

Frequency of Inattentive Attitude of Mothers towards Child's Milestones Among Mothers of Karachi

Inattentive Attitude of Mothers Towards Child's Milestones Among Mothers

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ABSTRACT

Objective: To assess mother's knowledge about timely achievement of a child's milestone from birth to age 3. To assess mother's awareness about Physical, Intellectual, Social and emotional and Language development of a child.

Study Design: Cross sectional study

Place and Duration of Study: This study was conducted at the Community Medicine, SMC, JSMU Karachi from March 2018 to August 2018.

Materials and Methods: A cross sectional study was conducted across five districts of Karachi. The districts where study was conducted included District East, West, South, North and Central Districts. The sample size of 284 mothers was drawn through non-probability purposive sampling. Data was collected through structured questionnaire. Pilot study was done to check the authenticity of questionnaire. Data was entered and analysed on statistical package for social sciences (SPSS version 20) with 95% confidence interval and 5% margin of error. P-value less than 0.005 were considered statistically significant.

Results: Out of 284 mothers, the mean age was 29.5 years ranging from 20 to 45 years. 64.8% (0.002) mothers didn't know when a child is able to roll over. 68.3% (0.022) mothers didn't know when a child starts to sit with support. 58% (0.030) mothers didn't know when a child is able to stand with support. 70.4% (0.005) mothers didn't know when a child is able to run forward. 76.8% (0.004) mothers didn't know when a child is able to recognize primary care givers. 76.1% (0.003) mothers didn't know when a child is able to pay attention to his/her own name. 62% (0.002) mothers didn't know when a child is able to feed himself/herself with finger foods. 72.2% (0.000) mothers didn't know when a child is able to indicate urge for defecation and urination. 80.3% (0.001) mothers didn't know when a child shows stranger shyness. 72.5% (0.000) mothers were unable to tell when a child is able to form a complete sentence. 57% (0.000) mothers didn't know when a child is able to say double syllable words. 56.3% (0.014) mothers didn't know when a child is able to name pictured objects.

Conclusion: The study concluded that mothers had insufficient knowledge about child's physical development and mother's awareness about child's intellectual, social and language development was extremely poor.

Key Words: Child + Development+ Milestones+ Awareness+ Attitude

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INTRODUCTION

Learning begins at birth. It's a gradual process that picks up pace as strong connection are made between neurons. Child's receptiveness to new influences and ability to learn complex things are at peak in initial stages of life.

A developmental milestone is attainment of different abilities by a child on monthly basis. A new born infant will show what appears to be random but symmetrical movement of arms and legs.

During next stage of development, which usually occurs somewhere around 6 months of age, they will begin to reach for specific objects with their arm. Somewhere around 1 year of age most children can reach for small blocks or rattle and pick them up¹ These can be evaluated with the help of standardized growth chart.

The level of awareness in mother can be influenced by maternal age, educational status and parity. Increasing mother's age was associated with improved health and development for child up to 5 years of age² And also low parity mother were independently protective from childhood death³

As problem related physical development manifest early and are easy recognizable, parental knowledge regarding physical development are fairly sound. The knowledge of physical development exceeds knowledge of cognitive, emotional and social development. Parents were aware of importance of positive experiences in influencing their child development⁴

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On the other hand, several factors on part of child can influence his development, despite the mother being competent with knowledge of milestone like physical characteristics, wellness and family nurturing methods. Exposure to biological and environmental risk factors such as chronic poverty can compromise child development leading to a loss in cognitive and developmental potential⁵

Knowledge of developmental milestones in mothers is important in relation to the development of child and early detection of any abnormality. This would help in early intervention, prompt treatment and prevent disability.

MATERIALS AND METHODS

The cross-sectional Study was conducted in five districts of Karachi. The districts included District East, West, South, North and Central Districts from March 2018- August 2018. It was non-probability purposive sampling.

Inclusion Criteria: Mothers with at least one breast feeding child.

Exclusion Criteria: Mothers who refused to take part in study. The sample size of 284 mothers was drawn through non-probability purposive sampling method. Data was collected through structured questionnaire. Pilot study was done to check the authenticity of questionnaire. Data was entered and analysed on statistical package for social sciences (SPSS version 20) with 95% confidence interval and 5% margin of error. P-value less than 0.005 were considered statistically significant.

Ethical Consideration: Informed consent was taken from mothers

RESULTS

Out of 284 mothers, the mean age was 29.5 years ranging from 20 to 45 years.

Awareness of physical development: 64.8% (0.002) mothers didn't know when a child is able to roll over. 68.3% (0.022) mothers didn't know when a child starts to sit with support. 58% (0.030) mothers didn't know when a child is able to stand with support. 70.4% (0.005) mothers didn't know when a child is able to run forward.

