal wards after delivery.

Ethical Considerations

The study was approved by the Ethics Committees of Universiti Sains Malaysia, in addition to written permission from Princess Badea'a Hospital (PBH) and the Ministry of Health in Jordan for data collection on postnatal first-time mothers in Jordan. All participants signed the informed consent form.

Instruments

The Iowa Infant Feeding Attitude Scale (IIFAS) was used to assess attitude towards breastfeeding among mothers, and the LATCH assessment tool was used to assess breastfeeding skills. IIFAS is a structured self-administrated questionnaire developed in [15] which has consistently indicated good

reliability and validity in different cultures, as well as the ability to predict breastfeeding intention and exclusivity. The scale has been adapted in Arabic studies [16–18]. For each statement, a mother is asked to indicate how much she agrees or disagrees by circling the number that most closely corresponds to her opinion (1=strong disagreement, 2=disagreement, 3=neutral, 4=agreement, 5=strong agreement).

The questionnaire adopted has been translated into Arabic and used in previous studies in Arab countries. We used the Arabic questionnaire from [18]. A study conducted by [15] supports the reliability and validity of the IIFAS in assessing attitudes towards infant feeding methods. The IIFAS appears to be very reliable, with Cronbach's alpha being (0.85), indicating that the measure provides an accurate assessment of attitudes toward infant feeding.

The LATCH assessment tool is useful for targeting short interventions as it assesses both maternal and infant variables and defines areas that need intervention [19]. The LATCH score has also been shown to predict breastfeeding duration and exclusivity. The LATCH score represents a simple cost-effective tool to assess and monitor breastfeeding more objectively, especially in low-resource settings. It might predict breastfeeding duration as early as the first 24 hours of life. Low LATCH scores indicate the need for active intervention, support, and post-discharge follow-up. The LATCH score can be used as an assessment tool at delivery in all hospitals to help identify and target mothers at risk of early weaning to improve the breastfeeding duration, as well as confidence in the mothers [20].

Intervention

The intervention in this study was a guided

face-to-face breastfeeding education program. Information was given on correct breastfeeding skills, latching, the benefits of breastfeeding, and how to handle breastfeeding problems via printed booklet. Mothers were given the chance to demonstrate the proper breastfeeding technique with her baby. One week after delivery, the intervention mothers received a breastfeeding support call, which provided information about breastfeeding, encouraged exclusive breastfeeding, and answered any questions or discussed problems associated with breastfeeding.

Data Collection

Data collection occurred between February to October, 2020. First-time mothers who had delivered a baby within four hours and fulfilled the inclusion and exclusion criteria were invited to join the study. Those who agreed to participate received a full explanation regarding the study and were given a consent form to sign. After this, participants from both groups completed an IIFAS questionnaire, and then breastfeeding skills were assessed using the LATCH scale. The intervention was given to the treatment group within 6–24 hours post-delivery or before discharge from ward. At eight weeks postpartum, breastfeeding attitude and skills were assessed for both groups a second time during mothers' visits to the health clinic for immunization. At six months postpartum, both groups were contacted by phone call regarding the breastfeeding status.

Descriptive statistics were used to describe the sample baseline characteristics (means and standard deviations were calculated). Repeated measures ANOVA was used to compare mean

score within and between groups. Also, descriptive statistics were used to determine the number of mothers continuing exclusive breastfeeding. Data were entered into Microsoft Excel 2013 and then transferred and analyzed using SPSS version 23. Statistical significance 0.05 and power 0.80.

Results

Sample Characteristics

There were 92 first-time mothers involved from the beginning, with five dropping out. The mean age of the mothers was 24.6 (± 2.47) in the control group and 24.4 (± 2.07) in the intervention group. Most participants were unemployed/housewives ($n=39$, 84.8% in the control group and $n=38$, 82.6% in the intervention). There were seven working mothers (15.2%) in the control and eight (17.4%) in the intervention group. The majority of the mothers had had a college education (control $n=40$, 87%; intervention $n=42$, 91.3%), but some had attended high school (control $n=6$, 13%; intervention $n=4$, 8.7%).

