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A Systematic Review of Lactation Counseling for Exclusive Breastfeeding

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Abstract--- *There is a need to listen to and accept the mother's opinion without judgment and helping mothers to make the best choice based on relevant information and advice given by a lactation counselor. This systematic review illustrates the role of lactation counselors, which involves informing pregnant women and new mothers about the benefits and management of breastfeeding. Our main goal was to determine whether breastfeeding education during pregnancy and postnatally can make mothers provide exclusive breastfeeding. A systematic review of the literature concerning breastfeeding counseling and lactation counselors for breastfeeding mothers was undertaken. Electronic databases were searched, including Proquest, Science Direct, Sage, Pubmed, Oxford Academic and Cochrane Library. Databases were searched for articles featuring the terms "mother", "mothers", "breastfeeding counseling", "lactation counselor", "breastfeeding counselor", "exclusive breastfeeding", "rct", "randomized control trial", "randomized controlled trial" for peer-reviewed manuscripts published between 1 January 2010 to 31 March 2020; 81 manuscripts were obtained. We included all English studies relevant to the topic. The design study used randomized control trial (RCT). All studies found relating to breastfeeding counseling in breastfeeding mothers were included. Eligible studies were those whose title or abstract specifically indicated the inclusion of breastfeeding counseling and they were analyzed using prisma (5 manuscripts). The results of all studies confirm that the effects of breastfeeding counseling programs are significant. The conclusions of the findings of this review encourage efforts for further research on maternal readiness in breastfeeding, and whether lactation counselors are required or breastfeeding health promotion by health workers*

Keywords--- *mother, breastfeeding, counseling, exclusive, rct.*

I. INTRODUCTION

Breast milk has many health benefits for mother and baby. Breast milk contains all the nutrients a baby needs from birth and continues for at least 6 months as recommended by the World Health Organization and the American Academy of Pediatrics [1]. Breastfeeding can protect babies against diarrhea and common diseases in children such as pneumonia, and also has long-term health benefits for mothers and children, such as reducing the risk of overweight and obesity in childhood and adolescence [2]. If mothers do not give breast milk then these benefits will not be obtained for either mother or baby.

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The benefits of breastfeeding have been documented throughout the world, but according to data from UNICEF, only 42% of children under 6 months received exclusive breastfeeding in 2018 [3]. The data is still below UNICEF's target of 50% by 2025. Efforts that can be taken by the government are to take seven actions to encourage progress in breastfeeding by increasing maternal access to skilled breastfeeding counseling in health facilities [4].

Providing an explanation to mothers about the benefits of breastfeeding and how it can be started from when the baby is born, until the age of 2 years, is covered in a 10-step program for successful breastfeeding from WHO [5]. Research in Latina, shows that interventions (counseling and other actions) with moderate intensity (3-6 meetings) which start from before the baby is born and continue until the baby is born can help the mother to give exclusive breastfeeding [6] but research on groups given the counseling with different frequency: one, two, three and four times postnatally, did not show any difference in increasing the sufficiency of breastfeeding although the counseling assistance could give the adequacy of breastfeeding [7]. Counseling about exclusive breastfeeding in Indonesia is only given once when the mother is pregnant and if the mother does not ask about her breastfeeding needs then the midwife also does not offer education on the first day postnatally [8], but for exclusive breastfeeding counseling to support the mother to maintain breastfeeding, counseling should be given twice during pregnancy and five times postnatally [9]. Mothers in Ethiopia, who have never received breastfeeding counseling antenatally have 81.8% of the initiated breastfeeding but this coverage is decreasing to 47% were exclusive breastfeeding [10]. Counseling is a need to listen to and accept the mother's opinion without judgment and help mothers to make the best choice based on relevant information and advice given by a lactation counselor [9]. Common challenges include interruption of sessions by family/relatives, as well as mothers who are too busy to be visited by the counselor [11].

As such, this study aims to contribute to developing an education program provided by breastfeeding counselors to maintain mothers in exclusive breastfeeding for up to 6 months and continue until children are 2 years old by conducting a systematic review of the literature on educational programs offered by ASI counselors designed for breastfeeding mothers.

