

**Assessment of Awareness Regarding Developmental Milestones and Needs of Child among Caregivers in Selected Hospitals, Shillong, Meghalaya**

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**Abstract**

**Introduction:** Caregivers’ awareness of child development and needs is closely associated with positive child development outcomes. Caregivers play a crucial role in assessing child development through observation, helping to identify whether children are reaching their appropriate developmental milestones. However, awareness that caregivers have about child development and needs remains uncertain, which could reflect serious concerns about child health in Meghalaya. Therefore, this study was undertaken to identify the awareness of caregivers regarding children’s developmental milestones and their needs and to find out the association of awareness with selected demographic variables (age, gender, educational status and number of children under 5 years).

**Methodology:** A cross sectional study was conducted among the caregivers in selected hospitals Shillong, Meghalaya. A total of 106 caregivers were selected for the study using consecutive sampling technique.

**Result:** The findings of the study revealed that out of 106 caregivers, 92(86.8%) have average awareness, 12(11.3%) have poor awareness and 2(1.9%) have good awareness regarding developmental milestones and needs of child. The study also showed that there is an association of awareness with educational status of caregivers.

**Conclusion:** From the present study it is found that most of the caregivers have average awareness regarding developmental milestones and needs of child.

**Keywords:** Awareness, Caregiver, Child, Developmental Milestones, Needs of child.

## Introduction

Child development is a fundamental reflection of a child's overall growth and physical maturity. Since caregivers are the primary caretakers, the developmental milestones and needs of child rely on caregivers' level of awareness. Caregiver's recognition of children's developmental milestones has been correlated with more effective child care strategies and overall better outcomes for children. However, the awareness that caregivers have about developmental milestones remains uncertain, which has been reported in most of the research studies. This reflects serious concern about children's health.

Global estimates show that 52.9 million children under five years old have developmental disabilities and 95% of them live in low and middle-income countries. The screening and early detection have been emphasized for effective measures. Hence, the awareness of mothers regarding developmental milestones and needs of child play an important role towards early detection of developmental delays.

**Need of the study:** Similar studies have been conducted both internationally as well as nationally. However, at the regional level, till date, there appears to be limited research in this area. A survey of the literature revealed that very few articles have been published on awareness of caregivers regarding child's developmental milestones and needs. This study attempts to provide information about awareness among caregivers regarding developmental milestones and needs of child, which may be helpful in planning need based awareness program.

## Objectives

### Primary objectives

- a) To assess the awareness of caregivers regarding developmental milestones and needs of child in selected hospitals, Shillong, Meghalaya.

### Secondary objectives

- b) To find the association of awareness of the caregivers regarding developmental milestones and needs of the child with selected demographic variables (age, gender, educational status and number of children under 5 years).

## Research Methodology

### Research Approach

In this study, a quantitative research approach was finalized to assess the awareness of caregivers regarding developmental milestones and needs of child.

### Research Design

In this study, the research design used is the non-experimental cross-sectional study design.

### Variables

#### a) Independent variables

Socio demographic variables

- Age
- Gender
- Educational status
- Number of children under 5 years

#### b) Outcome variables

Awareness of caregivers regarding developmental milestones and needs of child

### Study Settings

The pilot study was conducted among caregivers in the Pediatrics Outpatient Department, Gynaecology Outpatient Department, Antenatal Ward, Postnatal ward of Ganesh Das Hospital, Shillong. The final study was conducted among care givers in the Pediatrics Outpatient and Inpatient Department, Gynaecology Outpatient Department, Antenatal Ward, Postnatal ward of NEIGRIHMS, Shillong.

### Ethical Considerations

In our study, prior permission was obtained from:

1. NEIGRIHMS Scientific Advisory Committee (NSAC)

2. Institutional Ethics Committee (IEC).
3. Medical superintendent of selected hospital.
4. Informed consent from participants

### Study Populations

The population comprised caregivers having at least one child under 5 years in Ganesh Das hospital, Shillong and North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences, Shillong.

### Sampling Technique

In our study, the sampling technique used is the consecutive sampling technique.

### Sample Size

Sample size is the number of subjects, events, behaviour or situations that were examined in the study.