The total income for the family was also recorded, and most of the families had an income more than 650 JD ($n=23$, 50%) for the control group and ($n=20$, 43.5%) for the intervention group. Families that had 500–649 JD income were $n=16$ (34.8%) for the control group and $n=14$ (3.4%) for the intervention group. Families that had 250–449 JD income were $n=7$ (15.2%) for the control group and $n=9$ (19.6%) for the intervention group; those families with less than 250 JD were just $n=3$ (6.5%) in the intervention group only. Table 1 shows the demographic characteristics of the study sample.

Table 1. Demographic characteristics of study sample (n=92)

Demographic Characteristics	Control group (n=46)	Intervention group (n=46)
	N (%)	N (%)
Age (mean $\pm$ s.d)	(24.6 $\pm$ 2.47)	(24.4 $\pm$ 2.07)
Mother's Occupation		
Employed	7 (15.2)	8 (17.4)
Unemployed/housewife	39 (84.8)	38 (82.6)
Mother's Education		
Elementary	0 (0)	0 (0)
high school	6 (13)	4 (8.7)
College	40 (87)	42 (91.3)

Means and standard deviations of breastfeeding skills and attitude were calculated using SPSS 23. For the intervention group, the LATCH score was 2.11 $\pm$ 1.166 pre-test and 6.95 $\pm$ 1.363 post-test. For the control group, the LATCH score was 2.33 $\pm$ 1.040 pre-test and 5.16 $\pm$ 1.111 post-test. The mean differences between the LATCH pre-test and post-test were 2.84 for the control and 4.84 for the intervention. For the intervention group,

the IFAS scores were 54.66 $\pm$ 6.276 pre-test and 65.575 $\pm$ 5.032 post-test. For the control group, the IFAS scores were 55.26 $\pm$ 5.534 pre-test and 57.6 $\pm$ 4.846 post-test. The mean differences between the IFAS pre- and post-test scores were 2.35 for the control and 9.55 for the intervention. Table 2 shows the LATCH and IIFAS scores pre- and post- intervention for both groups.

Table 2. LATCH and IIFAS Scores

Groups	LATCH		IFAS	
	Pre	Post (8 weeks)	Pre	Post (8 weeks)
Control group (n=43)	2.33 $\pm$ 1.040	5.16 $\pm$ 1.111	55.26 $\pm$ 5.534	57.60 $\pm$ 4.846
Intervention group (n=44)	2.11 $\pm$ 1.166	6.95 $\pm$ 1.363	54.66 $\pm$ 6.276	65.20 $\pm$ 5.032

Effect of Intervention on Breastfeeding Skills

There was no significant difference in the mean LATCH scores for both groups at pre-test, and the *p* value was 0.374 (*p* $\geq$ 0.05), with *F*=0.799. However, a significant difference in

mean LATCH scores for both groups was seen at post-test, and the *p* value was 0.001 (*p*<0.05) with *F*=45.036. Table 3 shows the ANOVA analysis for both groups before and after the intervention.

Table 3. ANOVA Analysis of LATCH Score between Groups Pre- and Post-Test

	Variable	Sum of Squares	df	Mean Square	F	p value
LATCH pre-test	Between Groups	.977	1	.977	.799	.374
	Within Groups	103.874	85	1.222		
	Total	104.851	86			
LATCH pre-test	Between Groups	69.817	1	69.817	45.036	.0001
	Within Groups	131.770	85	1.550		
	Total	201.586	86			

The scores for first-time mothers in both groups revealed a significant difference in mean score changes, with the p value being 0.001 ($p \leq 0.05$) and $F=16.387$. There was a significant LATCH mean score of difference between first-time mothers in the intervention group and those in the control group. The mean difference in LATCH scores post-intervention (4.84) for the

intervention group was greater than the mean difference in LATCH scores post-intervention (2.84) for the control group. Hence, participating in the guided breastfeeding education program intervention significantly improved breastfeeding skill for these first-time mothers. Table 4 shows the repeated measures ANOVA analysis for LATCH scores within and between groups.

