

Short Communication

EFFECTIVENESS OF AN INFORMATION BOOKLET ON KNOWLEDGE REGARDING THE IMPORTANCE OF BIRTH SPACING

Tintu Chacko¹ & Philomena Fernandes²

¹ 2nd year MSc Nursing student, ² Assoc. Prof. & H.O.D, Department of Obstetric & Gynecological Nursing, Nitte Usha Institute of Nursing Sciences, Deralakatte, Mangalore - 575 018

Correspondence:

Tintu Chacko

Mobile : 97474 60413, E-mail : alwayztiyara@yahoo.com

Abstract :

The study was conducted to assess the effectiveness of an information booklet on knowledge regarding the importance of birth spacing among primi para mothers from 01.08.2011 to 31.10.2011. An evaluative approach with one group pre test post test design was used for the study. 60 samples were selected using purposive sampling method. The present study was conducted in Justice K.S Hegde Charitable Hospital, Mangalore. The collected data were analyzed using descriptive and inferential statistics. Distribution of primipara mothers according to their level of knowledge showed that 49 (81.7%) had poor knowledge score [score range 0-12], 11 (18.3%) had average knowledge [score range 13-25] and none of them had good knowledge [score range 26-37]. The Mean knowledge score in the pre-test was 7.96 which had increased after administration of the information booklet, with mean knowledge score in the post-test by 31.15. A significant difference between pre-test and post-test knowledge was found ($t=28.945$, $P<0.05$) among the primi para mothers by providing an information booklet. There was significant association between the level of knowledge and demographic variables such as educational status, income and previous knowledge.

Keywords: Birth spacing, primipara mothers and knowledge.

Introduction :

It is the privilege of married couples who are able to bear children to provide mortal bodies for the spirit children of God, whom they are then responsible to nurture and rear. The decision as to how many children to have and when to have them is extremely intimate and private and should be left between the couple and the Lord. Birth Spacing is important in child growth and development. The child is likely to receive his full share of love, care including nutrition he needs, when the Family size is small & births are properly spaced. Infants and mothers are extremely important part of the society as it lays the foundation for good nation. To achieve this it is necessary to improve the knowledge regarding child spacing. It is also well known that children born close together do not usually develop physically and mentally as well as children born three or more years apart.

Birth spacing is the interval between births that provides the greatest health, social and economical benefits for family. Enabling couples to determine when they will have children is vital to safe motherhood and healthy children.

Birth spacing refers to the time interval from one child's birth date until the next child's birth date. However, researchers agree that 2 ½ years to 3 years between births is usually best for the well being of mother and her children. Infants and children under five years of age, births spaced at least 36 months apart are associated with the lowest mortality risk. Likewise birth to conception intervals of less than 6 months as well as abortion, pregnancy intervals of less than 6 months are associated with increased risk of preterm births, low birth weight and small for gestational age as well as are associated with increased risk of maternal mortality and morbidity.

The study on birth spacing will be helpful for women to know their existing knowledge and also helpful for spouse and other members of the family because they will also be able to share and obtain the knowledge on birth spacing. The researcher is interested on this topic because, Most of the women do not make decision on family planning, their husbands take decision on family planning, contraceptive prevalence rate is also low in our country, many women give birth within 24 months of previous birth. This study

will help to assess the knowledge on birth spacing on the reproductive age married women, findings will help to conduct awareness program on birth spacing to reproductive age married women.

A descriptive study conducted by Nirmala Sapkota , Rebecca Sinha , Radha Devi Bangdel in Imadol , on knowledge and attitude on birth spacing among reproductive age among married women. The number of respondents were 50. Structured and close ended Questionnaire was prepared to collect the data. The study shows that most of the women had poor knowledge and attitude on birth Spacing.

A DHS analysis 1999 Guatemala on A lack of knowledge about methods and about source of methods continues to hamper women from spacing their children. For the instance in the Bolivia 1998 DHS 27% of women under 30 indicated that they lacked knowledge of methods. In Guatemala in 1999 the rate was 28.1% in Nigeria in 1999 it was 15.6%.