II. METHODS

- Strategy for Searching Studies

Studies published in English were searched for on Proquest, Science Direct, Sage, Pubmed, Oxford Academic and the Cochrane Library for between 1 January 2010 and 31 March 2020. Search terms were “mother”, “mothers”, “breastfeeding counseling”, “lactation counselor”, “breastfeeding counselor”, “exclusive breastfeeding’, “rct”, “randomized control trial”, “randomized controlled trial”.

- Study Selection

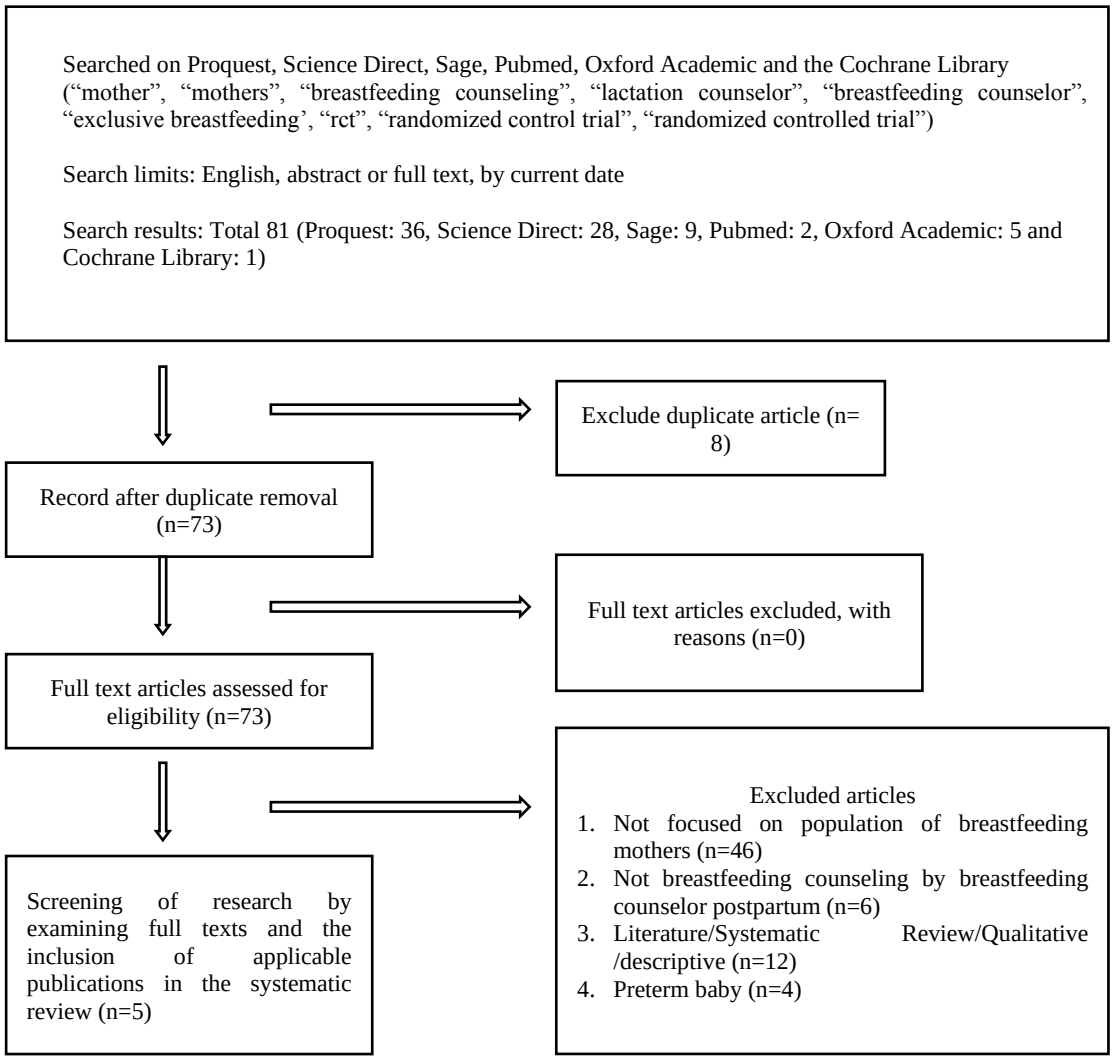
Published studies were eligible for inclusion and reviews, dissertations, case reports and qualitative study were excluded. There were no restrictions regarding the research design or outcome measures used. All studies found relating to breastfeeding counseling by breastfeeding counselors in exclusively breastfeeding mothers were included. Eligible studies were those with specific titles or abstracts about breastfeeding counseling from a breastfeeding counselor. There were no restrictions regarding the age of the participants or the number of participants.