Table 4. Repeated Measures ANOVA Analysis for LATCH Score

Groups	N	Mean (SD)		EMM (95% CI)		F (df)	p Value
		pre-test	post-test	pre-test	post-test		
Intervention	44	2.11 (1.16)	6.95 (1.36)	2.11 (1.67)	6.95 (1.88)	16.378 (1)	0.001*
Control	43	2.33 (1.04)	5.16 (1.11)	2.33 (1.69)	5.16 (1.90)		

* Significance $p < 0.05$, Mean Diff.=3.839

Effect of Intervention on Breastfeeding Attitude

There was no significant difference in mean scores for IFAS in both groups at pre-test, as the p value was 0.640 ($p \geq 0.05$), with $F=0.221$. However, there was a significant difference in

the mean scores for LATCH in both groups at post-test, as the p value was 0.001 ($p < 0.05$) with $F=56.493$. Table 5 shows the ANOVA analysis for both groups before and after the intervention.

Table 5. ANOVA Analysis of IFAS Score between Groups Pre- and Post-Test

		Sum of Squares	df	Mean Square	F	p value
IFAS pre-test	Between Groups	7.744	1	7.744	.221	.640
	Within Groups	2980.072	85	35.060		
	Total	2987.816	86			
IFAS pre-test	Between Groups	1379.155	1	1379.155	56.493	.0001
	Within Groups	2075.075	85	24.413		
	Total	3454.230	86			

The scores for the first-time mothers in both groups displayed a significant difference in mean score changes, as the p value was 0.001 ($p \leq 0.05$) and $F=11.208$. There was a significant IFAS mean score of difference between first-time mothers in the intervention group and first-time mothers in the control ($p < 0.05$). The mean difference in IIFAS score (10.91) for the intervention group was greater

than the mean difference in IIFAS score (2.34) for the control. Hence, participating in the guided breastfeeding education program intervention may have significantly improved breastfeeding attitude for these first-time mothers. Table 6 shows the repeated measures ANOVA for IFAS score within and between groups.

Table 6. Repeated Measures ANOVA for IFAS Score

Groups	N	Mean (SD)		EMM (95%CI)		F (df)	p Value
		pre-test	post-test	pre-test	post-test		
Intervention	44	54.66 (6.27)	65.57 (5.03)	54.66 (0.893)	65.57 (0.753)	11.208 (1)	0.001*
Control	43	55.26 (5.53)	57.60 (4.84)	55.26 (0.903)	57.60 (0.753)		

* Significance $p < 0.05$, Mean Diff.=6.629

Percentage of Mothers Continuing Exclusive Breastfeeding

At week eight for the control group, 21 mothers (48.8%) were maintaining exclusive breastfeeding, 18 (41.9%) were predominantly breastfeeding, and four (9.3%) were partially breastfeeding. For the intervention group, these figures were 31 (70.5%) exclusively breastfeeding and 13 (29.5%) predominantly breastfeeding. Overall, mothers who were exclusively breastfeeding up to the eighth week numbered 52 (59.8%), those predominantly breastfeeding numbered 31 (35.6%), and those partially breastfeeding numbered 4 (4.6%).

At the sixth month, for the control group, mothers who continued exclusive breastfeeding up to six months numbered nine (20.9%), while ten were predominantly

breastfeeding (23.3%) and 11 partially breastfeeding (25.6%). Mothers who had weaned infants numbered 13 (30.2%). For the intervention group, the proportion of mothers who continued exclusive breastfeeding up to six months was 19 (43.2%), the mothers who were predominantly breastfeeding numbered 12 (27.3%), mothers who were partially breastfeeding were seven (15.9%), and mothers who had weaned infants were six (13.6%). Overall, 28 (32.2%) mothers were exclusively breastfeeding up to six months, 22 (25.3%) were predominantly breastfeeding, 18 (20.7%) were partially breastfeeding, and 19 (21.8%) had weaned their infants. Table 7 shows the percentage of infant feeding categories at each level for all mothers at week eight and month six postpartum.