The sample size was calculated using the following formula

$$N = Z^2 pq / d^2$$

Where,

N=Sample size calculation

Z<sup>2</sup>= Confidence interval = 1.96

p= Estimated proportion of population

q= 1- p

d=Margin of error

The sample size calculated for the pilot study was 32 and for the final study was 106.

### Criteria for Sample selection

#### Inclusion Criteria

- i) Caregivers having at least one child below 5 years of age.
- ii) Caregivers who can read and write.
- iii) Caregivers who are above 18 years of age and below 65 years of age.

#### Exclusion Criteria

- Caregivers who are not willing to participate in the study.

### Development of Data Collection Tool

The following steps were adopted prior to the development of the tool:

- An extensive review of literature was conducted from books, research journals, online resources, books related to the research subjects.
- Suggestions from experts were obtained.
- Personal experience of the investigators was noted, discussion with the colleagues were also carried out.

### Description of Data Collection Tools and Technique:

The tool used for our research study to collect the data is a self-administered questionnaire. It consists of 2 sections

**Section 1-** 4 questions related to socio-demographic data of the caregivers

**Section 2-** 33 questions related to awareness of the caregivers regarding developmental milestones and needs of child.

### Validity

The validation of the data collection tools for content and language was done by the experts from different specialties. For the content validity, the data collection tool was submitted for analysis and feedback to experts from the Department of Paediatrics, Obstetrics and Gynaecology, Community Medicine, Nursing tutors (Obstetrics and Gynecology department), NEIGRIHMS, Shillong; Department of Paediatrics, Ganesh Das Hospital, Shillong; Nursing Tutor (Paediatrics department) Civil Hospital, Shillong and Public Health Nursing Management Expert, Health Complex, Shillong. The above- mentioned experts' suggestions and opinions were compiled and incorporated into the final version of the tool. Further, the tool was submitted to the language experts to be validated by them. The tool was then translated to Khasi and Hindi languages and validated by experts in English, Khasi and Hindi literatures.

### Pilot Study

A pilot study was conducted from 26<sup>th</sup> February to 2<sup>nd</sup> March, 2024 at Ganesh Das Hospital, Shillong after obtaining formal permission from the Directorate of Health Services Shillong, Meghalaya. Consent was obtained from the caregivers to involve them in the study. The total sample of the study consists of 32 caregivers having at least one child under 5 years. The caregivers took approximately 10-15 minutes to complete the questionnaire. At the end of the pilot study, the tool was found to be clear and easily understood by caregivers and it provided reliable data. The pilot study revealed that it was feasible to carry out the final study as proposed.

### Data Collection Procedure

The final data collection was done from 25<sup>th</sup> March to 5<sup>th</sup> April, 2024. Permission was obtained from the Directorate of health services, Meghalaya and the Medical Superintendent, NEIGRIHIMS, Shillong, Meghalaya. The study was conducted after obtaining permission.

Prior to the data collection, informed consent was taken from the caregivers. The procedure and the purpose of the study were explained to them. The caregivers were also made aware of the confidentiality and anonymity of the results. Thereafter, the caregivers were instructed to proceed with the self-administered questionnaire. The caregivers took approximately 10-15 minutes to complete it.

### Scoring of the Tool

**Section I:** It consists of socio-demographic characteristics and was not scored.

**Section II:** It consists of 33 awareness-based questions to assess the level of awareness of caregivers regarding developmental milestones and needs of child, in such a

way that for each correct response 1 mark is given. There is no negative marking given for a negative response.

The maximum score is 33 and the minimum score is 0.

