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EFFECT OF COUNSELING IN UPTAKE OF BREAST FEEDING

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Abstract

Breastfeeding is a vital public health strategy that improves infant survival, cognitive development, and maternal health. Despite cultural acceptance in many societies, exclusive breastfeeding (EBF) rates remain suboptimal due to urbanization, illiteracy, and lack of structured support. Counseling by healthcare providers has shown promise in promoting optimal breastfeeding practices.

Objective: *To assess the effectiveness of structured breastfeeding counseling on early initiation and exclusive breastfeeding rates among first-time pregnant women.*

Study Design: *Randomized Controlled Trial (RCT).*

Study Setting: *Department of Gynecology and Obstetrics, Central Park Teaching Hospital, Lahore.*

Study Duration: *Six Months (November-2024 to April-2025).*

Methodology: *A total of 212 primigravida women aged 18–35 years, randomly allocated into two equal groups. Group A received structured breastfeeding counseling by a doctor, while Group B received routine antenatal care. Follow-up assessments were conducted at 1 hour, 15 days, and 2 months postpartum to record breastfeeding outcomes.*

Results: *Early initiation of breastfeeding was significantly higher in the counsel group (98.1%) compared to the control group (81.1%) (p = .000). Exclusive breastfeeding rates at 15 days and 2 months were also significantly greater in the counsel group (96.2% and 90.6%, respectively) than in controls (79.2% and 66.0%, respectively) (p = .000). Bottle feeding at 2 months was significantly lower in the counsel group (9.4%) compared to the control group (34.0%) (p = .000).*

Conclusion: *Structured breastfeeding counseling by healthcare professionals significantly improves both early initiation and exclusive breastfeeding rates. These findings support the integration of counseling into routine antenatal care to help achieve global breastfeeding targets and promote maternal and infant well-being.*

INTRODUCTION

The importance of breast feeding cannot be overemphasized upon which serves as the first nutritional supplement for the newborn. Globally the practice of breast feeding is least adopted among economically affluent societies, which may raise the infant mortality rates to 12%. Those who have not undergone breastfeed may have poor immunity and increased chance of contracting pneumonia and diarrhea. [1] Children not being breastfed put them at a risk for developing gastroenteritis, respiratory tract infections and neurological issues. It also jeopardizes the health of mothers by making them prone to breast cancer, ovarian cancer, type II diabetes and postpartum depression. Exclusive breastfeeding has been recognized as a key focus area.[2]

Breastfeeding is not only a fundamental aspect of infant nutrition but also plays a crucial role in fostering the mother-infant bond, enhancing cognitive development, and promoting long-term health benefits. [3] Studies have shown that breastfed infants exhibit better cognitive outcomes, higher intelligence quotient (IQ) scores, and improved academic performance later in life. Furthermore, breastfeeding has been linked to a reduced risk of obesity, metabolic syndrome, and cardiovascular diseases in adulthood, making it a significant public health priority. [4]

Healthcare professionals are essential in providing support to breastfeeding mothers. Various factors influence breastfeeding success, necessitating multi-level interventions to assist women in achieving their breastfeeding goals.[5] Evidence shows that skilled breastfeeding counseling from healthcare providers can effectively enhance breastfeeding rates. Research conducted by various healthcare professionals has shown that providing evidence-based education on breastfeeding equips mothers to better adapt with this changing dynamic and more compliance during breast feeding.[6]

This, however, puts a significant responsibility on the part of healthcare providers by dedicating an extra session and advocating the role of exclusive breastfeeding for the betterment of mother and child health which dictates the need to conduct a study in this regard. If we search literature, breastfeeding is a much more common practice in our society as compared to the developed world but due to urbanization and illiteracy we are still far from concluding whether improvement can be achieved by mutual informed decision making on part of attending health professional and mother. This further emphasizes the need for a trial to be conducted.[7]

The issue has recently gained renewed attention since global goal has recently been raised, aiming to increase the percentage of infants exclusively breastfed at 6 months from 50% by 2025 to at least 70% by 2030. [2] Furthermore, research will provide better understanding and address maternal distress and challenges faced by the lactating mothers which affect adherence to the practice of breast feeding.[8]

METHODOLOGY:

This study was conducted as a randomized controlled trial (RCT) in the Department of Gynecology and Obstetrics, Central Park Teaching Hospital, Lahore. The study population consisted of pregnant women aged 18 to 35 years who were experiencing their first pregnancy and met the specified inclusion criteria. Mothers who were transferred to an intensive care unit after delivery or whose infants were admitted to the NICU were excluded. A non-probability consecutive sampling technique was used to enroll eligible participants. A sample size of 212 was calculated using the WHO sample size calculator, based on an expected percentage of mothers who initiated breastfeeding immediately after birth in the counseled group versus the not-counseled group (96% and 84%, respectively), with a study power of 80% and a significance level of 5%.

