



ASSESS THE EFFECTIVENESS OF INFANT ASSESSMENT GUIDE ON KNOWLEDGE DURING ANTENATAL PERIOD AND PRACTICE DURING POSTNATAL PERIOD REGARDING GROWTH AND DEVELOPMENT OF INFANT

*Rebekkal, J.M., Dr. Mangala Gowri, P. and Mary Minolin

Saveetha College of Nursing, Saveetha University, Chennai, TamilNadu, India

ARTICLE INFO

Article History:

Received 14th May, 2017
Received in revised form
25th June, 2017
Accepted 22nd July, 2017
Published online 30th August, 2017

Keywords:

Growth and Development,
Infant Assessment Guide,
Antenatal mothers, Postnatal mothers.

*Corresponding author

Copyright ©2017, Rebekkal et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Citation: Rebekkal, J.M., Dr. Mangala Gowri, P. and Mary Minolin, 2017. "Assess the Effectiveness of Infant Assessment Guide on Knowledge During Antenatal Period and Practice during Postnatal Period regarding Growth and Development of Infant", *International Journal of Development Research*, 7, (08), 14649-14652.

ABSTRACT

The birth of an infant is one of the most awe-inspiring and emotional events that can occur in one's life time of a mother, after nine months of anticipation and preparation. The neonates arrive with a flurry of excitement. Healthy and sturdy babies are likely to evolve as physically and mentally strong adults with enhanced quality of human resource development. The health of a growing child is always a matter of great concern to the parents. The physical health of a child is important because it is associated with the mental and social development. The main aim of the study to assess the effectiveness of infant assessment guide on knowledge during antenatal period and practice during postnatal period regarding growth and development of Infant. The study was conducted among 60 antenatal mothers with 39 weeks of gestation and postnatal period were selected. The study finding revealed that Infant Assessment Guide Teaching was effective to improve the knowledge and practice regarding growth and development of infant among antenatal mothers with 39 weeks of gestation and postnatal period.

INTRODUCTION

Antenatal period is existing before birth and starts from conception to birth. Antenatal period is a unique, exciting, and often joyous time in a woman's life as it highlights the woman's amazing creative and nurturing powers while providing a bridge to the future. The growing fetus depends entirely on its mother's healthy body for all needs. Growth refers to measure of physical maturation evidenced by multiplication of cells and increase of intracellular substances results in increase in the size of body and its various organs measured in terms of centimeter and kilograms. Development is a measure of functional or physiological maturation and myelination of the nervous system. It signifies accomplishment of mental, emotional and social abilities. It is rather difficult to assess development. Developmental milestone are a set of functional skills or age-specific tasks that most children can do at a certain age range.

Child development refers to how a child becomes able to do more complex things as they get older. Growth refers to the child's development: Although each milestone has an age level, the actual age when a normally developing child reaches that milestone can vary quite a bit. "Infant" is derived from the Latin word, "infans," meaning "unable to speak. Thus, many define infancy as the period from birth to approximately 1 year of age, when language begins to flourish. It is an exciting period of "firsts"-first smile, first successful grasp, first evidence of separation anxiety, first word, first step, and first sentence. The infant is a dynamic, ever-changing being who undergoes an orderly and predictable sequence of neurodevelopmental and physical growth. In earlier days joint family is our cultural practice. During that period elder people in the family taken care of the mother and new arrival. They were well experienced and had knowledge of the growth and development of infant. They used to teach and support the mother regarding child rearing practice. But now a days due to the culture and job opportunities all joint families are split into

the nuclear family. Even though antenatal mothers are well educated, they have less knowledge about growth and development of infants. Mother is a child's first teacher and they play an important role in their child's learning and development. Children who receive responsive and consistent care giving early in life develop secure attachments to their mothers, which helps with their growth and development. Mothers are considered as the primary care givers and they can identify various changes occurring in their children including the developmental delays.

It is essential to understand normal development and acceptable variations in normal developmental patterns of the infants 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. Mothers who are usually taking care of the child, must have adequate knowledge regarding growth and development of infant. So it is important to educate antenatal mothers regarding growth and development of infant and its variations because they are the guidelines which help to get a sense of how children are progressing.

MATERIALS AND METHODS

Research Design: Pre-experimental with one group pre-test and post-test design.