### Interpretation of Score

Knowledge score was categorized into three categories:

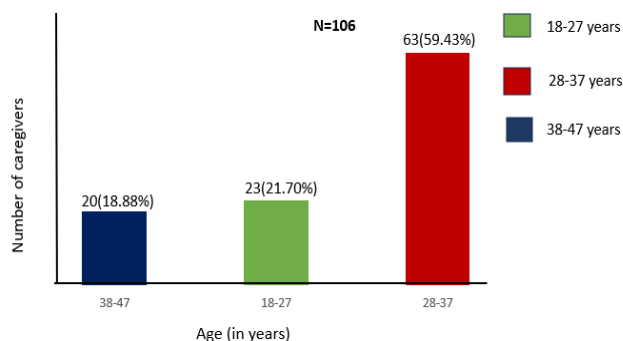
CATEGORY	Range of score
Good awareness	21-33
Average awareness	11-20
Poor awareness	0-10

## Results

### Section 1

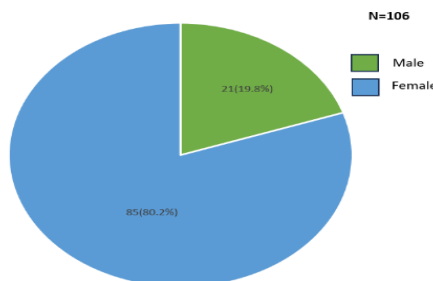
Findings related to the socio-demographic data of the caregivers.

Figure 1: Bar graph showing the distribution of the caregivers according to age



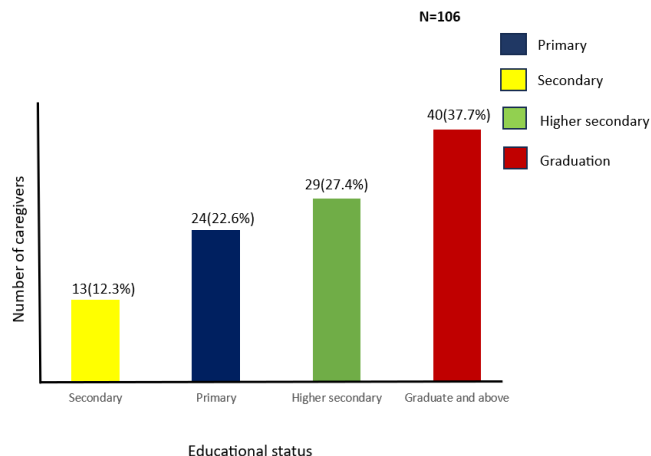
The data presented in figure 1 shows that out of 106 caregivers, maximum caregivers i.e., 63 (59.4%) caregivers belong to the age group of 28-37 and minimum i.e., 20 (18.9%) caregivers belong to the age group of 38-47.

Figure 2: Pie-diagram showing the distribution of the caregivers according to gender



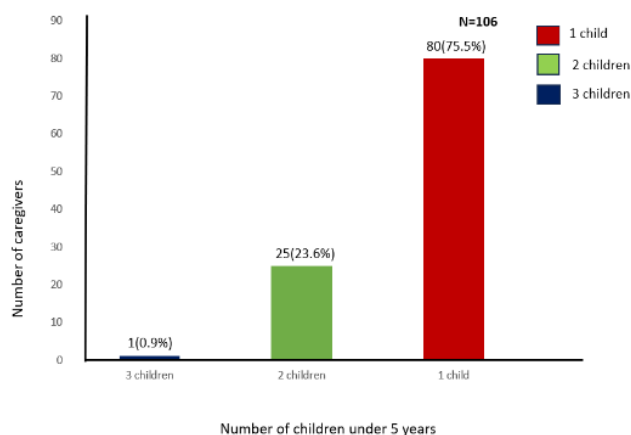
The data presented in figure 2 shows that out of 106 caregivers, maximum caregivers i.e., 85 (80.2%) caregivers are female and 21 (19.8%) are male.

Figure 3: Bar graph showing the distribution of the caregivers according to educational status



The data presented in figure 3 shows that out of 106 caregivers, maximum i.e., 40(37.7%) caregivers are graduates and above, and minimum i.e.,13 caregivers (12.3%) have passed the secondary level of education.