Following approval from the hospital's ethical review board, pregnant women presenting at the outpatient department (OPD) were screened for eligibility. Those who met the inclusion criteria and provided informed consent were randomly allocated into two groups(106 cases in each group): the counseling group and the control group. The counseling group received breastfeeding counseling sessions conducted by a doctor, focusing on optimal feeding practices, problem-solving strategies, and the benefits of exclusive breastfeeding. The control group received

routine antenatal care without structured breastfeeding counseling.

To assess the impact of counseling on breastfeeding uptake, follow-up was conducted at multiple time points: 1 hour after birth, 15 days after birth, and 2 months after birth. During these follow-ups, data were collected on key breastfeeding outcomes, including the number of infants breastfed within the first hour of birth, the proportion of infants exclusively breastfed, and the number of infants who were bottle-fed. Data were documented using a structured proforma specifically designed for this study.

The collected data were entered and analyzed using SPSS version 25. Descriptive statistics such as mean and standard deviation were calculated for continuous variables like maternal age and the number of patients who underwent breastfeeding counseling. Categorical variables, including the gender of the child, breastfeeding efficacy, and bottle-feeding rates, were expressed as frequencies and percentages.

RESULTS:

A total of 212 pregnant women were included in the study, with their demographic profile summarized in Table 1. The majority of participants (76.4%) were between the ages of 18 and 30 years, while the remaining 23.6% were aged between 31 and 35 years. Regarding the gender distribution of the newborns, 93 (43.9%) were male and 119 (56.1%) were female. These baseline demographics were fairly balanced between the groups, ensuring comparability for subsequent intervention outcomes.

Table 2 presents the comparison of breastfeeding outcomes between the counsel (Group A) and non-counsel (Group B) groups. A statistically significant difference was observed in early initiation of breastfeeding, with 98.1% of mothers in the counsel group breastfeeding within the first hour compared to only 81.1% in the non-counsel group ($p = .000$). Similarly, exclusive breastfeeding at 15 days postpartum was significantly higher in the counsel group (96.2%) than in the non-counsel group (79.2%) ($p = .000$). At two months, exclusive breastfeeding remained significantly more common in the counsel group (90.6%) compared to the non-counsel group (66.0%) ($p = .000$). In contrast, bottle feeding at two months was more prevalent in the non-counsel group (34.0%) than in the counsel group (9.4%) ($p = .000$). These findings underscore the effectiveness of structured breastfeeding counseling in improving both early and sustained breastfeeding practices.

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TABLE 1: DEMOGRAPHICS OF THE PATIENTS(N=212)

Variable		Count	%
Maternal age(years)	18-30	162	76.4
	31-35	50	23.6
Child gender	Male	93	43.9
	Female	119	56.1

TABLE 2: COMPARISON OF COUNSEL AND NON-COUNSEL GROUPS

Variable	Group	Group-A (Count %)	Group-B (Count %)	Total (Count %)	Chi-Square p-value
Breastfed within 1hr	Yes	104 (98.1%)	86 (81.1%)	190 (89.6%)	.0001
	No	2 (1.9%)	20 (18.9%)	22 (10.4%)	
Exclusive BF at 15 days	Yes	102 (96.2%)	84 (79.2%)	186 (87.7%)	.0001
	No	4 (3.8%)	22 (20.8%)	26 (12.3%)	
Exclusive BF at 2 months	Yes	96 (90.6%)	70 (66.0%)	166 (78.3%)	.0001
	No	10 (9.4%)	36 (34.0%)	46 (21.7%)	
Bottle Feeding at 2 months	Yes	10 (9.4%)	36 (34.0%)	46 (21.7%)	.0001
	No	96 (90.6%)	70 (66.0%)	166 (78.3%)	

DISCUSSION:

Breastfeeding is widely regarded as the most effective and natural way to ensure optimal growth, development, and health for infants. The World Health Organization (WHO) and UNICEF strongly recommend early initiation of breastfeeding within the first hour of birth and exclusive breastfeeding for the first six months of life. Despite global advocacy, the practice of exclusive breastfeeding (EBF) remains suboptimal, particularly in rapidly urbanizing societies where misinformation, lack of support, and cultural barriers persist. In Pakistan, breastfeeding is generally accepted culturally, yet effective practice is hindered by inconsistent counseling and low awareness. Our study was conducted to determine whether structured, doctor-led antenatal counseling could significantly improve early initiation and exclusive breastfeeding practices in first-time mothers. The results clearly demonstrate the effectiveness of such interventions and reinforce their necessity in standard maternal healthcare.

