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A Study to Assess Effectiveness of Informational Booklet Regarding the Knowledge on Developmental Milestones of an Infant among Primi Para Mothers in MGMCRI at Puducherry

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Abstract: ***Introduction: The child is an important person in every family. The health of a growing child is always a great concern to the parents. Developmental surveillance is the process of monitoring child development over time to promote healthy development and to identify possible problems. The developmental landmarks or milestone take place in four fields [motor, cognitive, social and language development. Research Methodology: A quasi experimental study was adopted, 30 primi para mothers were included as per inclusion criteria by using convenient sampling technique. pre-test was conducted with semi structured questionnaire followed that distributed booklet and explained about the milestones of an infant . After seven days post-test was conducted with the same semi structured questionnaire. Data was analyzed by descriptive and inferential statistics. Major Findings: In pre-test out of 30 samples 36.7 % less adequate knowledge, 63.3 % of mothers have moderately adequate value. Pre-test mean score is 8.7 with SD 1.985. In post-test 33.3 % mothers have moderately adequate knowledge, 66.7 % of mothers have highly adequate knowledge, the post-test mean score is 17.0 with SD 3.068 . The improvement of knowledge was statistically tested by chi-square test and found to be highly statistically significant at p<0.001. It Indicates that the informational booklet was effective in improving developmental milestones of an infant Hence the stated hypothesis (H1) was accepted. Conclusion: The conclusion of the present study shows that the majority of primi para mothers gained adequate knowledge on developmental milestones of an infant. It reveals that the informational booklet was effective to improve the knowledge level of primi para mother's regarding milestone development of an infant.***

Keywords: Information booklet, development of mile stone, primi para, mothers

1. Introduction

The child is the most precious possession of mankind, the child represents the face of man which is always happy and new. Every child has the right to possess and enjoy good health.[1]

The child has always occupied an important position in the society since the origin of mankind. Children have always been the Centre of hope, dedication and future of the nation. For achieving the enjoyment of the highest attainable standard of life and society it is necessary that all aspects of child's health and welfare be considered rather than the care of the sick child alone. Development monitoring is an operational strategy for the promotion of health, which enables mother to visualize growth and development pattern of their children. The mothers play an important role in the life of children. Infants are usually seen at health care facilities for health maintenance at least six times during the first year. Anticipatory guidance offered at these visits can help parents prepare for the rapid changes that mark the first year of life .[2]

An infant is someone who becomes a child and then an adolescent , passing through his parent's lives and disappearing into an adult , a full-fledge person , with a life and a future all his own . The birth of an infant is one of the most awe-inspiring and emotional events that can occur in one's life time . The child develops very fast in the infant stage . Growth is essential feature of life of a child that distinguish him or her from an adult.[3]

It is an essential to understand normal developmental patterns of the children to recognize possible developmental disabilities. Assessment and monitoring of developmental milestones are essential for early diagnosis of developmental disabilities and it is helpful in taking early intervention programs.[3] The optimal development of children is considered vital to society. It is essential to assess the value of mothers or caregivers because they are what truly make society function. They prepare the next generation for school, work and decision-making . So it is important to educate the parents or caretakers on the physical, cognitive, language, social development of children . A child's entire future largely depends on how he or she are nurtured, increased knowledge of age – specific milestones allows parents and others to keep track of appropriate development.[4]

2. Need for the Study

More than 200 million children under five years of age in developing countries do not reach their developmental potential. Besides biological determinants, family environments of young children are major predictors of cognitive and socio-emotional abilities. Early identification and timely intervention in populations with established risk can go a long way towards improving their functional capacity. The developmental landmarks or milestone take place in four fields: motor development, psycho- social development and language development. The behavioral development of the child is a complex affair. For a proper behavioral development, the child must be assured emotional and moral stability- that is a home where he/ she

will find bond of affection, regular discipline and parents who accept him/her and are a model of balanced conduct.[4]