Population: antenatal mothers with 39 weeks of gestation and during postnatal period.

Sample: Antenatal mothers with 39 weeks of gestation and during postnatal period, who fulfils inclusion criteria.

Sample size: 60 antenatal mothers with 39 weeks of gestation.

Sampling technique: Non-Probability Convenient sampling technique.

Duration of study: 4 weeks.

Necessary individuals consent and institutional ethical committee approval were obtained for carrying out this study.

Inclusion Criteria

- Primi and multigravida antenatal mothers in 39 weeks of gestation.
- Primi and multigravida antenatal mothers who will deliver at Thillai Nursing Home.
- Mothers who are willing to participate in the study.

Exclusion Criteria

- Mothers have psychological problem, Eclampsia.

Research tools: The three tools used for collecting the data were

PART – I

It deals with Demographic variable consists of Age in year, Number of children, Religion, Educational status, Occupation, Family income/month in Rupees, Previous exposure to information regarding growth and development.

PART – II

Structured Interview Questionnaire to assess the knowledge of growth and development of infant among antenatal mothers with 39 weeks of gestation in Thillai Nursing Home, Chennai.

PART-III

An observation check list to assess the practice of infant assessment guide on growth and development of infant among postnatal mothers, within 3 days.

RESULTS

Majority 31(51.67%) were in the age group of 21 – 25 years. The antenatal mothers with 39 weeks of gestation who had one child was 42(70%). Where 51 (85%) were Hindus in religion. The antenatal mothers who was educated upto middle school were (33.33%) and more than half of the proportion were housewives were 56 (93.33%).Majority of (93.33%) antenatal mothers had no previous exposure to information regarding growth and development of infant as shown in Table 1.

Table 1. Frequency and percentage distribution of demographic variables of antenatal mothers with 39 weeks of gestation in the study group

S. No.	Demographic variables	Study group	
		NO	%
n = 60			
1.	Age in year		
	a) 15-20	8	13.33
	b) 21-25	31	51.67
	c) 26-30	18	30
	d) 31-35	3	5
2.	Number of children		
	a) One	42	70
	b) Two	17	28.33
	c) Three	1	1.67
	d) Four and more	0	0
3.	Religion		
	a) Hindu	51	85
	b) Christian	7	11.67
	c) Muslim	2	3.33
	d) Others	0	0
4.	Educational status		
	a) No formal education	0	0
	b) Primary school	0	0
	c) Middle school	20	33.33
	d) High school	17	28.33
	e) Higher secondary	14	23.33
	f) Graduate	9	15
5.	Occupation		
	a) Housewife	56	93.33
	b) Unskilled labour	3	5
	c) Skilled labour	1	1.67
	d) Employed	0	0
6.	Family income / month in Rupees		
	a) below 5000	3	5
	b) 5001-10000	26	43.33
	c) 10001-15000	23	38.33
	d) 15001 and above	8	13.33
7.	Previous exposure to information regarding growth and development		
	a) Yes	4	6.67
	b) No	56	93.33

In the pre test, out of 60 samples 27 (45 %) had moderate knowledge and 33 (55 %) had inadequate knowledge regarding growth and development of infant. In the post test, majority of the samples 53 (83.33%) had adequate knowledge regarding growth and development of infant and 7(11.67 %) had moderate knowledge. There was significant increase in the

level of knowledge and practice regarding growth and development of infant among antenatal mothers after receiving infant assessment guide teaching at level $p < 0.001$ as shown in Table 2. The Table 3 revealed that there was a positive correlation. This clearly indicates that when the level of knowledge increases the practice of the mothers regarding growth and development of infant is also increase. The Table 4 showed that there was an association between occupation of mothers with post-test level at the level of $P < 0.005$

Table 2. Effectiveness of infant assessment guide regarding knowledge on growth and development of infant among the mothers

n = 60			
Knowledge	Mean	S.D	Paired 't' Value and P value
Pretest	10.08	2.29	t = 38.274
Post Test	17.96	1.80	p = 0.001, S***

Table 3. Correlation between post-test knowledge and practice score regarding growth and development of infant among mothers in postnatal period

n= 60			
Variable	Mean	S.D	'r' Value
Knowledge	17.96	1.80	r = 0.613
Practice	7.75	0.43	p = 0.000, S**