Awareness of social and emotional development: 76.8% (0.004) mothers didn't know when a child is able to recognize primary care givers. 76.1% (0.003) mothers didn't know when a child is able to pay attention to his/her own name. 62% (0.002) mothers didn't know when a child is able to feed himself/herself with finger foods. 72.2% (0.000) mothers didn't know when a child is able to indicate urge for defecation and urination.

Awareness of intellectual development: 80.3% (0.001) mothers didn't know when a child shows

stranger shyness. 72.5% (0.000) mothers were unable to tell when a child is able to form a complete sentence.

Awareness of language development: 57% (0.000) mothers didn't know when a child is able to say double syllable words. 56.3% (0.014) mothers didn't know when a child is able to name pictured objects.

DISCUSSION

The study assessed gaps in knowledge of mothers about a child's developmental milestones from birth to age three. Mothers were asked questions to give their opinions about age at which a normal child should begin to accomplish standard developmental milestones. The questionnaire covered four domains of child's development; physical, social and emotional, intellectual and language. The study assessed maternal knowledge of child development and whether the level of knowledge varies by content area.

Growth and development are two different entities. Growth refers to increase in physical size i.e., increase in height and weight. But developments related to the child's ability to do difficult and advanced things with the passage of time. In Paediatrics medicine, Developmental milestones are a collection of functional skills as well as physical tasks specified with a certain age range⁶ although each milestone has an age level, the actual age when a child achieved that milestone could be different from other children of the same age group. It has been observed that some children start to speak and walk at a later age as compared with other children of the same age doing that earlier.

There are many different methods to determine the growth and development of a child. Several models have been proposed that incorporate a range of factors encompassing child's physical, motor, cognitive, language, social and emotional development. Each child develops at his own pace so it's important to realize that there is wide variation in terms of what is considered "normal". A child development is broadly influenced by a wide variety of genetic, cognitive, physical, family, cultural, nutritional, educational, and environmental factors⁷

It was found in this study that majority of the mothers knew correctly when a child is able to hold his/her neck when put to sit. A child's motor skills and neck muscles are fairly weak at birth so he/she learns to hold the head by three months. Rest of the women overestimated the age for this milestone. A study done in a developing country showed that mothers believed that most developmental skills and activities should occur at later than normative ages and most mothers did not know that sight, vocalization, social smiling and overall brain development begins in the early months of life⁸ Majority of the mothers didn't know when a child gets capable to sit with support. A child begins to show willingness to sit without support on his/her own earlier if the mother sits him/her up with support of a couch/pillow in the

fourth to fifth months of life. Mothers could not tell when a child is able to distinguish family from strangers. At around seven months, a child will probably cry when he/she is in the arms of anyone else except the primary care giver which is why he/she becomes clingy.

In the beginning a child says single syllables but with time he/she learns to speak complex and meaningful sentences. Mothers didn't know at what age a child starts speaking double syllables like 'mama' & 'baba'. Maternal sensitivity is associated with early intentional communication particularly the use of communicative gestures, and also with symbolic behaviour and later comprehensive skills⁹ A study examined a comprehensive set of predictors of preschool language performance. It was revealed that having a poor language-learning home environment was associated with children's low language scores¹⁰

Language is the foundation of communication. If hearing impairment exists from birth or occurs at a young age, speech will be affected severely. A study showed that children whose hearing losses were identified by 6 months of age demonstrated significantly better language scores than children identified after 6 months of age¹¹ Mothers knowledge of speech milestones can indicate hearing loss or delayed language development. Therefore, it is emphasized to report any developmental delay as it may indicate any underlying disease or deficiency so it can help in early diagnosis and effective treatment. A child learns to put together short words to make a complete sentence at around the age of two. The study showed that half of the mothers didn't know the age at which a child is capable to form a complete sensible sentence. In one study it was observed that mothers' knowledge about cognitive, language, and motor abilities was stronger than their knowledge about abilities in play and social development. Across domains, mothers were more accurate at estimating the ages of abilities that emerge in the first year than those occurring during child's second and third years¹²

The study shows mothers didn't know at what age a child is able to feed him/herself with finger foods. A child between seven and eleven months old usually tries to grab food from mother and soon develops the 'pincer grasp' by ninth month that allows him/her to pick up small objects between thumb and forefinger. At this point, a mother should introduce small pieces of cooked vegetables or pea sized bites of chicken/meat to fulfill his/her nutritional requirements. In a study, 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 did not¹³

The study revealed that mothers couldn't tell the age at which a child is able to run forward which shows mother's negligence towards child's physical

development. Being able to run forward, kick a stationary ball or jump in one place by age three are some of the major physical milestone achievements. Mothers didn't know at what age a child begins to indicate an urge for defecation and urination. In a study it was found out that girls achieve nearly all toilet-training skills earlier than boys, including successful completion. Most children do not master the readiness skills until after the second birthday¹⁴

Children who do not get proper breastfeeding, are physically deprived or malnourished have increased risk of delayed achievement of developmental milestones.