Knowledge of developmental milestones is essential for assessing normal development and to identify any delay in development. Knowledge about child-health, should transformed into action to reach the grass root level. postnatal mothers if they know regarding the developmental milestones of infant they can be able to notify the progress and delay in the growth and development of their child.[4]An infancy is the most important period in human life so the postnatal mothers should know regarding the normal developmental milestones of an infant[4]. A majority of mothers, regardless of age, were incorrect in their assessment of when key infant abilities occur. When the results were analyzed according to age, the youngest groups of mothers were less knowledgeable. Parity had association with maternal knowledge.[5] Thus the investigator felt the need to educate primipara mothers on developmental milestones so that mothers can blend these attainments in care and in identification of developmental delay in their children.[5]

Problem Statement

Effectiveness of Informational Booklet Regarding the Knowledge on Developmental Milestones of an Infant among Primi Para Mothers in MGMCRI at Puducherry.

Objectives

- To assess the knowledge of the primi para mothers of newborn regarding developmental milestones of an infant.
- To find out the effectiveness of informational booklet on developmental milestones of an infant among primi para mothers of newborn.
- To find out an association between knowledge regarding developmental milestones of an infant with the selected demographic variables.

3. Review of Literature

Section-1Studies Related To Mothers Knowledge Regarding Milestone Development-Lujain Anwar Alkhazrajy and Enas Rifaat Salah Aldeen (2017) conducted a study on assessment of mothers knowledge regarding the developmental milestone among children under two year in Iraq. A cross sectional study with a sample size of 400 mothers attending six primary health care centers in Baghadad for maternal and child health care. Regarding the age of the mothers, the majority were between 20-29 years old (40.5%), 70% of them were employed and the illiterate mothers constituted (30.25%) of the study sample. Most of the mothers (71.5%) stated that their experience was their main source of information. There was a significant association was observed between the mother age and all four domains of knowledge, other variables (educational level, source of information showed different level of association and most of the mothers had a limited knowledge regarding the cognitive domain.[6]

Section- 2 Studies Related To Milestone Development-Suraj J mash, karobi das, Baljitkaur(2013) Conducted study on a descriptive study to assess the developmental milestone and the health of toddlers at village DaduMajara. A total of 160 children between the age group of 12 to 24 months comprised the sample of the study .The achieved developmental milestones were assessed with help of the Denver developmental screening test. Majority of the children were able to achieve the developmental milestone. The physical assessment revealed that children were suffering from various degree of malnutrition ranging from grade I to grade IV. About 15.6%of subjects were found with abnormal physical characteristics.[15]

Section- 3 Studies Related To Cognitive Development-Hugo Peyre, Marie-Laure Charkaluk , Anne Forhan ,Barbara Heude, Franck Ramus, on behalf of the EDEN Mother Child Cohort Study Group(2016) Conducted study on developmental milestones at 4, 8, 12 and 24 months predict IQ at 5-6 years old? Results of the EDEN mother child cohort. To determine how well developmental milestones at 4,8, 12 and 24 months may predict IQ at 5-6 years old, To identify cognitive domains during the first two years that best predict later IQ. The main developmental milestones were collected through self – administered questionnaires rated by parents at 4,8,12 and 24 months and through parental questionnaires administered by a trained interviewer and questionnaires completed following a medical examination at 12 months. Developmental milestones predict a substantial part of the later IQ variance from 24 months (R2 20%) .Early language skills more strongly predict later IQ than the cognitive domains.

Section- 4 Studies Related to Psychosocial Development-Betty ruthcarruth, Phd, rd; paula j. Ziegler, phd, rd; annegordon, phd; kristyhendricks, scd, rd (2014) Conducted study on Developmental Milestones and Self-Feeding Behaviors in Infants and Toddlers. Design Cross-sectional survey of households with infants toddlers. Subjects/Setting Telephone survey using a national random sample of infants and toddlers .MethodsPrimary caregivers reported their children's food intake (one 24-hour recall), the ages when caregivers reported self-feeding skills were shown, and the number of teeth. A majority of the children who were reported to show developmental readiness to self-feed at an earlier age (7 to 14 months) had higher intakes of energy and most nutrients than those who didnot. By 15 to 18 months, most of the children were reported to show comparable self-feeding skills regardless of whether they self-fed earlier or later.