Table 7. Infant Feeding Categories (%)

Breastfeeding follow-up	Control		Intervention		Total	
	n	%	n	%	n	%
At 8 weeks						
Exclusively breastfeeding	21	48.8%	31	70.5%	52	59.8%
Predominantly breastfeeding	18	41.9%	13	29.5%	31	35.6%
Partially breastfeeding	4	9.3%	-	-	4	4.6%
Weaned	-	-	-	-	-	-
At 6 months						
Exclusively breastfeeding	9	20.9%	19	43.2%	28	32.2%
Predominantly breastfeeding	10	23.3%	12	27.3%	22	25.3%
Partially breastfeeding	11	25.6%	7	15.9%	18	20.7%
Weaned	13	30.2%	6	13.6%	19	21.8%

Discussion

Breastfeeding is a practice that needs to be learned. After birth, breastfeeding creates a unique bond between the mother and her child. However, poor breastfeeding techniques and incorrect latching can create many problems that cause an inexperienced mother (first-time mother) to stop breastfeeding and shift to bottle feeding instead. Consequently, nurses play a key role in the prevention and management of such difficulties for first-time mothers with little or no ability to breastfeed. These nurses they need to provide specific knowledge, attitudes and skills to breastfeeding mothers [21].

According to Sowjanya and Venugopalan [20], the LATCH factor is a significant indicator of successful breastfeeding. The mothers in the intervention group received guided education on breastfeeding techniques and positions, were shown a video demonstrating the correct LATCH, and then asked to breastfeed. A mother was helped and corrected if she made mistakes to ensure all intervention mothers understood the right way to LATCH and breastfeed to avoid any future problems. These results are consistent with Nkala and Msuya [22], in that immediate

post-delivery education on breastfeeding skills, such as positioning and attachment, is essential.

The finding that a good latch is the foundation of successful breastfeeding is consistent with Karthika et al. [23], who found that LATCH scores can predict breastfeeding duration in the first 48 hours. Low scores indicate that intervention is required. According to Mostafa et al. [24], implementation of additional activities to improve breastfeeding skills is necessary. This study found that if a first-time mother is educated on how to latch properly and has a good breastfeeding position, she is more likely to breastfeed exclusively up to six months. It is more and more apparent that there is a need for breastfeeding skills training for new mothers, provided by nursing and/or healthcare professionals, as consistent with [25] and in view of the results in our study.

The current study's results revealed an improved level of attitude towards breastfeeding after the educational intervention. Mothers in the intervention group had significantly higher attitude scores compared to mothers in the control. The results also revealed that mothers who

received the guided breastfeeding education program on attitude toward breastfeeding and breastfeeding support had significantly higher scores for attitude compared to mothers in the control group. The findings of our study indicated that an educational breastfeeding program with support could positively increase mothers' attitudes toward breastfeeding, which is a vital factor in the promotion of breastfeeding, in alignment with [24, 26–28].

The results prove that breastfeeding intention was significantly associated with attitude and support in Jordan, and this is consistent with findings in Lebanon and Syria [16]. Mothers in the intervention group showed more breastfeeding exclusivity and duration than mothers in the control. This indicates that the educational program and support were significant in improving the breastfeeding outcome among these first-time mothers in the north of Jordan.

The findings also showed more than twice as many mothers in the intervention group practiced exclusive breastfeeding compared to the control. This is consistent with [13], who reported that mothers made aware of the recommended period of six months were found to be 2.2 times more likely to breastfeed exclusively than mothers who were unaware. Hence, breastfeeding education and breastfeeding support had a significant effect on exclusive breastfeeding practices at six months postpartum for the intervention group. Improving breastfeeding attitude and skill through an educational program and support has been shown to significantly increase breastfeeding exclusivity rate for these first-time mothers in the north of Jordan, consistent with [24, 29–30].