A study examined maternal reports of the health and attainment of developmental milestones for breast-fed vs. formula-fed infants. The study showed smiling to be reported earlier for the infants of breast-feeding mothers. Formula-feeding mothers were quicker to introduce their infants to solid foods. Ratings of physical health were comparatively better for the breastfed than for the bottle-fed infants¹⁵ Breastfeeding also influences development of brain. A study done to investigate the association between exclusive breastfeeding and three developmental milestones related to general and fine motor skills and early language development at the age of 8 months. The proportion of infants who achieved the specific milestones increased consistently with increasing duration of breastfeeding¹⁶ Child's nutrition, healthy growth and development also depend upon financial status. Poverty and associated health, nutrition, and social factors prevent at least 200 million children in developing countries from attaining their developmental potential¹⁷ As nutrition, growth monitoring and immunization programs have dramatically increased the rates of child survival throughout the developing world there has been a ground swell of interest in going beyond survival to increase children's chances for optimal development. Past experience has shown that when developmental monitoring and stimulation programs are added to health and nutrition programs the rates of both physical and mental development may be improved¹⁸

Parental knowledge of child development has been associated with more effective parenting strategies and better child outcomes¹⁹ A survey was conducted to gauge knowledge of developmental milestones among Albertan Adults where it was found out that the majority of parents were not able to correctly answer questions related to when children under three years of age typically achieves developmental milestones. Parents were not aware of the importance of positive experiences in influencing their children's development. Mothers are the primary care givers in our society so her awareness about milestones is most important. Paediatricians should incorporate developmental surveillance at every health supervision visit.

Surveillance should involve analysing the milestones in the context of a child's history, growth, and physical examination findings to recognize those who may be at risk for developmental delay. A thorough understanding of the normal or typical sequence of development in all domains allows the clinician to formulate a correct overall impression of a child's true developmental status²⁰ Also, nutritional intervention programs had been successful in making people aware about nutritional milestones like colostrum, breastfeeding and weaning²¹ Timely achievement of milestones also depends upon the weight of an infant at birth. It has been found that low birth weight is significantly associated with delay in achieving all developmental milestones including lifting of the head, tooth eruption, sitting without support, walking without help, speech as saying words with meaning, and bedwetting cessation²² It shows that mothers should maintain healthy eating and good nutrition during pregnancy.

Mothers should be made aware about child's normal development so if any developmental delay is reported, its cause can be detected and promptly treated. The cause may be primary/hereditary or acquired, it's depends upon mothers knowledge which would help her identify the disease earlier. Mothers should also be made aware about growth charts so they can monitor their child's development at home. Growth charts used should be simple and easy to understand for the general population. This will decrease the disability and morbidity burden on the population. Government should take measures to impart milestones awareness to the expecting mothers visiting antenatal clinics. In fact, there is a need to raise awareness in both the parents by holding didactic awareness sessions and seminars in public where they can be trained by qualified instructors about normal developmental milestones²³ Primary care physicians, because they routinely see children less than 5 years of age for preventive care visits, can play a key role in the early identification of developmental delays²⁴ Precise determination of a child's milestones depends on the parent's recollection of developmental events²⁵ So it's very important to pay keen attention to each domain of child development. Such measures will decrease the disability and morbidity burden on the society. Monitoring of growth and development of children is the key to a healthy generation.

CONCLUSION

The study concluded that mothers had insufficient knowledge about child's physical development and mother's awareness about child's intellectual, social and language development was extremely poor.

Author's Contribution:

Concept & Design of Study: Tafazzul H Zaidi
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Revisiting Critically: Tafazzul H Zaidi, Irfan Ashraf
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Conflict of Interest: The study has no conflict of interest to declare by any author.