4. Research Methodology

Research Approach: The research approach used in this study was quantitative experimental research approach to find the knowledge of mothers in developmental milestone of an infant.

Research Design: The design adopted for the study was Pre-experimental research design one group pre-test post-test research design.

Research Setting: The study was conducted in postnatal ward in MGMCRI at Puducherry.

Study Population: The primipara mothers of newborn.

Sampling Technique: The sampling technique used in this study was convenient sampling research technique.

Sample Size: 30 Primi para mother

Criteria for Sample Selection

A) Inclusion criteria: primi para mothers of newborn

B) Exclusion criteria: mothers with post natal complications, newborn with critical conditions.

Development and Description of the Study

Part 1- demographic variables:

1) Age of the mother, educational status of the mother, occupation of the mother type of family, religion, residential l area, source of information.
2) Knowledge of mothers regarding the developmental milestone of an infant.

Part 2-semi structured knowledge questionnaire: The semi structured knowledge questionnaire contains 25 questions which are developed from the informational booklet regarding physical, cognitive, language, social development.

Content Validity

The tool content was validated by experts in nursing field.

Data Collection Procedure

The purpose of the study was explained to the mothers and informed consent was obtained from them .The data was collected by using convenient sampling technique as per inclusion criteria. Pre-test was conducted with semi structured questionnaire with the duration of 30 minutes to fill the questionnaire and informational booklet was given and explained to the mothers. After 7 days post-test was conducted with same semi structured questionnaire with the duration of 30 minutes. Refreshment was given to mothers, informational booklet was issued to all the postnatal mothers presented in the ward. The result was analyzed.

Method of Data Analysis: The collected data was analyzed through descriptive and inferential statistics.

Scoring Key:

- Highly adequate 21-30
- Moderately adequate 11-20
- Less adequate 0-1

5. Data Analysis and Interpretation

This chapter deals with the analysis and interpretation of data . In this chapter the study findings are grouped , analyzed and presented under the following headings.

SECTION-A: Distribution of demographic variables of primi para mother

SECTION-B: Assess the level of knowledge regarding milestone among primi para mothers during pre –test and post-post

SECTION-D: Associate the level of knowledge on milestone development among primi para mothers with selected demographic variables

SECTION-A: Distribution of demographic variables of primi para mother.

Table 4.1: Frequency and percentage distribution of the demographic variables

S. No	Demographic Variables	Frequency (n)	Percentage (%)
1	AGE IN YEAR		
	20-25 year	19	63.3%
	26-30 years	9	30.0%
	31-35 years	2	6.7%
	Above 36	-	-
2	EDUCATIONAL STATUS		
	Under graduate / post graduate	14	46.7%
	Higher secondary	10	33.3%
	High school	6	20.0%
	Primary	-	-
3	OCCUPATIONAL STATUS		
	House wife	25	83.3%
	Private employee	4	13.3%
	Business women	1	3.3%
	Government employee	-	-
4	RESIDENTIAL AREA		
	Rural	20	66.7%
	Urban	10	33.3%
5	TYPES OF FAMILY		
	Nuclear family	14	46.7%
	Joint family	16	53.3%
6	RELIGION		
	Hindu	26	86.7%
	Christian	1	3.3%
	Muslim	3	10.0%
	Others	-	-
7	SOURCE OF INFORMATION		
	Parents /relatives	17	56.7%
	School / friends	-	-
	Media	3	10.0%
	Health personnel's	1	3.3%
	Not aware	9	30.0%

Table 4.1: Shows the frequency and percentage distribution of the demographic variables of selected samples. With regard to age 19 (63.3 %) belongs to the age group of 20 – 25 years. In educational status most of the samples 14 (46.7%) were under graduate mother. In occupation most samples 25 (83.3%) are house wife. In residential area most of the samples 20 (66.7%) are urban. In regard to type of family, majority of samples 16 (53.3%) belongs to joint family. With respect to religion 26 (86.7%) are Hindu. Regard to source of information most of the samples 17 (56.7%) gained information from the parents and relatives.

Section B: Assess the level of knowledge regarding developmental milestone among primi para mothers during pre-test and post-test.