The findings from our study have implications for nurses, because they provide

the majority of care for new mothers, including breastfeeding education. Appropriate nursing studies will prepare professional nurses with information needed to provide support and encouragement to breastfeeding mothers in professional practice. This study has shown that a minimum amount of support has a positive effect on a mother's decision to keep breastfeeding exclusively. The nurse must give the mother the knowledge needed to handle any breastfeeding problems and encourage her to keep breastfeeding by giving her the confidence to breastfeed. It is recommended that the nurse should make sure that the mother understands the right way to latch and maintain a proper position, and then provide her with support in the first week because this is the most critical time after delivery when mothers mostly switch to bottle feeding.

An implication indicated by this research is the need for more accurate and complete breastfeeding education for first-time mothers. It has been found in previous studies that mothers in Jordan are in need of better breastfeeding education and support from both health workers and their social surroundings. The educational intervention may be further improved to be used as a guide for first-time mothers in Jordan. It is important to apply the current research findings to establish new and more effective implications to help with the issue of low breastfeeding rates in Jordan. The study does provide new information that can be used to support a recommendation for the development of a national policy in Jordan for the promotion of breastfeeding as the best form of infant feeding.

Conclusion and Recommendations

An educational breastfeeding program with support could significantly improve

breastfeeding attitude and skills for first-time mothers in Jordan. The study was limited to breastfeeding attitude and skills effect on breastfeeding practice, but previous studies have shown that there are also other important

factors, such as breastfeeding knowledge, confidence, and social factors. Future studies may be conducted to determine the effectiveness of breastfeeding practices, and its duration and exclusivity.

References

1. Harwood K. Intent of Expecting Fathers to Encourage Breastfeeding, Perceptions of Support and Barriers to Encouraging Breastfeeding by. 2011.
2. El-Houfey AA, Saad K, Abbas AM, Mahmoud SR, Wadani M. Factors That Influence Exclusive Breastfeeding: A literature Review. *Int J Nurs Didact*. 2017;7(11):24-31. doi:10.15520/ijnd.2017.vol7.iss11.264.24-31
3. Hatamleh R, Abuhammad S. Breastfeeding knowledge and attitude scale: Arabic version. *Evid Based Midwifery*. 2018;16(2):40-43.
4. Hatamleh R, Abuhammad S. Knowledge , attitudes and future intentions towards breastfeeding among undergraduate students at a Jordanian public university. *Evid Based Midwifery*. 2018;16(4):136-142.
5. IBFAN-Asia. World Breastfeeding Trends Initiative (WBTi). Delhi; 2015. <http://worldbreastfeedingtrends.org/wp-content/uploads/2015/03/docs/WBTi-Guide-Book-2014.pdf>.
6. Schanler ichard J, Krebs NF, Mass SB. Breastfeeding Handbook for Physicians, 2nd Edition. (Schanler Nancy F. Mass, Sharon B. RJK, ed.). American Academy of Pediatrics; 2013. <https://ebooks.aappublications.org/content/9781581108057/9781581108057>.
7. Pitonyak JS, Jessop AB, Pontiggia L, Crivelli-Kovach A. Life Course Factors Associated with Initiation and Continuation of Exclusive Breastfeeding. *Matern Child Health J*. 2016; 20(2):240-249. doi:10.1007/s10995-015-1823-x
8. Ho YJ, McGrath JM. Effectiveness of a Breastfeeding Intervention on Knowledge and Attitudes Among High School Students in Taiwan. *JOGNN - J Obstet Gynecol Neonatal Nurs*. 2016; 45(1):71-77. doi:10.1016/j.jogn.2015.10.009
9. Attia Mohammed B, Abdullah Soliman S. Mothers' Attitudes toward Breastfeeding and Their Association with Infants' Characteristics. *J Nurs Heal Sci*. 2018; 7(3):60-69. doi:10.9790/1959-0703036069
10. Khassawneh M, Khader Y, Amarin Z, Alkafajei A. Knowledge, attitude and practice of breastfeeding in the north of Jordan: A cross-sectional study. *Int Breastfeed J*. 2006;1(February). doi:10.1186/1746-4358-1-17
11. P L, R M, M L, MR F, M H. Antenatal breastfeeding education for increasing breastfeeding duration (Review). *Cochrane Collab*. 2012; (9):3-5. doi:10.1002/14651858.CD006425.pub3
12. Shealy KR, Li R, Benton-Davis S, Grummer-Strawn LM. The CDC Guide to Breast Feeding Intervention. Atlanta: U.S.: Department of Health and Human Services, Centers for Disease Control and Prevention; 2005.
13. Alzaheb RA. Factors Influencing Exclusive Breastfeeding in Tabuk, Saudi Arabia. *Clin Med Insights Pediatr*. 2017;11:1-8. doi:10.1177/1179556517698136
14. Obi C. Effectiveness of breastfeeding counselling on exclusive breastfeeding. 2017.
15. Mora A de la, Russell DW, Dungy CI, Losch M, Dusdieker L. The Iowa Infant Feeding Attitude Scale: Analysis of Reliability and Validity1. *J Appl Soc Psychol*. 1999;29(11):2362-2380. doi:10.1111/j.1559-1816.1999.tb00115.x