Table 4. Association between post test level of knowledge and demographic variables regarding growth and development of infant among antenatal mothers with 39 weeks of gestation

n = 60					
Demographic Variables	Moderately Adequate (51 – 75%)		Adequate (>75%)		Chi-Square Value and P value
	No.	%	No.	%	
5. Occupation					$\chi^2=9.345$
Housewife	5	8.3	51	85.0	d.f=2
Unskilled labour	1	1.7	2	3.3	p = 0.009
Skilled labour	1	1.7	0	0	S**
Employed	-	-	-	-	

DISCUSSION

The main focus of this study was to assess the effectiveness of infant assessment guide on knowledge and practice regarding growth and development of infant among antenatal mothers. Most of the antenatal mothers have inadequate knowledge regarding growth and developmental of infants according to the months. Mothers who are usually taking care of the child, must have adequate knowledge regarding monitoring the child growth and development. So this knowledge is very important because it will help to identify the developmental disabilities and seek early interventions and management. Maternal education plays a strong role in alleviating infant and child morbidity and mortality, and rightfully plays a prominent role in growth and development of infant. So infant assessment guide is very important for antenatal mothers regarding growth and development of infant because it will help to identify the developmental disabilities and seek early interventions and management. The findings of the present study showed that infant assessment guide was effective to increase the knowledge regarding growth and development of infant among antenatal mothers with 39 weeks of gestation which was statistically significant at $p < 0.001$. The findings of the present study showed that there was a positive correlation. This study clearly indicates that when the level of knowledge increases the practice of the mothers regarding growth and development infant is also increase. Hence there is a positive correlation

between post test knowledge and practice of the mothers regarding growth and development of infant. The findings of the study showed that there was a significant association between occupation of mothers with post test level of knowledge regarding growth and development of infant among antenatal mothers. In earlier days joint family is our cultural practice. During that period elder people in the family taken care of the mother and new arrival. They were well experienced and had knowledge of the growth and development of infant. They used to teach and support the mother regarding child rearing practice. But nowadays due to the culture and job opportunities all joint families are split into the nuclear family. Even though antenatal mothers are well educated, they have less knowledge about growth and development of infants. The statistical value supported the research hypothesis that the post test knowledge was significantly higher than the pre test knowledge regarding growth and development of infant among antenatal mothers. Hence the hypothesis of the study was accepted.

Acknowledgement

Author express sincere thanks to all the experts for their valuable suggestions.

- Dr.P.Mangalagowri, M.Sc (N), Ph.D, Principal, Saveetha College of Nursing, Saveetha University, Thandalam.
- Mrs. T. Mary Minolin, M.Sc (N), Associate Professor and HOD of Child Health Nursing, Saveetha College of Nursing, Saveetha University. Thandalam.

REFERENCES

- Achar's, 2009. Textbook of Pediatrics, Universities Press Pvt Ltd, Hyderabad.
- Archana Maurya, Sr Josy, and Sawangi Meghe Wardha, 2014. Effectiveness of Planned Teaching on Knowledge of Selected Risk Factors Related to Low Birth Weight Babies among Antenatal Mothers, *International Journal of Science and Research*, Volume 3, PP-1013-1018.
- Bagner, D.M., Rodriguez, G.M., et al., 2015. Assessment of Behavioral and Emotional Problems in Infancy: A Systematic Review, *Journal of Clinic Child Family Psychology*, Volume: 2, PP:113-128
- Basavanthappa B.T. 1999. Nursing research, Jaypee Brothers, New Delhi.
- Basavanthappa B.T. 2006. Nursing Theories, Jaypee Publisher, Bangalore.
- Behzad Shams, Parasto Golshiri, and Arash Najimi, 2013. The evaluation of Mothers' participation project in children's growth and development process: Using the CIPP evaluation model, *Journal of Education Health Promotion*, Volume 2, PP:58-61.
- Burns and Grove, 1995. Understanding Nursing Research, W.B.saunders.co, Philadelphia.
- Chinju Varghese, 2015. Paper Effectiveness of Information Booklet on Knowledge Regarding Milestone Development of Infants among the Primigravid mothers, *Indian Journal of Research*, Volume: 4, PP-58-60.
- Debra H. Zand, Katherine J. Pierce, Margaret W. Bultas, 2015. Accuracy of Knowledge of Child Development in Mothers of Children Receiving Early Intervention Services, *Journal of early intervention*, Volume:37, PP:226-240.