The exclusion criteria were as follows: studies published more than once, not interventional studies, and studies that mention breastfeeding counseling in the text as well as counseling provided in addition to the counselor and the term infants.

Articles that qualified were studies that looked into whether breastfeeding counseling helps mothers to nurse successfully. In addition, breastfeeding counseling had to have been carried out by breastfeeding counselors.

- Review Methods

The abstracts of the identified publications were filtered for relevance to the desired criteria. An article was rejected when the abstract demonstrated that the research failed to meet these criteria. When abstracts provided information that was uncertain, the full article was appraised.



Picture 1. PRISMA FLOW DIAGRAM

III. RESULTS

- Study Characteristics

Study characteristics are presented in Table 1, out of the 5 studies identified for review. The publication years were from 2010 to 2020. The sample size also varied between 114 and 975. The age of participants varied between adolescents and adults with different economic status.

- Study Quality

Several studies reported drop-outs among participants. There were studies reporting that some of their participants lost while further research for several reasons.

- Study Content

There were studies with the use of media (SMS and calls), and interventions with peer counselors who had previously been given training.

IV. DISCUSSION

Providing an explanation to mothers about the benefits of breastfeeding and how it can be started from when the baby is born, until the age of 2 years, is covered by a 10-step program for successful breastfeeding from WHO [5]. Research in Latina, showed that interventions (counseling and other actions) with moderate intensity (3-6 meetings) which start from before the baby is born and continue until the baby is born can help the mother to exclusively breastfeed [6]. Mardhika (2019) explains that there is no relationship between exclusive breastfeeding counseling and the success of exclusive breastfeeding. Counseling about exclusive breastfeeding is only given once the mother is pregnant and if the mother does not ask about her breastfeeding needs then the midwife also does not offer education on the first day postnatally; but, in exclusive breastfeeding counseling, to support the mother to maintain breastfeeding, counseling should be given twice during pregnancy and five times postnatally. Counseling involves the need to listen to and accept the mother's opinion without judgment and help mothers to make the best choice based on relevant information and advice given by a lactation counselor [9] and this can be a motivation for breastfeeding mothers [12]. Counseling can be given by health workers and peers who have been trained as counselors and can use any media [13]. For mothers who are too busy for breastfeeding counseling, information can be given via SMS or telephone from a counselor. SMS and telephone can help breastfeeding mother on early contact but does not have a significant impact on exclusive breastfeeding; mothers have a limited ability to respond to texts easily [13]. The varying results produced by phone at these different periods may be related to the mothers' accessibility to the intervention, the total minutes of counseling the mother has received, the total number of successful counselling calls from the counselor, or maybe the effectiveness of each lactation counselor assigned to the mothers. A study in Malaysia further proves that a single-method of breastfeeding intervention is not effective if conducted for a prolonged period of time, regardless of its feasibility to be conducted in an urban setting [14]. Perhaps it could be modified using video calls so that counselors could see the mother and whether the mother has successfully breastfed her baby or through an assessment instrument (tools) that could be used by health workers to assess pregnant women and postpartum mothers before discharge from the hospital to assess whether the mother requires counseling from a breastfeeding counselor or not so that all is not charged to counselors for one work area.