16. Hamade H, Naja F, Keyrouz S, et al. Breastfeeding knowledge, attitude, perceived behavior, and intention among female undergraduate university students in the Middle East: The case of Lebanon and Syria. *Food Nutr Bull.* 2014;35(2):179-190. doi:10.1177/156482651403500204
17. Charafeddine L, Tamim H, Soubra M, Mora A De, Nabulsi M. Validation of the Arabic Version of the Iowa Infant Feeding Attitude Scale among Lebanese Women. *J Hum Lact.* 2015;6(1). doi:10.1177/0890334415586192
18. Tamim H, Ghandour LA, Shamsedine L, et al. Adaptation and Validation of the Arabic Version of the Infant Breastfeeding Knowledge Questionnaire among Lebanese Women. *J Hum Lact.* 2016; 32(4): 682-688. doi:10.1177/0890334416663474
19. Zenobi C, Noble L. Improving Breastfeeding by Increasing LATCH Scores – Efficacy of a Resident Initiative. *Pediatrics.* 2019;142(1).
20. Sowjanya SVNS, Venugopalan L. LATCH Score as a Predictor of Exclusive Breastfeeding at 6 Weeks Postpartum: A Prospective Cohort Study. *Breastfeed Med.* 2018; 13(6):444-449. doi:10.1089/bfm.2017.0142
21. Giugliani ERJ. Common problems during lactation and their management. *J Pediatr (Rio J).* 2007;80(8):147-154. doi:10.2223/jped.1248
22. Nkala TE, Msuya SE. Prevalence and predictors of exclusive breastfeeding among women in Kigoma region, Western Tanzania: A community based cross-sectional study. *Int Breastfeed J.* 2011;6:1-7. doi:10.1186/1746-4358-6-17
23. Karthika S, Mathivanan M, Maheswari K, et al. A study on role of LATCH scoring in duration of exclusive breastfeeding in a rural tertiary care hospital, Puducherry : a prospective study. 2020; 7(1): 198-202.
24. Mostafa OA, Salem MR, Badr AM. Effect of an educational intervention on breastfeeding knowledge and attitude among interns at Cairo University Hospital. *J Egypt Public Health Assoc.* 2019;94(1). doi:10.1186/s42506-019-0020-y
25. Fernandes E, Kit K. Effect of a breastfeeding educational intervention : a randomized controlled trial *. 2020. doi:10.1590/1518-8345.3081.3335
26. Talbert AW, Tsofa B, Mumbo E, Berkley JA, Mwangome M. Knowledge of, and attitudes to giving expressed breastmilk to infants in rural coastal Kenya; focus group discussions of first-time mothers and their advisers. *Int Breastfeed J.* 2018;13(1):16. doi:10.1186/s13006-018-0158-9
27. Patel V. Improving Knowledge, Skills , and Attitudes about Breastfeeding. 2016; 8(2013): 24824.
28. Hernández Pérez MC, Díaz-Gómez NM, Romero Manzano AM, Díaz Gómez JM, Rodríguez Pérez V, Jiménez Sosa A. [Effectiveness of an intervention to improve breastfeeding knowledge and attitudes among adolescents]. *Rev Esp Salud Publica.* 2018;92:1-12. <http://www.ncbi.nlm.nih.gov/pubmed/29911663>.
29. Alnasser, Y., Almasoud, N., Aljohni, D., Almisned, R., Alsuwaine, B., Alohal, R., ... & Alhezayen, R. (2018). Impact of attitude and knowledge on intention to breastfeed: Can mHealth based education influence decision to breastfeed exclusively?. *Annals of medicine and surgery*, 35, 6-12.
30. Bernaix, L. W., Beaman, M. L., Schmidt, C. A., Harris, J. K., & Miller, L. M. (2010). Success of an educational intervention on maternal/newborn nurses' breastfeeding knowledge and attitudes. *JOGNN - Journal of Obstetric, Gynecologic, and Neonatal Nursing*, 39(6), 658–666. <https://doi.org/10.1111/j.1552-6909.2010>

