

Effect of peer counselors on exclusive breast feeding practices- A non randomized controlled trial in Belgaum district, Karnataka

P.R. Gunagi^{1*}, V.A. Naik² and M.D. Mallapur²

¹Department of Community Medicine, Belgaum Institute of Medical Sciences, Dr. B.R. Ambedkar Road, Belgaum-590001 Karnataka, India and ²Department of Community Medicine, Jawaharlal Nehru Medical College, Belgaum, Karnataka, India

Abstract: *Objectives:* To study the effect of peer counselors on exclusive breast feeding practices. *Methodology:* The present non randomized controlled trial was conducted in PHC area; district Belgaum Karnataka during the period of November 2005 to Feb 2007. Amongst the two subcentres selected, one was taken as the study area and other as the control. Peer counselors selected from different localities of subcentre vantamuri (study area) underwent training on optimal breastfeeding practices, were recruited to give visits at regular intervals to mothers. All the mothers in the study and control group were visited independently by the investigator by making home visits once a month to know the breast feeding practices. *Results:* 60 women were enrolled in each group. The prevalence of Exclusive breastfeeding at 6 months was 40/60(66.67%) in the intervention group and 22/60(36.67%) in the control group (p=0.001). For the secondary outcomes, more number of mothers in the study group administered colostrum and initiated early breastfeeding. *Conclusion:* Peer counseling effectively increases early initiation, colostrum feeding, exclusive breastfeeding practices in the community

Keywords: Peer counseling, exclusive breastfeeding

Introduction

Breastfeeding is an unequalled way of providing ideal food for the healthy growth and development of infant. It provides the best health benefits when started immediately after birth and continued exclusively for the first 6 months of life. The promotion, protection and support of breastfeeding are an exceptionally cost effective strategy for improving child survival and reducing the burden of childhood diseases particularly in developing countries [1]. To improve breastfeeding practices, global initiatives have concentrated on hospital policies. Hospital based strategies fail to reach those areas where there are predominant home deliveries [2-3].

According to NFHS -3 only 23.4% of infants are breastfed within one hour after birth, 46.3% are exclusively breastfed [4]. In community survey conducted in PHC vantamuri exclusive breastfeeding at 6 months was as low as 14%. Several studies have demonstrated counseling by peer counselors to be effective method for increasing the rate of initiation and duration of

breastfeeding [2-3,5-6]. Hence this study was undertaken in PHC vantamuri where EBF is as low as 14%.

Material and Methods

The study was conducted in vantamuri PHC area, district Belgaum. Pregnant women from two subcentres were selected for study.

Sample size: Survey conducted in the vantamuri village showed that exclusive breastfeeding practices were as low as 14%. Presuming that counseling by the counselors will increase this to 44, i.e. effect size of 30, with $\alpha = 0.05$, power of 90 and 20 dropout rate, sample size was arrived at 60. Thus 60 pregnant women from each subcentre were selected for the study. Pregnant women who have completed 32 wks of gestation and willing to stay in area for at least 6 months after delivery were included in the study. Pregnant women with history of multiple births, congenital anomalies and birth weight < 2 kgs, known HIV infected mothers were excluded.

Study intervention:

Selection of peer counselors: Women with personal breast feeding experience, volunteering to help mothers to breastfeed, residing in the intervention area, and having a good rapport with the community were selected.

Training: A total of 7 counselors were identified from the community and were trained on optimal breastfeeding practices. Pre and post training evaluation of the counselors was done and those with unsatisfactory performance were further trained. Each counselor provided support for 5-10 mothers at scheduled intervals. Peer counselors made home visits and counseled mothers regarding optimal breastfeeding practices. Informed consent was obtained both from the pregnant women and the counselors. Eligible pregnant women were enrolled from Nov 2005 to April 2006 and followed up for 6 months at scheduled intervals. The name and address of the women was intimated to the peer counselors for counseling.

Counseling: Peer counselors visited the enrolled mothers in the study group at regular intervals as follows

Before delivery : 2 visits
 After delivery : First month-4 visits and 2nd to 6 months fortnightly visits.
 At each of the visit counseling was given for 30 minutes

Reinforcement of training: Reinforcement of training of counselors with respect to knowledge and skills regarding breastfeeding were ensured every month by investigators

Analysis plan: Statistical analysis was performed by applying chi-square test. Matching was done in both the groups with respect to socio-demographic characteristics except the educational status.

