Research Paper Medical Sciences

Effectiveness of Information Booklet on Knowledge Regarding Milestone Development of Infants Among The Primigravid Women in A Selected Hospital in Mangalore

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ABSTRACT

Child development refers to the process in which children go through changes in skill development during predictable time periods called developmental milestones. Developmental delay occurs when children have not reached these milestones by the expected time period.1 Mothers are the primary care giver, if they possess adequate knowledge regarding milestone development of infants through information booklet, then they can apply the same in their practice. A evaluative approach with pre-experimental (one group pre-test post-test) design was used for the study. The participants were 50 primigravid women selected through purposive sampling. Pre-test was conducted using structured knowledge questionnaire regarding milestone development of infants. An information booklet regarding developmental aspects of infants were administered for the group after the pretest. After 7 days a post test was conducted. Paired 't' test was done and found that the calculated 't' value 21.904 which was higher than the table value 't49'= 2.00 significant at 0.05 level of significance. The results showed, the effectiveness of information booklet in the enhancement of knowledge regarding milestone development of infants.

KEYWORDS | Knowledge; Primigravid women; Milestone development; Information booklet

INTRODUCTION:

Growth monitoring and promotion is an important aspect of child care. Global statistics says that 600 million are born with or acquire a disability within their lifetime. Of this 600 million, UNICEF has estimated that around 150 million are children.[2] Child care in a right perspective is very important as children are our future generation. Care implies not only to provide children with food and shelter but also monitoring their milestones development.[3] Parents need to understand the growth and development in-order to monitor child's progress, to identify delays or abnormalities in development. It is essential for the mothers to understand the baby's milestones and acceptable variations in normal development patterns to recognize a possible developmental delay.

OBJECTIVES:

a) To determine the level of knowledge among primigravid women regarding milestone development of infants.
b) To evaluate the effectiveness of information booklet on milestone development of infants in terms of post test knowledge scores.
c) To find the association between pre-test knowledge scores of primigravid women with selected baseline variables (age, religion, type of family, education, occupation, income of family, any previous information received, source of information and previous experience of caring for an infant).

MATERIALS AND METHODS:

1. **Setting:** The study was conducted in the antenatal OPD of Father Muller Medical College Hospital, Mangalore
2. **Research approach:** The approach used for this study was evaluatory approach.
3. **Research design:** Pre-experimental (one group pretest post test)
4. **Sample:** Primigravid women attending antenatal OPD in their 3rd trimester of pregnancy.
5. **Sampling technique**: Purposive sampling.
6. **Inclusion criteria:**

- All mothers of hospitalized under five children.
- Mothers who are willing to participate in the study

7. **Exclusion criteria**

- Mothers in 1st and 2nd trimester attending antenatal OPD.
- All multiparous women attending antenatal OPD.

8. **Data collection instruments**

- Structured knowledge questionnaire on milestone development of infants.
- Information booklet on milestones of infants.

9. **Description of tool:**

The tool consisted of two sections:

Section 1: Baseline proforma consisted of 9 items to obtain information regarding age, religion, type of family, educational qualification, occupation, any previous information received, source of information and any previous experience of caring for an infant.

Section 2: This section consisted of 24 items and the items which includes general information, physical development, gross motor development, fine motor development, psychosocial and sensory development.

Information Booklet : The information booklet was prepared on the based on literature review of research articles, journal articles,books, internet browsing, discussion with experts and personal experience of the investigator.

10 . Data collection procedure :

The investigator obtained permission to conduct the study from the concerned hospital authority and informed consent was taken from the subjects. Purposive sampling was used for the study. Data was collected through a structured knowledge questionnaire for assessing the level of knowledge regarding milestone development of infants from 50 primigravid women. On the same-day after collecting the questionnaire, information booklet was administered for further reference and study. The subjects were asked to go through the information booklet and were informed that post-test would be conducted after 7 days when they are coming for the next visit. The Post-test was conducted using the same knowledge questionnaire. The data collected was compiled for data analysis.

DATA ANALYSIS

The data was analyzed presented and under the following heading:

SECTION 1: Description of sample characteristics by using frequency and percentage distribution.

- Majority of the subjects (84%) were in the age group of ≤25 years.
- Most of the primigravid women 46% from Nuclear family , 38% from joint family and 8% from extended family.
- In terms of occupation 74% of subjects were homemakers.
- Regarding educational status 10% of subjects were with no formal education, 28% with primary education, 26% with secondary education and another 26% with PUC education.
- 54% of subjects received previous information regarding milestone development of infants in which only 11.11% received information from health professionals.