V. CONCLUSION

The results from all studies confirm that the effect of the breastfeeding counseling program is significant when delivered using any method whether using media (SMS or call) or classic. Each study reports that the intervention program is effective for nursing mothers. The findings in this review can encourage further research efforts to develop appropriate methods so that breastfeeding targets can be achieved.

CONFLICT OF INTEREST

There are no conflicts of interest.

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Table 1. Studies' Characteristics

No	Reference	Study Design	Inclusion Criteria	Sample	Group Comparison	Intervention	Measures	Results	limitation
1	Prenatal Lactation-Focused Motivational Interviewing for Enhancing Breastfeeding Initiation, Exclusivity, and Duration: Feasibility and Preliminary Outcomes [12]	Randomized controlled trial	In addition, at one month postpartum, women in the MI group were more likely to report any current breastfeeding than women in the psychoeducation group	Total: 80 Participants Group: 79	Interagency Group for Action on Breastfeeding's (IGAB) guidelines	Breastfeeding Attitudes	Research question	Support the feasibility of a single-session, prenatal MI intervention. Preliminary findings demonstrate MI's effectiveness in increasing the likelihood of any breastfeeding at one month postpartum, and in enhancing breastfeeding attitudes among primiparous women.	This was the first study of its kind to assess the feasibility and preliminary effectiveness of a brief, single-session, prenatal MI intervention to promote breastfeeding in a sample of North Central Appalachian women. The objectives of the study were to assess feasibility, and to assess MI's effectiveness for enhancing breastfeeding outcomes.
2.	The Influence of Breastfeeding Peer Support on Breastfeeding Satisfaction Among Japanese Mothers: A Randomized Controlled Trial [15]	Randomized controlled trial	In Japan, mothers usually stay in the hospital for 4 to 7 days postpartum. In a nationwide survey, most Japanese mothers continued breastfeeding after hospital discharge.	Total: 114 Group: 60 Control group: 54	Australian RCT protocol	The protocol for the contact schedule was adapted from an Australian RCT protocol	Breastfeeding Self-Efficacy Scale–Short Form (BSES-SF)	On the subscale measuring lifestyle compatibility, participants with peer support had a higher score than those without peer support: regression coefficient 1.54 (95% confidence interval [0.03, 3.04]). The effect size was 0.40 standard deviations among participants with low- and mid-level scores at baseline.	This study was conducted among mothers who were discharged from four maternity hospitals in Tokyo and Kanagawa prefectures in Japan. All four hospitals are located in metropolitan areas. Regardless of sociocultural and economic status, women can give birth at local maternity hospitals because the public health care insurance system provides a lump-sum allowance to

									cover the cost of delivery.
3.	Does telephone lactation counselling improve breastfeeding practices?: A randomised controlled trial [14]	Single blinded, randomized controlled trial (RCT)	357 mothers, each of whom had delivered a full-term, healthy infant via spontaneous vaginal delivery.	Total: 357 Group (n = 179) Control group (n = 178)	Baby Friendly Hospital Initiative (BFHI)	Telephone lactation counselling	Participants answered a self-administered questionnaire during recruitment and were later followed up at one, four and six-month intervals during the postpartum period via a telephone-based questionnaire.	At one month, a higher percentage of mothers in the intervention group practiced exclusive breastfeeding, compared to the control group (84.3% vs. 74.7%, OR 1.825 95%, p = 0.042, CI = 1.054, 3.157). At four and six months postpartum, similar percentages of mothers from the two groups practiced exclusive breastfeeding (41.98% vs. 38.99%; 12.50% vs. 12.02%, no significant differences, both p > 0.05). Slightly higher numbers of mothers in the control group had completely stopped breastfeeding at the one-, four- and six-month marks, compared to the intervention group (7.4% vs. 5.4%; 12.6% vs. 9.9%; 13.9% vs. 9.4%; all p > 0.05). The reason	This study found that lactation counselling by telephone from lactation counselors from the nursing profession had improved the exclusive breastfeeding rates in the first month postpartum period among the participants who had attended a public hospital where the breastfeeding initiation rates were high.