Methods :

In order to accomplish the main objective of assessing the effectiveness of an information booklet on knowledge in use of contraceptive methods for birth spacing among primipara mothers, one group pre test post test design which is a pre experimental design was adopted. The study was conducted in Justice K.S Hegde Charitable Hospital, Mangalore. Purposive sampling technique was used for selection of samples 60 samples.

Pre-test was administered to the participants who were admitted in the postnatal ward using structured knowledge questionnaire. The researcher collected the demographic data along with this. It took approximately 30mts. After pretest researcher distributed the information booklet to the participants. After 5 days of intervention, the investigator administered the post test to assess the level of knowledge of mothers using the same structured knowledge questionnaire. The collected data were analyzed using descriptive and inferential statistics.

Results :

Main findings are discussed under the following headings

SECTION 1: DESCRIPTION OF SAMPLE CHARACTERISTICS

Distribution of primi para mothers according to the demographic characteristics

G 56.7 %(34) of mothers were in the age group of 18-23 years, 43.3% in the age group of 24-29 years.

G 93.3 %(56) of them come under non-working category and 6.7% (4) of the postnatal mothers were working and 0% were working as health personnel.

G 56.7% (34) comes under Hindu, 31.7% (19) comes under Muslim, 11.7% (7) comes under Christian and 0% comes under other category.

G 71.7% (43) comes under joint family, 25% (15) comes under nuclear family, 1.7% (1) comes under extended family and 1.7% (1) comes under other category.

G 50% (30) comes under urban area and 50% (30) comes under rural area.

SECTION II: KNOWLEDGE OF PRIMIPARA MOTHERS ON IMPORTANCE OF BIRTH SPACING :

Distribution of pretest and post test knowledge scores of the primi para mothers on importance of birth spacing

n=60

SCORE RANGE	FREQUENCY		PERCENTAGE	
	pretest	Posttest	pretest	Post test
Poor (0-12)	49	0	81.7	0
Average (13-25)	11	12	18.3	20
Good (26-37)	0	48	0	80

The data presented in the table displays the frequency distribution of primipara mothers according to their pretest knowledge scores. The data showed that 49 (81.7%) had poor knowledge score [score range 0-12], 11 (18.3%) had average knowledge [score range 13-25], 0 (0%) had good knowledge [score range 26-37] and according to their posttest knowledge score the data shows that 0% (0) had poor knowledge, 12 (20%) had average knowledge, 48 (80%) had good knowledge.

Area wise percentage of pretest and post test knowledge scores and gain scores of primipara mothers

n=60

Sl.No	Areas	Mean percentage scores		Gain scores	
		Pretest	Posttest	Actual	Modified Gain
1.	Definition & Importance	68.25	93.75	25.5	0.803
2.	Natural family planning methods	40.25	89.28	49.03	0.82
3.	Barrier methods	40.27	94.00	53.73	0.89
4.	Intrauterine Devices	14.00	85.83	71.83	0.83
5.	Hormonal Methods	8.33	93.05	84.72	0.92
6.	Emergency contraceptive Method	16.67	95.00	78.33	0.93
7.	Injectable Steroids	8.33	90.00	81.67	0.89

The data presented indicate that the post test mean percentage knowledge scores in all content areas were higher than the pretest mean percentage knowledge scores. The modified mean percentage score is also good in all the areas and which shows the information booklet was effective.