Table 4.2: Distribution of level of knowledge regarding developmental milestone among primipara mother during pre-test and post-test

Level of knowledge	Pre test		Post test	
value	N	%	N	%
Less adequate	11	36.7%	-	-
Moderately adequate	19	63.3%	10	33.3%
Highly adequate	-	-	20	66.7%

Table 4.2 Depicts the pre-test and post-test of knowledge on milestone development of an infant among primi para mother in pre-test out 0f 30 samples , 11 (36.7 %) had less adequate knowledge , 19 (63.3 %) had moderately adequate knowledge. In post-test majority of the sample had gained adequate knowledge, it shows that information booklet was effective on milestone development among primi para mothers.

Section C: Comparison of Level of Knowledge Regarding Developmental Milestone among Primi Para Mother.

Table 4.3: Comparison of pre test and post test mean level of knowledge regarding developmental milestone

S. No	Level of Knowledge	Mean	Std. Deviation	Std. Error Mean	Difference	T-Value	P-Value
1.	Pre test	8.7	1.985	0.362		13.089	<0.001
2.	Post test	17.03	3.068	0.56			

Table 4.3 The effectiveness of informational booklet regarding milestone development of an infants among primipara mothers . Mean score knowledge level of milestone development was 8.7 with the standard deviation of 1.985 whereas after implementation of informational booklet , the post-test knowledge mean score was increased about 17.03 with the standard deviation of 3.068 . The improvement of knowledge statistically significant at <0.001 level .Hence the informational booklet was accepted.

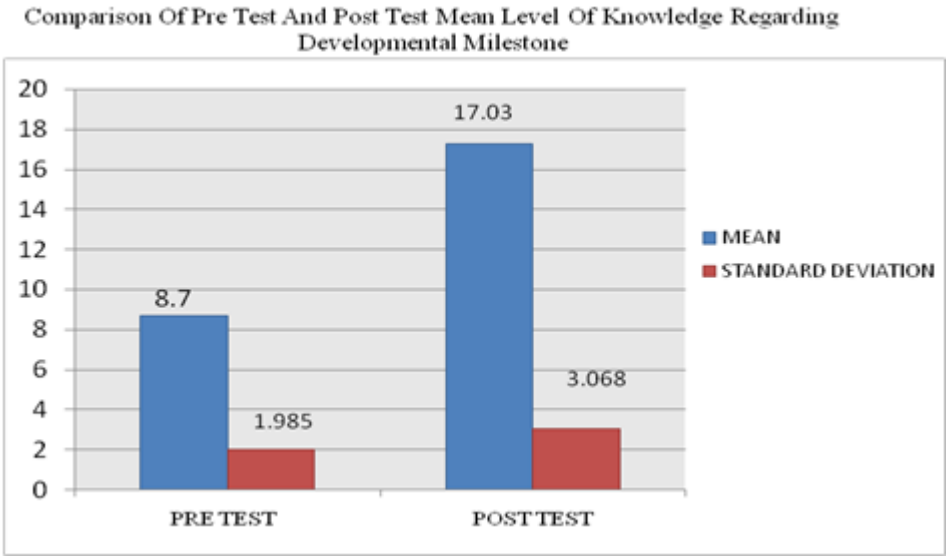

Figure 4.9: Percentage distribution pre-test and post-test mean and SD

Section – D: associate the level of knowledge on milestone development among primi para mothers with selected demographic variables.

Table 4.4: Association between pre-test level of knowledge with selected demographic variables

S. No	Demographic Variables	N	Knowledge Score			Kruskal Willis / Mann Whitney Test	P-Value
			Mean	Median	S.D.S		
1	Age of the mother in year					4.0806	0.13
	20-25 Years	19	9.16	9	2		
	26-30 years	9	7.56	7	2.13		
	31-35 years	2	9.5	9.5	0.17		
2.	Education status of the mother					1.4467	0.4851
	Under graduate / Post graduate	14	8.93	9	2.13		
	Higher secondary	10	8.1	8.5	2.18		
	High school	6					
3.	Occupation of the mother					1.3085	0.5198
	House wife	25	8.8	9	1.17		
	Private employee	4	7.75	8.5	2.63		
	Business women	1	10	10			
4.	Residential area					0.5478	0.5492
	Rural	20	8.5	9	2.09		
	Urban	10	9.1	9	1.79		
5.	Type of family					1.6168	0.2035
	Nuclear family	14	8.21	9	2.04		
	Joint family	16	9.12	9	1.89		
6.	Religion					1.4041	0.4956
	Hindu	26	8.73	9	2.05		