REFERENCES

1. Mrozek-Budzyn D, Kiełtyka MA, Kiełtyka MA. Validity and clinical utility of children development assessment using milestones reported by mothers. Validity and clinical utility of children development assessment using milestones reported by mothers. *Przegląd Epidemiologiczny* 2014; 68(1):71-5, 153-5
2. Sutcliffe AG, Barnes J, Belsky J, Gardian J, Melhuish E. The health and development of children born to older mothers in the United Kingdom: observational study using longitudinal cohort data. *BMJ* 2012;345:e5116.
3. Girma B, Berhane Y. Children who were vaccinated, breast feed and from low parity mothers live longer: A community base case-control study in Jimma, Ethiopia. *BMC Public Health* 2011;11(197):1-7
4. Rikhy S, Tough S, Trute B. Gauging knowledge of developmental milestones among Albertan Adults. *BMC Public Health* 2010;10:183.
5. Abubakar A, Holding P, Vijver FV. Developmental monitoring using caregiver reports in a resource-limited setting: the case of Kilifi, Kenya. *Acta Paediatr* 2010;99(2):291-297.
6. Rowe ML. A Longitudinal Investigation of the Role of Quantity and Quality of Child-Directed Speech in Vocabulary Development. *Child Development* 2012;83(5):1762-1774.
7. Maggi S, Irwin LJ, Siddiqi A. The social determinants of early child development: An overview. *J Pediatr Child Health* 2010; 46(11): 627-635
8. Hertzman C, Ertem IO, Atay G, Dogan DG, Bayhan A, Gok CG, et al. Mothers' knowledge of young child development in developing country. *Child: Care, health and development* 2007;33 (6):728-737.
9. Paavola L, Kemppinen K, Kumpulainen K, Moilanen I, Ebeling H. Maternal sensitivity, infant co-operation And early linguistic development: Some predictive relation. *Eur J Developmental Psychol* 2006; 3(1):13-30.
10. Oxford M, Spieker S. Pre-school language development among children of adolescent mothers. *J Appl Dev Psychol* 2006;27(2):165-182.
11. Fulcher A, Purcell AA, Baker E, Munro N. Listen up: Children with early identified hearing loss achieve age-appropriate speech/language outcomes

- by 3 years-of-age. *Int J Pediatr Otorhinolaryngol* 2012;76(12):1785-1794.
12. Catherine S., Lemonada T, Shannon J, Spellmann M. Low income adolescent mothers' knowledge about domains of child development. *Infant Mental Health J* 2002;23(1-2): 88-103.
 13. Carruth BR, Ziegler PJ, Gordon A, Kristy Hendricks. Developmental milestones and self-feeding behaviors in infants and toddlers. *J Am Dietetic Assoc* 2004; 104:51-56.
 14. Kiddoo DA. Toilet training children: when to start and how to train. *CMAJ* 2012;184(5):511-512.
 15. Worobey J. Development milestones related to feeding status: evidence from the Child Health Supplement to the 1981 National Health Interview Survey. *J Human Nutr Dietetics* 2008;5(6): 363-369.
 16. Nyqvist KH, Haagkvist AP. Expansion of the Baby-Friendly Hospital Initiative Ten Steps to Successful Breastfeeding into Neonatal Intensive Care. *J Human Lactation* 2013;29(3):300-309.
 17. Walker SP, Wachs TD, Gardner JM, Lozoff B, Wasserman GA, Pollitt E, et al. Carter. Child development: risk factors for adverse outcomes in developing countries. *Lancet* 2007;369(9556): 145-157
 18. Colletta ND, Satoto, Sockaling-Ham S, Zeitlin M. The child development milestone chart-An approach to low cost programming in Indonesia. *Early Child Development and Care* 2006;96(1): 161-171.
 19. Rikhy S, Tough S, Trute B, Benzie K, Kehler H, Johnston DW. Gauging knowledge of developmental milestones among Albertan adults: A cross sectional survey. *BMC Public health* 2010; 10(1):183.
 20. Gerber RJ, Wilks T, Lalena CE. Developmental Milestones: Motor Development. *Pediatr Review* 2010;31:267-277.
 21. Katara C, Shrivastava C, Jain S. .Socio-cultural factors as determinants of nutritional awareness in mothers of preschool children in Gwalior City. *Indian J Nutr Dietetics* 2009;46:298-303.
 22. Liu X, Sun Z, Neiderhiser JM, Uchiyama M, Okawa M. Low birth weight, developmental milestones, and behavioral problems in Chinese children and adolescents. *Psychiatry Research* 2001;101(2):115-129.
 23. Mushtaq A, Rehman A. Developmental milestones: Do the parents know enough? *J Pak Med Assoc* 2012; 62: 991.
 24. Sices L, Feudtner C, McLaughlin J. How Do Primary Care Physicians Identify Young Children with Developmental Delays? A National Survey. *Journal of Developmental And Behavioural Paediatrics* 2003;24(6):409-417
 25. Majnemer A, Rosenblatt B. Reliability of parental recall of developmental milestones. *Paediatr Neurol* 1994;10(4):304-308.