SECTION III: EFFECTIVENESS OF INFORMATION BOOKLET

Mean, Mean Difference, Standard error of Difference, and 't' value of pre-test and post -test knowledge scores of primipara mothers.

n=60

	Mean	Mean difference	SD	Df	t' value	P' value (LOS)
Pretest	7.96	23.19	6.204	59	28.945	0.000
Posttest	31.15					P<0.05 HS

 $t'_{tab(59)} = 1.671$ $p < 0.05$ level

HS- Highly significant

The data shows that the mean post-test knowledge scores of primipara mothers were significantly higher than their mean pretest knowledge scores t_{tab} (59) = 1.671, and calculated value $t' = 28.945$ $p < 0.05$ indicating there is significant difference pretest and post test knowledge scores. Hence research hypothesis H1 was accepted.

The data presented in the following table shows that the mean post-test knowledge scores of the primi para

mothers were significantly higher than the mean pre-test knowledge. The analysis shows that the calculated value in all the areas are greater than the table value ($p < 0.05$). This shows that there was significant gain in the knowledge in all the areas of importance and methods of contraceptive methods. Therefore the information booklet has been an effective method of increasing the knowledge of the mothers.

Chi square value for association between the knowledge level and selected demographic variables like education (χ^2 cal = 4.03), Income (χ^2 cal = 15.97) and Previous knowledge (χ^2 cal = 6.9) were greater than table value at 0.05 level of significance. Hence research hypothesis H2 was accepted. Chi square value for association between the knowledge level and selected demographic variables like age (χ^2 cal = 0.51), occupation (χ^2 cal = 0.013) were less than table value at 0.05 level of significance. Hence research hypothesis H2 was rejected.

Discussion :

The Knowledge of primi para mothers on importance of birth spacing conducted by Mrs. Nirmala Sapkota & Mrs. Rebecca Sinha in Imadol health centre regarding knowledge and attitude on birth spacing among married women, there were 50 respondents and among them 68% had inadequate knowledge, 20% moderate knowledge and 12% had adequate knowledge.

The Effectiveness of an information booklet was supported by the findings in a study which was conducted by Saeed, G.A., Fakhar, S., Rahim, F., and Tabassum, S. (2008.) regarding effect of educational leaflets and counseling on contraceptive use. 600 women were done in two groups matched for age, parity and socioeconomic status at Pakistan. At their follow-up visit (8–12 weeks) postpartum, 19 (6.3%) women in the nonintervention group had started contraceptive use, whereas 153 (50.8%) had decided to start contraception in the next 6 months, and 129 (42.8%) women were still undecided. In the intervention group, 170 women (56.9%) had started using contraceptives, whereas 129 (43.1%) had decided to start contraceptive use in the next 6 months.

Area-wise mean difference, standard deviation and 't' value of pretest and posttest knowledge scores. n=60

Sl. No	Areas	Mean knowledge scores		Mean difference	Df	SD	't' Value	P value
		Pre test	Post -test					
1	Definition & Importance	2.73	3.75	1.02	59	1.28	6.14	.000 P<0.05HS
2	Natural family planning methods	1.61	6.25	4.64	59	1.32	27.04	.000 P<0.05 HS
3	Barrier methods	0.70	8.46	7.76	59	2.18	21.47	.000 P<0.05 HS
4	Intrauterine Devices	2.41	6.85	4.44	59	1.69	28.11	.000 P<0.05 HS
5	Hormonal Methods	0.25	5.58	5.33	59	0.93	44.28	.000 P<0.05 HS
6	Emergency contraceptive Method	0.16	0.95	0.79	59	0.45	13.35	.000 P<0.05 HS
7	Injectable Steroids	0.08	1.80	1.72	59	0.55	23.95	.000 P<0.05 HS

*t_{tab} (59) = 1.671, p<0.05

HS= Highly Significant

SECTION IV: ASSOCIATION BETWEEN PRETEST KNOWLEDGE SCORE AND SELECTED DEMOGRAPHIC DATA.