Results and Discussion

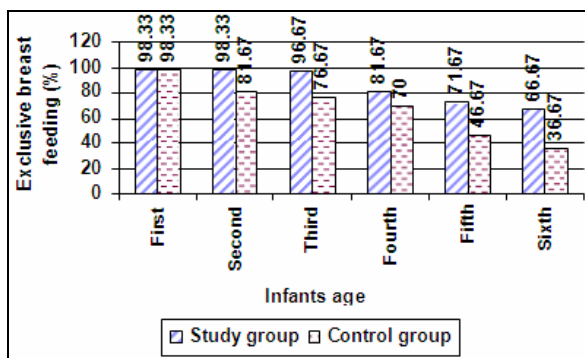
Majority of the study participants in both the groups were illiterate and of low socioeconomic status. Most of them were in the age group of 20 and 24 years. (Table1) Significantly more number of mothers 40 [66.67%] in the study group practiced exclusive breastfeeding when compared with the control group 22[36.67%] p<0.001. Administration of prelacteal feeds was significantly higher in the control group 38 [63.3%] than the intervention group 18 [30%] p<.000.

Characteristics	Study group	Control group
Age Mean± SD	24.15 ± 3.53	23.55±3.72
Education		
Illiterate	46(76.7%)	33(55%)
Primary	8(13.3%)	12(20%)
Secondary	6(10%)	15(25%)
Socioeconomic status		
Class I	Nil	nil
Class II	1(1.7%)	2(3.3%)
Class III	6(10%)	5(8.3%)
Class IV	33(55%)	35(58.3%)
Class V	20(33.3%)	18(30%)
Antenatal visits		
<3	6(10%)	9(15%)
>3	54(90%)	51(85%)

Feeding practices	Study group	Control group	P value
Administration of colostrum	53(88.3%)	30(50 %)	0.000
Administration of prelacteal feeds	38 (63.3%)	18(30%)	0.000
Initiation of breastfeeding within one hour	39 (65%)	19(31.67%)	0.001

Sugar water was the most common prelacteal feed given, followed by sugar water and honey. In the present study more number of mothers in the intervention group fed colostrum to the babies [88.3%] when compared with the control group

[50%] p = 0.000. More number of mothers in the intervention group 39 [65%] initiated breastfeeding within one hour than the control group 19[31.67%] p=0.001.

Fig-1: Proportion of mothers who exclusively breast fed their infants

Breastfeeding is a highly cost effective disease prevention strategy. To improve breastfeeding practices many hospital based strategies were promoted. Although hospital based programme have significant impact on breastfeeding outcomes community based support of breastfeeding is also needed. Most of the mothers breastfeed, but they rarely practice exclusive breastfeeding. Peer counseling is being used worldwide for various purposes, including the social and informational support that mothers need for successful initiation and maintenance of breastfeeding.

This study had significant impact on exclusive breastfeeding practices. At 6 months 66.7% of mothers practiced EBF in intervention group than the control (36.67%). There is significant drop in rate of EBF in control group from 4th to 6th month Maternal characteristics did not significantly influence intervention efficacy. Various studies showed improved breastfeeding

practices among women who received timely counseling. A study conducted in Bangladesh on peer counseling showed prevalence of EBF at 5 months was 70% for intervention group and 6% for control group [2]. Similarly a study conducted by Morrow et al in Mexico showed significant increase in breast feeding exclusivity and duration [3].

Other outcomes such as no prelacteal feeds, administration of colostrum and early initiation of breastfeeding were significantly high in study group. Similar results were found in study done at Bangladesh and Haryana [2,7]. Thus community based approaches are needed for early counseling and follow up. Peer counseling is less costly outreach model than use of professional staff. In general peer counselors volunteer to help mother's breastfeed are respected, trusted and responsive to the needs of others.

Limitation of study: Matching with respect to socio-demographic characteristics and educational status of the two groups is not perfect as it is a non- randomized trial.

Conclusion

Counseling by peer counselors had significant impact on breastfeeding practices. The government may think of extending the policies of baby friendly hospital initiative into the community by creating cadre of peer counselors.

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*All correspondences to: Dr. Praveena R. Gunagi, Department of Community Medicine, Belgaum Institute of Medical Sciences, Dr. B.R. Ambedkar Road, Belgaum-590001 Karnataka, India. E-mail ID: sudhirpraveena@gmail.com