Original Article

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Knowledge regarding Child Development among Mothers attending Clinic of Bheri Hospital, Banke

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ABSTRACT

Introduction: *Mothers should have knowledge that every child is unique in his/ her abilities. Mothers having more knowledge about child` s uniqueness and their developmental progress, prove to be more efficient mothers. A mother who has the proper knowledge of a child's development can be more alert for early screening of the child for any development. The objective of the study was to find out the knowledge of mothers regarding the development of their children.*

Methods: *A descriptive cross-sectional study was conducted in MCH clinic of Bheri Hospital Nepalgunj. Conveniently selected 66 mothers with at least one child aged under three years of age were included in the study. In person interviews were conducted using a semi structured interview questionnaire. The ethical approval was obtained from Institutional Review Committee of Institute of Medicine. Data analysis was done with the use of descriptive and inferential statistics.*

Results: *Finding showed that only 21.2% respondents had good knowledge, 18.2% had average knowledge and 60.61% had poor knowledge regarding child development.*

Conclusion: *Mothers attending MCH clinic tend to have poor knowledge regarding child development. Therefore, Informational programs should be launched for mothers to upgrade their knowledge about child development and able them to take prompt action for any developmental deviation of their children.*

Keywords: *Child Development, Knowledge, Mothers, Mothers' knowledge*

INTRODUCTION

Growth is an essential feature that distinguishes a child from an adult. The process of growth starts from the time of conception and continues until the child grows into a fully mature adult. The term growth and development are often used together but are not interchangeable because they represent two different facts of change, that is quantity and quality. Development means maturation of the body's functions. It is related to and depends on the maturation and myelination of the nervous system and indicates acquisition of variety of a skill for optimal functioning of the individual.[1]

Development during early childhood, especially from fetus to two-year-old (the first 1,000 days since life starts), is crucial in determining the nutrition and health status in the whole life course. Brain and nervous system development begins early in pregnancy and is largely complete by the time the child reaches the age of two. A poor start in life can lead to poor health, nutrition, and inadequate learning resulting in low adult productivity.[2]

Infancy is the period of a child from birth to one year of age. This year is known for its rapid growth and development with tripling birth weight and increasing length of 50%.[3]

The first five years of a child's life is a golden period for their development, fostering their future learning skills and social and emotional abilities due to rapid gains in physical and cognitive growth and development. Maternal psychological distress during pregnancy is known to affect behavioral, cognitive, socio-emotional, and psychomotor development of infants, while postpartum distress is known to contribute to cognitive and socio-emotional development of the children. In addition, depression in pregnancy was also found to be associated with higher developmental delays in infants. [4]

A study done in developing country, most mothers did not know that vision (52%), vocalization (79%), social smiling (59%) and overall brain development (68%) begin in the early months of life or that they should begin to talk to their children early (50%). There were nine items that ≥50% of mothers answered incorrectly. Four of these items were developmental skills. Only one item 'walking with good coordination' was answered correctly by ≥80% of them others. The timing of the developmental skill that were aware only (21%) mothers regarding ' vocalizing in response to someone talking'. The largest number of mothers (74%) were aware about the timing of the activity of children.[5] So, the objective of the study was to find out the knowledge of mother regarding development of child.

METHODS

A descriptive cross-sectional study was conducted in MCH clinic of Bheri hospital, Nepalgunj, Banke. The study population consisted of mothers attending MCH clinic for the immunization of their under three years' children. The in-person interview and the record review from the child's immunization card was used to collect data. Data collection instrument included a semi-structured interview schedule consisting of the socio-demographic information related questionnaire and knowledge related questionnaires. The knowledge related questionnaires consisted of different domains of child development: physical (gross-motor, and fine-motor), personal social behavior and language development. Mothers attending MCH clinic having under three years' children and were willing to participate in the study. Ethical approval of the research proposal was obtained from the Institutional Review Committee of Institute of Medicine Ref. No. 388/(6-11)2/077/078. Permission for data collection was taken from the study setting. Data collection was done after obtaining written informed consent for the respondents from March to May 2020. Duration of data collection was long due to less availability of mothers attending MCH clinic for immunization during COVID 19 pandemic. Obtained data were entered and analyzed using Statistical Package for Social Science (SPSS) 21 software program. Both descriptive statistics (mean, standard deviation and percentage) and inferential statistics (Chi-square test) were used for data analysis.