Variables	< median	median	² value	² _(tab)	Df	LOS
1. EDUCATION						
No formal education	0	0	4.03	3.841	1	0.044 P<0.05 S
Primary school (1-7) & High school (8-10)	23	17				
Secondary School (PUC)& graduation and above	6	14				
2. INCOME						
<3000	10	3	15.97	3.841	3	0.001 P<0.05 S
3001-5000	19	16				
5001-7000	0	11				
7001-9000	0	1				
>9000	0	0				
3. PREVIOUS KNOWLEDGE						
Yes	14	25	6.9	3.841	1	0.009 p < 0.05 S
No	15	6				

Conclusion :

There may be very personal reasons why time is needed between pregnancies. Planning enough time between pregnancies increases the chance of a good outcome for the mother and each of her babies. If a parent has experienced a miscarriage or loss of a child, they may need time to grieve, evaluate their risks and work through their fears and anxieties before considering a future pregnancy.

A couple or their child may have a medical condition which needs to be managed before they are able to begin or continue childrearing. Or, a woman may be in her later reproductive years and be feeling the need to have her pregnancies spaced closer together in order to achieve the family size she desires. A planned pregnancy is more likely to have a good outcome for the mother and baby.

References :

1. P.A. Gallagher and T.H. Powell. Meeting Special needs – topics in early childhood special Education. *Journal of Indian Pediatrics* (1989); 31(8): 24-37.
2. Nirmala Sapkota , Rebecca Sinha , Radha Devi. Knowledge and attitude on birth spacing among reproductive age among married women. *Indian journal of obstetrics and gynecology* (2008); 60(6): 585-593
3. DH survey analysis. A lack of knowledge about methods and source of contraceptives;1999
4. Saeed, G.A., Fakhar, S., Rahim, F., and Tabassum, S. Change in trend of contraceptive uptake – effect of educational leaflets and counseling. *Journal of Maternal and Child and Health* (2008); 34(8): 377-38. Available from: URL: http://www.accesstohealth.org/toolres/pdfs/ACCESSFP_PFPbiblio.pdf
5. Dehne, K. L. Knowledge, attitude and practices relating to child spacing methods in northern Burkina Faso. *Journal of Health, Population and Nutrition* (2003); 21(1): 55–66.
6. Available from: URL: http://www.accesstohealth.org/toolres/pdfs/ACCESSFP_PFPbiblio.pdf
7. Sarah B. Family planning advice and postpartum contraceptive use among low income women in Mexico. *International Family Planning Perspectives* (March 2007); 33(1): pp. 6-12. Available from: URL: <http://www.jstor.org/pss/30039187>
8. Janowitz B, Nichols D. Infant and child survival and contraceptive use in the closed pregnancy interval. *Soc Sci Med* (1983); 17(2): 113-118. Available from: URL: <http://www.ncbi.nlm.nih.gov/pubmed/6836340>
9. Yeakey MP, Muntifering CJ, Ramachandran DV, Myint Y, Creanga AA, Tsui AO. How contraceptive use affects birth intervals. *Epub* (2010); 32(1):152-174. Available from: URL: <http://www.ncbi.nlm.nih.gov/pubmed/19852410>
10. Duong, D. V., Lee, A. H., and Binns, C. W. Contraception within six-month postpartum in rural Vietnam: Implications on family planning and maternity services. *European Journal of Contraception and Reproductive Health Care* (2005); 10(2): 111–118. Available from: URL: http://www.accesstohealth.org/toolres/pdfs/ACCESSFP_PFPbiblio.pdf
11. Adinma, J. I., Agbai, A. O., and Nwosu, B. O. Contraceptive choices among Nigerian women attending an antenatal clinic. *Advances in Contraception* (1999); 14(2): 131–145. Available from: URL: http://www.accesstohealth.org/toolres/pdfs/ACCESSFP_PFPbiblio.pdf
12. Kershaw, T, et. al. Short and long-term impact of adolescent pregnancy on postpartum contraceptive use: Implications for prevention of repeat pregnancy. *Journal of Adolescent Health* (2003); 33(7): 359–368. Available from: URL: http://www.accesstohealth.org/toolres/pdfs/ACCESSFP_PFPbiblio.pdf