Figure 4: Bar graph showing the distribution of the caregivers according to number of children under 5 years

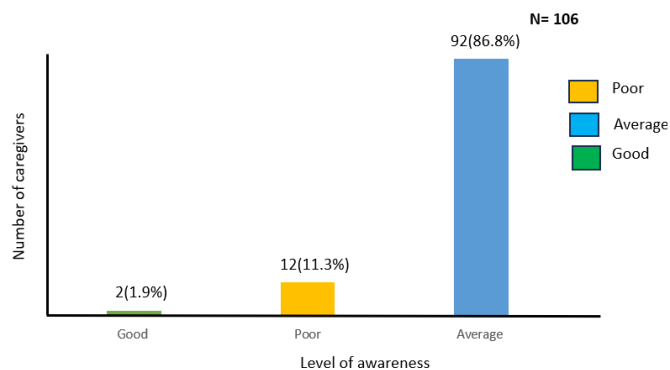


The data presented in figure 4 shows that out of 106 caregivers, maximum i.e., 80(75.5%) caregivers have 1 child and minimum i.e.,1 caregiver (0.9%) have 3 children.

## Section 2

Findings related to the awareness of caregivers regarding developmental milestones and needs of child.

Figure 5: Bar diagram showing distribution of the caregivers according to their level of awareness regarding developmental milestones and needs of child.



The data presented in figure 5 shows that out of 106 caregivers, maximum i.e., 92 (86.8%) caregivers have average awareness regarding developmental milestones and needs of child.

Table 1: Area wise mean awareness score regarding developmental milestones and needs of child obtained by the caregivers and ranking of the areas

Content areas	Number of items	Maximum possible score	Total awareness score obtained	Mean awareness score	Rank
General information	3	318	164	51.5	IV
Physical development	11	1166	466	39.9	II
Cognitive development	2	212	101	47.6	III
Language development	8	848	209	24.6	I
Psychosocial development	3	318	168	52.8	V
Needs of child	6	636	423	66.5	VI

Data in table 1 shows the mean awareness scores obtained by the caregivers having children under 5 years in all the six areas. Area-wise mean awareness score was obtained by dividing the total obtained score on all the items in respective area. The data reveals that the lowest mean awareness score (24.6) was in the area of language development. This indicated that the maximum

awareness deficit existed in the area of language development followed by physical development area (39.9).

### Section 3

Findings related to association of awareness regarding developmental milestones and needs of child among caregivers with selected variables (age, gender, educational status, number of children under 5 years) of the caregivers.

Table 2: Association of awareness regarding developmental milestones and needs of child among caregivers with demographic variables (age, gender, educational status and number of children under 5 years)

N= 106

Sl. No	Demographic Variables	Awareness			Fishers Exact value	Df	p value
		Poor	Average	Good			
1	Age in years				4.266	4	0.338 <sup>NS</sup>
	a. 18-27 years	2	20	1			
	b. 28-37 years	7	56	0			
2	Gender				3.892	2	0.116 <sup>NS</sup>
	a. Male	5	16	0			
	b. Female	7	76	2			
3	Educational status				12.73	6	0.011*
	a. Primary	6	18	0			
	b. Secondary	3	9	1			
	c. Higher secondary	2	27	0			
4	Number of children under 5 years				4.856	1	0.472 <sup>NS</sup>
	a. 1	11	67	2			
	b. 2	1	24	0			
	c. 3	0	1	0			

\*p value < 0.05 level of significance

NS-Non-Significant

Table 2 depicts the association between awareness regarding developmental milestones and needs of child among caregivers and selected demographic variables which was tested by using fisher’s exact test. Result showed that educational status of caregivers was found significant at p<0.05 level but age, gender and number of children under 5 years were found to be non-significant at p<0.05 with awareness regarding developmental milestones and needs of child among caregivers.

### Discussion

The study reveals that the caregivers have the lowest mean awareness score (24.6%) in the area of language development. A similar study conducted by Desai Anushka et. al (2024) in Maharashtra revealed that mothers have limited knowledge in the area of language development (33.15%).

### Conclusion

Finding of the study revealed that majority of the caregivers have average awareness regarding developmental milestones and needs of child. Caregivers have the lowest mean awareness score (24.6) in the area of language development, while they have the highest mean awareness score (66.5) in the area of needs of child. The study shows that there is an association of awareness regarding developmental milestones and needs of child with educational status of the caregivers.