RESULTS

Table 1: Socio-demographic Characteristics of the Respondents (n=66)

Characteristics	Number	Percentage
Age (in completed years)		
Less or equal to 19	8	12.1
20 to 24	26	39.4
25 to 29	19	28.8
30 to 34	13	19.7
Ethnic Group		
Brahmin/Chhetri	12	18.2
Dalit	10	15.2
Janajati	15	22.7
Madhesi	17	25.8
Muslim	12	18.2
Religion		
Hindu	50	75.7
Muslim	12	18.2
Islam	4	6.1
Educational Status		
Can't read and write	15	22.7

Informal education	5	7.6
Primary level	10	15.2
Lower secondary level	10	15.2
Secondary level	15	22.7
Bachelor or higher level	11	16.7
Occupation		
Agriculture	8	12.1
Business	12	18.2
Housewife	25	37.9
Service	21	31.8
Number of Children		
1	31	47.0
2	21	31.8
3 or more	14	21.2
Type of family		
Joint	32	48.5
Nuclear	34	51.5

Table 1 revealed that less than half (39.4%) of the respondents belonged to the age group of 20-24 years. The highest proportion (25.8%) of respondents belonged to Madhesi caste and the majority (75.6%) were Hindu. Furthermore 77% respondents were literate, 22.7% of respondents studied secondary level. 37.9 % mothers were housewife. Less than half (47.0%) respondents have one child. More than half (51.5%) of respondents belonged to single family.

Table 2: Sources of Information

Sources of Information	Number	Percentage
Family/Friends/ Relatives	46	69.7
Self-Experience	52	78.8
TV/Radio/ Newspaper	45	68.2

**Multiple responses*

Table 2 shows that the majority (78.78%) of respondents got information through self-experience. More than half (69.69%) respondents got information through family/friends/relatives and TV/radio/newspaper respectively (68.18%).

Table 3: Respondents' Knowledge regarding Age of Gross Motor Development of Children (n =66)

Variables	Number	Percentage
Hold head at 4 months	18	27.3
Sit without others help at 8 months	37	56.7
Stand with support at 9 months	17	25.8
Able to transfer objects from one hand to another hand at 7 months	28	42.4
Hold small objects using thumb and forefinger at 9 months	17	25.8
Walk independently at 15 months	19	28.8
Do crawling at 8 months	23	34.8
Hold objects firmly at 6 months	13	19.7

Table 3 shows that only 27.3% respondents had knowledge regarding age of head hold correctly whereas, more than half (56.7%) knew about the correct age of sitting without other's help, and 25.8% respondents knew the correct age of standing with support. Able to transfer objects from hand to hand, less than half (42.4%) aware. Hold small objects using thumb and fore finger, only 25.8% mothers aware. Respondents' knowledge regarding walk independently is 25.8 %, crawling is 34.8% and hold object firmly is only 19.7 %.

Table 4: Knowledge of Respondents regarding Social and Language Development of Children (n=66)

Variables	Number	Percentage
Afraid to see stranger at 8 months	33	50.0
Wave bye after leaving others at 10 months	13	19.7
Laugh loudly at 4 months	12	18.2
Produce sound bi syllable 9 months	24	36.4
Recognize his/her mother at 3 months	33	50.0
Imitate other's words at 12 months	18	27.3
Begin to use my or mine at 24 months	23	34.8
Say his/her full name and gender at 36 months	7	10.6
Tolerate brief separation of mother at 15 months	17	25.8

Table 4 reveals that, 50% respondents had knowledge on child afraid to see stranger and recognize his/her mother, wave bye after leaving others 19.2%, laugh loudly 18.2%, produce sound bi-syllable 36.4 %, imitate others words (27.3%), begin to use my or mine(34.8%) able to say his/her full name and gender only 10.6 % tolerate brief separation of mother 25.8% mothers have knowledge respectively.

Table 5: Knowledge of Respondents regarding Fine Motor Development of Children (n =66)

Variables	Number	Percentage
A child can:		
Stand on one leg at 30 months	15	22.7
Hold cup with milk and drink easily at 18 months	24	36.4
Hold pencil properly to copy horizontal and vertical lines at 36 months	19	28.8

Table 5 shows that mother's knowledge on stand on one leg, 22.7%, hold cup with milk and drink easily 36.4%, hold pencil properly to copy horizontal and vertical lines 28.8%, mothers had given right answer.

Table 6: Level of Knowledge of Respondents regarding Development of Children (n =66)

Level of Knowledge	Number	Percentage
Good (>75%)	14	21.2
Average (50-75%)	12	18.2
Poor (<50%)	40	60.6
Total	66	100

Table 6 shows that the majority (60.6%) of mothers had poor knowledge (i.e.< 50% score), 18.2% mothers had average knowledge (i.e. 50-75% score), 21.2% mothers had good knowledge (i.e.>75% score).