SECTION 2: Knowledge level of primigravid women regarding milestone development of infants.

In the pre-test 46% has poor knowledge, 42% has average knowledge, 8% has very poor knowledge and 4% had good knowledge regarding milestone development of infants. Whereas in the post test majority of the subjects 60% had good knowledge, 26% had excellent knowledge, 14% had average knowledge regarding milestone development of infants.

Area wise mean pre-test and post test knowledge scores of primigravid women regarding milestone development of infants.

The mean percentage knowledge scores of the pre-test and post test is maximum in the area of general information 49% and 89.75% respectively whereas the mean percentage knowledge score is minimum in the area of gross motor development 26.66% in the pre-test and 62.66% in the post test. The mean difference was 40.75% in the area of general information, 34.66% in the area of physical development, 25.33% in fine motor development, 36% in gross motor development, 32.25% in the area of sensory development and 38.5 % in psychosocial development.

SECTION 3: Effectiveness of information booklet on milestone development of infants

The mean post test knowledge score ($_2$=17.820) was higher than the mean pre-test knowledge score ($_1$=9.120). The computed 't' value (t_{49}= 21.904) was higher than the table value (t_{49}= 2.00) with p<0.01. This indicated that information booklet on milestone development of infants was effective in increasing the knowledge level of primigravid women.

Area wise mean knowledge score, mean difference, standard deviation and 't' value on pre-test and post-test knowledge .

The information booklet was effective in increasing the knowledge of primigravid women regarding milestone development of infants in all areas: general information (t=17.045), physical development (t =7.436), fine motor development (t =6.73), gross motor development (t =10.871), sensory development (t =6.779) and psychosocial development (t =8.778) respectively.

Section 4: Association between pre-test knowledge score of primigravid women and baseline variables.

There was no significant association between the pre-test knowledge score and selected variables .

Discussion

Infancy is traditionally designed as the period from birth to one year of age of age. Growth monitoring is very important in child care in order to identify delay or stunted growth and development and so to promote normal growth and development in infants. The information booklet regarding milestone development of infants is the best weapon to improve the knowledge and helps in initiating prevention of developmental abnormalities.

Sample characteristics

These findings are supported by a comparative study conducted to assess the knowledge on selected aspects of growth and development of infants among primiparae and mulitipare attending immunization clinic at Rajeev hospital where it was found that among the primiparae 84% of primiparae are from nuclear family and 48% of them were homemakers. In terms of education status 20% is with no formal education, 32% with middle school, 14% with SSLC. Neither the graduates nor women with less education were aware of the growth and development of infants. This findings stress on the need for learning programs.[4]

Knowledge of primigravid women regarding milestone development of infants

The results is congruent with a study on assessment of knowledge regarding selected aspects of growth and development of infants among mothers, where 62% were having inadequate knowledge, 26% were having moderate adequate knowledge and 12% with adequate knowledge.[5]

Effectiveness of information booklet in terms of gain in knowledge scores

The findings is consistent with a study which shows, the effectiveness of baby books for providing pediatric anticipatory guidance to new mothers with a positive result for the study.[6]

Conclusion:

During the pre test, the primigravid women lacked knowledge in most of the areas regarding milestone development of infants. The study revealed that, if additional information in the form of booklet is given regarding various aspects of milestone development, there would be an enhanced awareness among them and it was helpful in increasing their skill to identify their babies normal development and any deviations. The present study would help nurses and other healthcare personnel to understand the level of knowledge of primigravid women regarding milestone development of infants and the use of educational tools in the enhancement of knowledge of mothers.

Table 1 : Frequency and percentage distribution and grading of knowledge of subjects according to their pre-test and post test knowledge scores
N=50

Range of knowledge scores	Percentage %	Grading	Pretest		Posttest	
			Frequency (f)	Percentage%	Frequency (f)	Percentage %
0-5	0-20	Very poor	4	8	-	-
6-9	21-40	Poor	23	46	-	-
10-14	41-60	Average	21	42	7	14
15-19	61-80	Good	2	4	30	60
20-24	81-100	Excellent	-	-	13	26

Maximum score= 24

Table 2 :Mean, Mean difference, Standard deviation and Paired 't' test value between pre-test and post test knowledge scores
N=50

Group	Mean knowledge scores		Mean difference	't' value	p value
	Pre-test	Post-test			
Primi gravid women	9.120±2.782	17.820±2.677	8.7	21.904	<0.01*

t_{49}= 2.00, p<0.05 is considered as statistically significant *Significant

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