	Christian	1	10	10			
	Muslim	3	8	9	1.73		
7.	Source of information						
	Parents/relatives	17	8.59	9	1.77	3.8772	0.275
	Media	3	9.33	10	1.15		
	Health personnels	1	4	4			
	Not aware	9	9.22	9	2.11		

Table: 4.4 Findings shows the association between the knowledge with selected demographic variables. Hence it is evident that the demographic variables, like type of family, joint family mother have more knowledge significantly comparing to nuclear family, the P value shows P<0.275***. Hence the hypothesis (H2) was accepted.

6. Discussion

The main aim of the present study was to the effectiveness of informational booklet regarding the developmental milestone of an infant among primi para mothers was conducted at postnatal ward. Quasi experimental research design (one group pre-test and post-test) was adopted with sample size of 30. The samples were selected by convenient sampling technique . The response was analyzed through both descriptive (mean, frequency percentage) and inferential statistics (chi-square test) Discussion of the findings was presents based on the objective of the study.

The first objective of the present study was to assess the knowledge of the primipara mothers regarding developmental milestone of an infant. In pre-test out of 30 samples 36.7 % had less adequate knowledge, 63.3 % of mothers have moderately adequate knowledge. In post-test 15% of mothers have, 33.3 % mothers have moderately adequate knowledge, 66.7 % of mothers have highly adequate knowledge.

The second objective of the present study was to evaluate the effectiveness of informational booklet regarding developmental milestone of an infant among primi paramothers . The effectiveness of informational booklet on developmental milestone of an infant among primi para mothers. pre-test mean score is 8.7 with standard deviation 1.985 whereas after implementation of informational booklet .In post-test mean score is 17.0 with standard deviation 3.068 . The improvement of knowledge was statistically tested by chi-square test and found to be highly statistically significant at p <0.001. Indicates that the informational booklet was effective in improving developmental milestones of an infant **Hence the stated hypothesis (H2) was accepted.**

The third objective of the present study was to find out the association to level of knowledge on developmental milestone of an infant among primipara mothers with selected demographic variables. Finding shows the association between the knowledge with selected demographic variables. Hence, it is evident that the demographic variable like type of family, joint family mother have more knowledge significantly comparing to nuclear family, the P value shows P<0.275***. **Hence the stated hypothesis (H2) was accepted**.

7. Summary

The present study was to assess the knowledge on developmental milestone of an infant among primi para mothers. The sample of 30 primi para mothers were selected and the pre-test was conducted with set of semi structured questionnaire, and informational booklet was issued and explained and the post-test was conducted after seven days with same set of semi structured questionnaire. All 30 primi para mothers have gained adequate knowledge on developmental milestone of an infant. Quasi experimental research design was adopted for the study,30 samples were selected through convenient sampling technique . A pre-test was conducted with set semi structured questionnaire and distributed booklet and explained about the milestones to an infant. After seven days post-test was conducted with same set of semi structured questionnaire. Data was analyzed by descriptive and inferential statistics (chi square test value).