Table 7: Association between Respondents' Level of Knowledge with Selected Variables

Variables	Levels of Knowledge		Chi-square	*p*-value
	Adequate (n=26)	Inadequate (n=40)		
	No.	No.		
Age of mother				
Under 25	14	28	1.777	0.183
Above 25	12	12		
Ethnicity				
Brahmin/ Chhetri	7	5.0	2.455	0.117
Non-Brahmin/ Chhetri	18	35.0		
Religion				
Hindu	17	29.0	0.378	0.539
Non-Hindu	9	11.0		
Educational status				
Illiterate	5	10	0.299	0.585
Literate	21	30		
Occupation				
Agriculture	19	27	0.232	0.63
Service	7	13		
Number of children				
+1	13	18	0.158	0.691
+2 or more	13	22		
Type of family				
Joint	11	21	.655	0.418
Nuclear	15	19		

Table 7 shows no statistically significant association of the respondents' level of knowledge with their age of mother, ethnicity, religion, educational status, occupation, number of children and type of family.

DISCUSSION

In this study, 21.2% mothers had good knowledge score (>75%) regarding development of children this finding is difference of findings of previous study done by David. D[6] shows that maximum number of mothers (53%) had good knowledge score regarding developmental milestones of infants. Mean percentage and rank order of knowledge score was highest in introduction (63%). The difference of findings of studies might be due to different setting, time period and population.

A study done in India showed that the level of maternal knowledge about child developmental milestones is low. Among the developmental milestones, physical and language milestones have the least knowledge. About 51% of mothers have the child developmental milestones. Almost 49% of mother's were lacking the knowledge about child developmental milestone where 27 % of mother underestimated the child development wherem17% of mother's are overestimating their child development. Result of the study showed that more than half of the mothers 40 (60.6%) had poor knowledge followed by 12(18.2%) in average knowledge and minority of the mothers 14(21.2%) had good knowledge on child development which is very similar to our level of knowledge regarding development of child.[7]

The result of the study showed that there is no any significant association with selected socio-demographic variables such as age, ethnicity, religion, educational status, occupation, number of children and type of family which is similar to our findings. In contrast to our study, a study conducted in India showed that development status of the child was found to be significantly associated with the family size of child.[8]

A descriptive cross-sectional study conducted in India on caregiver knowledge of child developmental inventory[9] was applied on caregivers to gather the responses. Result showed that caregiver's knowledge regarding the child development is low. Younger mothers and higher maternal education are associated with higher knowledge about the development of their children. This study also revealed that there was no association on maternal knowledge about child development with respect to mother's age, education, occupation, number of children. The results showed that mother's education was significantly associated with the parenting Skills.

A study conducted in Pakistan revealed that overall correct answered percentage about sensory & motor development assessed was 57.02%. The comparison about child development knowledge made on the basis of age, education and vocation of participants but no significant difference was observed on these three factors and the findings are very similar to our study.

CONCLUSION

It is concluded that mothers attending MCH clinic of Bheri Hospital tend to have insufficient knowledge regarding physical and social development of child. Educational programs are recommended for improving the level of knowledge of mothers regarding child development.

It is concluded that most of the mothers did not have sufficient knowledge regarding physical and social development of child. More than half mothers have poor knowledge and more than one fifth have good knowledge on growth and development of child. To improve the level of knowledge there should be educational program during immunization and postnatal period.

REFERENCES

1. Ghai OP. Essential Pediatrics. CBS publishers and distribution.9th edition ISBN:978-93-87964-10-5. 2019. p. 7

2. Agrawal D, Chaudhary SS, Sachdeva S, Mishra SK, Agrawal P. Prevalence of developmental delay and factors affecting the development status among under 5children in an urban city of Agra.2018

3. Park K. Textbook of preventive and Social Medicine. 18th ed. Jabalpur; Banarsidasbhanot Publishers, 2019

4. Butchon R. & Liabsuetrakul T. The development and growth of children aged under five years in North-eastern Thailand. Journal of child and adolescent behavior 2017.

5. Ertem IO, Atay G, Dogan DG, Bayhan A, Bingoler BE, Gok CG &Isikli S. Mother's knowledge of young child development in a developing country.2007

6. David D, Toppo KJ, & Saini. A study to assess the knowledge of mothers regarding developmental milestones of infant. International Journal of Current Research. 2014

7. Karuppannan A, Ramamoorthy T, Rammamoorthi A, & Ravichandran L. Mother's knowledge on child's developmental milestones and parenting skills in Kanchipuram district. Tamil Nadu. International Journal Health Science. 2020

8. Gaikawad L, Taluza Z, Kannuri NK, Singh S. Caregiver's knowledge, attitude &practices about early child development. International Journal of Pediatrics 2020

9. Sachdeva S, Amir A, Alam S, Khan Z, Khalique N & Ansari MA. Global developmental delay and its determinants among urban infants & toddlers: Indian pediatric journal 2010

10. Rehman AU, Kazmi SF &Munir F. Mother's knowledge about child development. Pakistan pediatric journal 2016.