فعالية برنامج تعليمي ارشادي حول الرضاعة الطبيعية على مهارة الرضاعة الطبيعية والسلوك تجاه الرضاعة الطبيعية بين الأمهات لأول مرة في الأردن

دانا صالح الرديده^{1*}، سالويزماواتي بنت بادرين²، سالزيان بنت بادرين³، تنغو ألينا بنت تنغو اسماعيل⁴

1. كلية العلوم الصحية، جامعة العلوم الماليزية.
2. كلية العلوم الصحية، جامعة العلوم الماليزية .
3. كلية العلوم الصحية، جامعة العلوم الماليزية .
4. كلية العلوم الصحية، جامعة العلوم الماليزية.

الملخص

خلفيه الدراسة: الرضاعة الطبيعية هي طريقة تغذية معروفة للرضع. على الرغم من أن فوائد الرضاعة الطبيعية موثقة توثيقاً جيداً في الأردن، إلا أن معدلات الرضاعة الطبيعية تتناقص خلال السنوات القليلة الماضية.

هدف الدراسة: تهدف هذه الدراسة إلى تحديد فعالية برنامج تعليمي ارشادي حول الرضاعة الطبيعية على مهارات الرضاعة الطبيعية والسلوك تجاه الرضاعة الطبيعية والرضاعة الطبيعية الحصرية بين الأمهات الأردنيات لأول مرة. **المنهجية:** تم استخدام تصميم شبه تجريبي. تكونت عينة الدراسة من 87 أم لأول مرة (مجموعة تجريبية = 44، مجموعة ضابطة = 43) من مستشفى الأميرة بديةة في إربد الأردن. تم جمع البيانات باستخدام مقياس أيوا لسلوك الرضاعة الطبيعية مقياس LATCH قبل البرنامج (في غضون 4 ساعات بعد الولادة) وما بعد البرنامج (الاسبوع الثامن بعد الولادة). تم استخدام اختبار التباين الإحصائي انوفا للمقاييس المتكررة لتحليل الاختلافات بين الاوساط بين وداخل المجموعات.

النتائج: أظهرت النتائج أن هناك زيادة كبيرة في مهارات الرضاعة الطبيعية والسلوك تجاه الرضاعة الطبيعية بين المجموعة التجريبية مقارنة بالمجموعة الضابطة.

الخلاصة: التعليم الارشادي للرضاعة الطبيعية مع توفير الدعم المعنوي للرضاعة الطبيعية مفيد لتحسين مهارة الرضاعة الطبيعية وبنعكس ايجابيا على السلوك تجاه الرضاعة الطبيعية بالإضافة للرغبة في الرضاعة الطبيعية الحصرية خاصة بين الأمهات لأول مرة.

الكلمات الدالة: الرضاعة الطبيعية، سلوك، LATCH، الأمهات الأردنيات، الفعالية.