8. Major Findings of the Study

- With regard to age 63.3 % belongs to 20-25 years, 30.0% belongs to 26-30 years, 6.7 % belongs to 31-35 years. In educational status 46.7% belongs to under graduate /post graduate, 33.3% belongs to higher secondary, 20% belongs to high school. In occupational status 83.3% were house wife, 13.3% were private employee, 3.3% was own business. In residential area 66.7% were from rural, 33.3% were from urban areas. In religion 86.7% were Hindu, 3.3 % was Christian and 10.0% were Muslim. In source of information 56.7% were from parents/relatives, 10.0% were from media, 3.3 % was from health professionals, 30.0% were not aware of milestone development of an infant.
- In pre-test out of 30 samples 36.7 % had less adequate knowledge, 63.3 % of mothers have moderately adequate knowledge, 20 % of mothers have adequate knowledge. Pre-test mean score is 8.7 with standard deviation 1.985 whereas after implementation of informational booklet .In post-test 15% of mothers have less adequate knowledge, 33.3 % mothers have moderately adequate knowledge, 66.7 % of mothers have adequate knowledge, the post-test mean score is 17.0 with SD 3.068.
- The improvement indicates that the informational booklet was effective in improving knowledge on developmental milestones of an infant.
- Pre-test mean score is 8.7 with standard deviation 1.985 whereas after implementation of informational booklet. In post-test mean score is 17.0 with SD 3.068. The improvement of knowledge was statistically tested by chi-square test and found to be highly statistically significant at p<0.001. Indicates that the informational booklet was effective in improving developmental milestones of an infant.

- The association between the knowledge with selected demographic variables. Hence, it is evident that the demographic variable like age, educational status, occupation, area of residence, types of family, source of information had association with knowledge because the p values is (0.13) . **Hence the stated hypothesis (H2) was accepted** .Significant p value <0.001 level.

References

[1] R.K Sharma. Effectiveness Of Knowledge Of Developmental Milestone. International Journal Nursing Education And Research, Jan–Mar 2017: L7 (3); Page No.51.
[2] Adele Pillitteri. Child Health Nursing. Fourth Edition. Philadelphia United States: Lippincot Williams & Wilkins; 1999.Page No.174-190.
[3] Marlow R Doorthy. Textbook Of Pediatrics Nursing. Fourth Edition. Philadelphia: W.B.Saunders Publication; 1998. Page No.335.
[4] Hockenberry Jm, Wilson D. Wong's Essential Of Pediatric Nursing. 8th Edition. New Delhi : Elsevier Publication; 2012.Page No.432-445.
[5] Neil Salkind. Child Development .6th Edition. Philadelphia: Rinchart And Winston Inc;2002. Page No.204.
[6] Lujain Anwar Alkhazrajy. Assessment Of Mothers Knowledge Regarding Developmental Milestone. American Journal Of Applied Science, 2017:14(9): Page No.867-877.
[7] Khushbu Meshram. Knowledge Regarding Developmental Milestone among The Mothers Of Infant. International Journal Of Nursing Education And Research, 2016:5(2): Page No.143-146.
[8] Deepikadavid. Assess The Developmental Milestone Of Infant. International Journal Of Current Research, 2016:6 (7): Page No.525-528.
[9] A W Olsen. Developmental Milestone Of Infant. International Journal Of Obstetrics And Gynecology, 2015: 23(2); Page No.1331-1339.
[10] Chiniju Varghese. Effectiveness Of Knowledge Of Developmental Milestone.Indian Journal Of Research, 2015: 4(6): Page No.58-59. Available From: Https://Www.Worldwidejournals.Com
[11] Phoebe Dauz, Effectiveness Of Knowledge Of Developmental Milestone. Nitte University Journal Of Health Science, 2014: 5(10): Page No.218-220. Available From: Https://Nitte.Edu.In.Journal
[12] Eda J.Leshan. Effectiveness Of Knowledge Of Developmental Milestone. Fortis Institute Of Nursing, 2012: Page No.46-51. Available From Www.Rguhs.Ac.In>Upload
[13] Mariamma Stephen. Effectiveness Of Milestone Developmental. Rajiv Gandhi University Of Heath Science, 2010: Page No.66-68. Available From Www.Rguhs.Ac.In>Upload
[14] Surekha. S. Shetty. Effectiveness Of Developmental Milestone Of Infant. Rajiv Gandhi University Of Health Science, 2008: Page No.55-59. Available From Www.Rguhs.Ac.In>Upload
[15] Suraj J Mash. Assess The Milestone Development And Health Of Toddler. Nursing And Midwifery Research Journal,2013: 17(4): Page No.78-81.
[16] Manikalaivani. Achievement Of Motor Milestone Among Children. Journal Of Pediatric Neurology, 2010: 5(2): Page No:256-259.