### References

1. Panchali Pal, Textbook of Pediatric nursing for Nursing students, Second edition, CBS Publishers and Distributors Pvt. Ltd., Page no. 51-91
2. Piyush Gupta, Essential Pediatric Nursing, Fifth edition, Published by Jaypee brothers, Page no. 119
3. IAP Textbook of Pediatrics, Seventh Edition, Published by Jaypee, page no. 141-153
4. OP Ghai, Vinod K. Paul, Arvind Bagga, Ghai Essentials Pediatrics, Seventh Edition, Page no.1-7
5. Marilyn. J. Hockenber, David Wilson, Wong’s essentials of pediatric nursing, eighth edition, page no. 74 – 95
6. Atiq Ur Rehman, Syeda Farhana Kazmi, Farrukh Munir.Mother’s knowledge about child development. Pak Pediatric Journal 2016:40(3) :176-81
7. Alqurashi,Faisal O;Awary ,Bassam H; Khan ,Basim F et.al .Assessing knowledge of Saudi mothers with regard to parenting and child developmental

- milestones. *Journal of family and Community Medicine* 28(3):p 202-209, Sep-Dec 2021
8. Abdul Rahman S Aldayel, Abdulaziz A Aldayel, Ahmad M. Amutairi et.al. Parental knowledge of children's developmental milestones in Riyadh, Saudi Arabia. *International Journal of Pediatrics* 2020(1), 8889912, 2020
  9. RR Safadi, M Ahmed et.al. Mothers' knowledge of infant's childrearing and developmental milestones in Amman, Jordan. *International Nursing Review* 63(1), 50-59, 2016
  10. Arul Murugan Karuppanan, Thilagabathi Ramamoorthy et.al. Mother's knowledge on child developmental milestones and parenting skills in Kanchipuram District, Tamil Nadu. *International Journal Of Health Science and Research*, Volume 10 (2), 242-7, 2020. ISSN 2249-9571
  11. Ravinder Kumar, Narendra Kumar Kaushik et.al. Knowledge of mothers towards growth and development of them under 5 years children in Western Rajasthan. *Medical Journal of Babylon* 19(3), 453-458, 2022
  12. Kaur Manpreet, Kaur Narender, Natasha, Kaur Navjot, Kaur Navneet, Kaur Navpreet, Kaur Simarjit. Knowledge of mothers regarding developmental milestones of infants. *International Journal of Advances in Nursing Management* 2022, volume 10, issue 4315-320, Article DOI: 10.52711/ 2454/ 2652.202200071
  13. Suman Sarah Varghese, Merlyn Joseph, Rachna Gohil, Sanjana Thomas, Sandra Mary Jose, Presty Lukose, Avita Rose Johnson. Mother's awareness about early childhood developmental milestones at a maternity hospital in rural South India. *Indian Journal of Child Health*. Vol. 7 No. 11(2020), 441-445: November 2020
  14. Dr. B.T. Basavanthappa, *Pediatric/Child Health Nursing*, First edition, Ahuja Publishing House, page no. 29-78
  15. Rimple Sharma, *Essentials of pediatric nursing*, Third edition, Jaypee, page no. 55-85
  16. J N Sharma, *Principles and practice of pediatrics*, Second edition, PEEPEE, page no. 81-135
  17. Colind. Rudolph/ Abraham M. Rudolph/ George E. Lister/ Lewis R. First/ Anne A. Gerhon, *Rudolph's Pediatrics*, 22<sup>nd</sup> edition, Mc Graw Hill education| Medical, page no. 305-313
  18. Swarna Rekha Bhat, *Achar's Textbook of Pediatrics*, Fourth edition, Universities press, page no. 23-34
  19. Assuma Beevi T. M., *Concise Textbook of Pediatric Nursing*, Second edition, ELSEVIER, page no. 93-142
  20. U. N. Panda, *Pediatric Nursing*, AITBS publishers, India, page no. 11-21
  21. Marilyn J. Hockenberry, Wilson, Winkelstein, Wong's *Essentials of Pediatric Nursing*, Seventh edition, ELSEVIER, page no. 308-319, 417-428
  22. John W. Santrock, *Child Development*, Thirteenth edition, TATA McGraw-Hill edition, page no. 105-364
  23. Desai Anushka et. al. Knowledge about the developmental milestones of children in primiparous mothers in Maharashtra. *Journal of Ecophysiology and Occupational Health*. Vol. 24, Issue 2, June 2024