- Denise F, Polit and Cheryl Tatano Beck, 2016. Nursing Research: Generating and Assessing Evidence for Nursing Practice, Wolters Kluwer India Pvt Ltd, New Delhi.
- Dorothy R. Marlow and Barbara A. Reddens, 2012. Textbook of Pediatric Nursing, Harcourt India Pvt Ltd, New Delhi.
- Elizabeth B.Hurlock, 2001. Child Growth and Development, Mc Graw: Hill companies.Inc, New York.
- Freed, Susan Scott, et al., 2004. Identification and Treatment of Congenital Muscular Torticollis in Infants, *Journal of Prosthetics & Orthotics*, Volume: 16, PP:S18-S23.
- Ghai, O.P. 2009. Essentials Pediatrics, CBS Publishers and Distributers Pvt Ltd, New Delhi.
- Gupat SG and Kapoor V.K. 1990. Fundamentals of Mathematical statistics, Japee Publishers, New Delhi.
- Gurumani, N. 2005. An Introduction of Biostatistics, MJP Publishers, Chennai.
- Hetal Vora, Priti Shah, S.H. Mansuri Smt, 2013. A Study on Developmental Delay Among Children Less Than 2 Year Attending Well Baby Clinic - Prevalence And Antecedents Factors, *International Journal of Medical Science and Public Health*, Volume:2 PP:1084-1987.
- Hungler, B. P. and Polit Denise, F. 1999. Nursing Research, Lippincott Company, Philadelphia.
- Illingworth Ronald S. 1999. Development of the infant and young children, normal and abnormal, E and S. Livingstone Ltd, Edinburgh and London.
- Joyce J Fitzpatrick et al. 2005. Conceptual Models of Nursing, Analysis and Application, A prentice Hall Publishing and Communication Company, Maryland.
- Meharban Singh, 2006. Pediatric clinical methods, New Delhi: Sagar Publications.
- Pee Vee, 2011. A text book of child health nursing with procedures, S.Vikas and company, India.
- Peter B. Marschik, et al., 2016. Early development in Rett syndrome – the benefits and difficulties of a birth cohort approach, *Journal of Developmental Neurorehabilitation*, Volume-13, PP:1-5.
- Polit, D.F. and Hungler, B.P. 1999. Nursing research principles and Methods, Jaypee Publishers, Philadelphia.
- Potter A. Patrica and Perry, 1995. Basic Nursing Theory and Practice, St. Louis Mosby Publisher, Edinburg.
- Prabhakar G.W. 2006. Biostatistics, Jaypee Brothers, New Delhi.
- Rao Sundar Richard J. 1996. An introduction to Biostatistics, Hall of India Pvt Ltd, New Delhi.
- Rimple Sharm, 2013. Essentials of Pediatric Nursing, Jaypee Brothers Medical Publiishers Pvt Ltd, New Delhi.
- Sachdeva, S., Amir A. et al., 2010. Global developmental delay and its determinants among urban infants and toddlers: a cross sectional study, *The Indian Journal of Pediatrics*, Volume: 9, PP:975-980.
- Shivaji H. Pawar, Vaishali R. Mohite, 2012. Effectiveness of Self Instructional Module on Knowledge of mothers regarding Learning Disorders Among Children in Selected Schools at Karad City. *International Journal of Science and Research*, Volume: 21, pp-2382-2386.
- Suraj Gupta, 2006. Differential Diagnosis in Pediatrics, Jaypee Brothers, New Delhi.
- Suresh Sharma, 2011. Nursing research and statistics, Elsevier India Pvt Ltd, Haryana.
- Talbot, A.L. 1999. Principles and Practice of Nursing Research, St. Louis. Mosby Publishers, Edinburg.
- Terri Kyle, 2009. Essentials of Pediatric Nursing, Wolters Kluwer Pvt Ltd, New Delhi.
- William H Abelson and Garth Smith, 2005. Handbook of Pediatrics, Jaypee Brothers, New Delhi.
- Wong's, 2011. Essentials of pediatric Nursing, Mosby Publication, Philadelphia.