In terms of baseline characteristics, the majority of our study participants were between 18–30 years of age (76.4%), which mirrors the reproductive age group targeted in similar international studies. For instance, AlQurashi et al. [9] (2023) in Saudi Arabia, Gashaw et al [10] (2025) in Ethiopia, and Koli et al. [11] (2021) in India all enrolled mothers in comparable age brackets, ensuring that findings across studies are demographically aligned and comparable. The gender distribution of newborns in our study (43.9% male, 56.1% female) was also well-balanced, reducing bias from gender-related feeding practices that are occasionally observed in South Asian and African settings. This demographic consistency across global studies lends strength to the comparability of outcomes and reinforces the external validity of our findings.

Our study revealed that early initiation of breastfeeding (within the first hour of birth) occurred in 98.1% of mothers in the intervention group compared to 81.1% in the control group ($p < 0.001$). These results are notably higher than those reported in AlQurashi et al [9] (2023), where early initiation was 80.8% in the counseled group and 65.4% in controls. Similarly, Gashaw et al (2025) [10] documented early initiation in 88.4% of the intervention group and 74.5% of controls, while Koli et al. (2021) [11] reported 91.85% in the counseled group. These consistent findings across countries and healthcare settings confirm the positive effect of structured counseling on timely breastfeeding initiation.

Exclusive breastfeeding rates at 15 days and two months were also significantly improved in our intervention group, with 96.2% and 90.6% adherence, respectively, compared to 79.2% and 66.0% in the control group. These improvements align closely with findings from Gashaw et al[10]. (2025), who reported a 6-week EBF rate of 83.8% in the intervention group versus 65.9% in controls. Koli et al. [11] (2021) also documented high EBF adherence (86.52%) after prenatal counseling. AlQurashi et al (2023)9 found that EBF at 6 weeks was significantly higher in the intervention group (74%) than in controls (58.7%), while Owolabi et al. [12] (2020) in Nigeria demonstrated a post-intervention knowledge score of 90.5% regarding EBF, compared to a baseline of 45.9%. The Nigerian study also showed significant improvement in practice, highlighting the effectiveness of both peer and professional counseling in improving breastfeeding outcomes, especially in under-resourced settings.

The psychological impact of counseling on maternal confidence and ability to overcome early breastfeeding challenges has also been well-documented. In Iran, Shafaei et al. [13] (2020) reported significantly higher self-efficacy scores in the intervention group (59.8 ± 6.2) compared to the control group (51.4 ± 7.8), along with a significant reduction in breastfeeding problems (26.7% vs. 58.3%). These findings complement our results, as our intervention group exhibited reduced bottle-feeding rates at two months (9.4%) compared to controls (34.0%), suggesting better adaptation to breastfeeding challenges and stronger adherence due to counseling.

While our intervention was led by medical professionals, peer counseling models also demonstrated strong efficacy. Shaw et al[14] (1999) observed significantly improved breastfeeding initiation and duration among low-income rural mothers in the USA following a peer counseling program. Similarly, Sirois et al[15] (2023) reported higher breastfeeding continuation (89.8% vs. 78.9%) and satisfaction (98.2% vs. 83.6%) with peer support

in an urban clinic population. These findings suggest that a hybrid model involving both professional and peer counseling could provide scalable and culturally adaptable interventions, particularly in countries like Pakistan where the burden on formal healthcare providers is high.

The global relevance of structured counseling interventions is further illustrated by Aldana-Parra et al, [16] who designed a unique counseling model based on Carl Rogers' humanistic theory for overweight and obese women. Though outcome data from this study is pending, its inclusion highlights growing interest in personalized, theory-based counseling models that cater to specific maternal health needs. The adaptability of counseling interventions—whether structured, peer-led, antenatal, or postnatal—makes them powerful tools in addressing diverse barriers to breastfeeding.

In summary, the collective evidence from our study and other international studies provides robust support for the incorporation of structured breastfeeding counseling into standard antenatal care. Whether in urban or rural settings, across continents from Asia to Africa to North America, the consistent improvements in early initiation and exclusive breastfeeding rates affirm the global relevance and effectiveness of such interventions.

Our findings hold particular significance in the South Asian context, where despite strong cultural acceptance of breastfeeding, gaps in education and health system integration continue to undermine optimal practices.

Given that the WHO has set a global target to increase the rate of exclusive breastfeeding at 6 months to at least 70% by 2030, the findings of our study underscore the importance of early, evidence-based, and structured educational efforts. These should be integrated into existing maternal and child health programs, potentially through task-shifting to include midwives, nurses, and community health workers, alongside physicians. A national strategy to promote structured counseling sessions, possibly supplemented by peer-led community initiatives, could help bridge the gap between knowledge and practice and contribute meaningfully to maternal and infant health outcomes.

CONCLUSION:

Structured breastfeeding counseling by healthcare professionals significantly improves both early initiation and exclusive breastfeeding rates. These findings support the integration of counseling into routine antenatal care to help achieve global breastfeeding targets and promote maternal and infant well-being.

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