								cited by most mothers who had completely stopped breastfeeding during the early postpartum period was a low breast milk supply, while returning to work was the main reason for stopping breastfeeding later in the postpartum period.	
4.	Impact of the Lactation Advice Through Texting Can Help (LATCH) Trial on Time to First Contact and Exclusive Breastfeeding among WIC Participants [13]	Multisite, single-blind, randomized, controlled trial	Low-income women, breastfeeding mothers	Control: 80 Group: 94	WIC Loving Support BFPC program and intervention group received standard of care plus the text messaging intervention	Received standard of care plus the text messaging intervention	Time to contact with BFPC and EBF status	Lactation Advice Through Texting Can Help had a significant impact on early contact between participants and BFPCs (odds ratio = 2.93; 95% confidence interval, 1.35–6.37) but did not have a significant impact on EBF (odds ratio = 1.26; 95% confidence interval, 0.54–2.66).	The study had several limitations. First, approximately 24.5% of the intervention group and 30.0% of the control group were lost to follow-up at two weeks postpartum. This may indicate that mothers who remained in the study were highly motivated (ie, had a strong intention) to breastfeed, which might have affected the generalizability of findings to women without the intention or motivation to breastfeed. Second, the study relied on self-reported BF

status. Although this introduced the potential for reporting bias, self-reported BF initiation and duration has been found to be both reliable and valid, especially when recalled after a short period.31 Third, the study lacked the power to test for effect modification because this was a tertiary objective of the study; however, the LATCH benefit score results suggested that less vulnerable women might have benefited more from the intervention. Fourth, these results might not be generalizable to WIC populations beyond Connecticut that have a different ethnographic makeup. The current sample drew from a WIC population that was 51.2% Hispanic.

5.	Ten Steps to Successful Breastfeeding programme to promote early initiation and exclusive breastfeeding in DR Congo: A cluster-randomised controlled trial [5]	Randomized, controlled trial	Mothers at these clinics who had given birth to one healthy baby during enrolment, and who expressed their intentions to visit a well-baby session at the same clinic, were eligible and received the treatment assigned to their clinic. Mother–infant pairs were excluded if the mothers intended to attend well-baby clinic visits at a different health facility, or to travel before the child was aged at least six months.	Control: 304 Group 1: 363 (step 1-9) Group 2: 308 (step 1-10)	Health-care professionals with the WHO BFHI course raised the prevalence of exclusive breastfeeding compared with a control group.	With training of staff at well-child clinics and provision of educational flyers (the steps 1–10 group) did not increase the effect in this setting and actually seemed to lessen the effect of the training.	(steps 1–10 group) with computer-generated random numbers used to assign matched pairs to study groups.	Between May 24, and Aug 25, 2012, we randomly assigned two eligible clinics to control, two to BFHI steps 1–9, and two to BFHI steps 1–10. We enrolled 975 eligible mother–infant pairs (304 in the control group, 363 in the steps 1–9 group, and 308 in the steps 1–10 group). 230 (76%) of the infants in the control group, 263 (72%) in the steps 1–9 group, and 220 (71%) in the steps 1–10 group were breastfed within 1 h of birth; these results did not differ significantly between groups. Prevalence of exclusive breastfeeding at age 14 weeks was 89 (29%) in the control group, 237 (65%) in the steps 1–9 group (adjusted PR 2·20, 95% CI 1·73–2·77), and 129 (42%) in the steps 1–10 group	Overall, our results show that provision of training in the Ten Steps to Successful Breastfeeding for health professionals is an effective strategy to enhance the practice of exclusive breastfeeding, even in settings with high breastfeeding initiation such as DR Congo. The intervention was also associated with a significantly reduced prevalence of diarrhea in the infants by age 24 weeks.

		(1·40, 1·13–1·74). At age 24 weeks, the prevalence of exclusive breastfeeding was 36 (12%) in the control group, 131 (36%) in the steps 1–9 group (3·50, 2·76–4·43), and 43 (14%) in the steps 1–10 group (1·31, 0·91–1·89).