

Child development and Nutritional status of the children under five years of age in Manmunai West Divisional Secretariat areas of Batticaloa District, Sri Lanka

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Abstract

Nutrition related issues to the child are the most important concern in the world which ultimately influence on both child as well as the nation while considering them as the future generation to whole developmental attributes. Statistic shows that the birth rate and death rate of the child are higher in the developing countries while comparing with the developed countries where the nutritional status is in an advance. According to that, present study was carried out in the Manmunai West Divisional Secretariat in the Batticaloa District of Sri Lanka to determine the clinical issues and the nutritional status of the children. The study sample was consisting 283 families having the child below five years of age. A pre-tested questionnaire was used to collect the information related with the household data, clinical conditions of the child, and the nutritional status of the child during household visits. Finally, the data were analysed using SPSS (19 version) software. Results revealed that the average number of the family members in the household was three which was supported by the responding value of 30.4% and all the people were with the ethnicity of Tamil. As the village is now under the developing conditions, head of the household move to abroad and left their children with the father (2%), mother (24%) and relatives (4%) while the majority of the children were with both parents (70%). Further, the average birth weight of the child was within 2-3 kg (>45%) where the physical and mental disorders during the birth were rare. Around 98.6% of the respondents had regular visit to the MOH office and updated the nutritional status of their children and have the capability to explain the conditions of their child (91.9%). As the result of the health condition of the child, nearly 20% of the children were underweight which was under the improved condition (46.6%). Additionally the developmental status was began with the age of 0-6 months (97.5%), 11-12 months (45.9%), 11-14 months (55.8%) and 2-3 years (53.4%) for smiling, walking, speaking and eating independently, respectively. However, needs some attention on behalf of the growth rate of the children in Manmunai West Divisional Secretariat in the Batticaloa district.

Keywords: Nutritional status, Growth rate, Health conditions, Birth weight, Clinical issues.

Introduction

Child malnutrition is the most pressing problem of the world, damaging both children and the nations¹. Significant proportion of deaths of young children worldwide is due to malnutrition and efforts to reduce malnutrition should be a policy priority². The level of childhood malnutrition is exceptionally high in South Asia, ranging from 45-48% in India, Bangladesh and Nepal, 38% in Pakistan and 30% in Sri Lanka. The underlying causes of malnutrition vary from poverty, low levels of education and poor access to health services³.

According to Sri Lanka Demographic and Health Survey (2007), 21.6 % of children less than 5 years in Sri Lanka were underweight⁴. Although inadequate food intake is a basic cause for under nutrition, several other factors such as living standards, water and sanitation, birth weight, birth interval and parity, weaning practices and mother's education have been contributing to incidence of malnutrition among the preschool children. Many countries with a similar level of GNI per capita

have significantly lower underweight prevalence than Sri Lanka. While higher per capita incomes among this group generally correlate with better nutritional outcomes among the population, no clear pattern exists in the relationship between national income levels and under nutrition⁵. According to the profile of the Batticaloa District, total population has been recorded as 515,857 and around 17% (88,459) of the people accumulated in the Manmunai west Divisional Secretariat Division which is now under developing conditions⁶.

Further, the available health care clinical sites are 56 and 26 as hospitals and health centers, respectively. Also, the value for Under-5 aged children's underweight as 38.2%, wasting as 14.4% and stunting as 24.7%. Both men and women are ready to work in outside in some rural areas and getting more income thus their living standard was improved. Because of these conditions, children are left with relatives and their health conditions become special considerations towards the future. Therefore, the present study was conducted to determine the clinical status and the growth pattern of children below five (05)

years of age in Manmunai West Divisional Secretariat of Batticaloa District of Sri Lanka and to evaluate practices of mothers with child feeding practices including breastfeeding, awareness on both clinical aspects as well as the developmental status.

Methodology

This study was conducted at 40 villages of Manmunai West Divisional Secretariat of the Batticaloa District of Sri Lanka during October to December 2015. Two hundred and eighty three (283) families were recognized as having children less than 5 years of age. A pre-tested structured questionnaire was used to collect the details about the children below five (05) years of age and their living conditions. The growth performance of the children was checked from chart which was given from the Child Health and Development Record (CHDR) card. Finally collected data were analyzed by using statistical package for social science (SPSS, 19 version) Software.

Results and Discussion

According to the current study, the village and its location is actually located in dry zone where the livelihood performances are still in the developing conditions. Because of the situation of the past three decades, the conflicts were dominant than the people's self-improvement and the development of the village. The health conditions of the children are also poor while comparing with other Divisional Secretariat Divisions in

Batticaloa District. Therefore, this study was mainly focused on the nutritional status of the children who were below five years.

Gender distribution of the respondents: Of the 283 interviews deemed valid, 90.3% respondents were female while 9.7% were male. Highest number of women Participation in this survey considered as an advantage, because most of the issues under study are handled by the female gender in this community. Further, the study revealed that, 53.4 % boys and 46.6% girls children are selected for this study.

Family size of the households: The findings revealed that only 0.7% had family size of two (2). In such places household management and decision making was mainly done by the female member as she widowed or separated. On the other hand, most households in the area had family size in between 3-5. And few (5.3%) has the family size of above 6 (Figure-1).

Education level of the Respondents: The household findings revealed that out of 283 respondents, 43 (15.2%), have no education. However, 77.7% of the respondents had been to school between 1-11 years. Special attention should be given to use appropriate tools when conducting awareness or training programs in this area with more than 84% of them have been educated above the primary school level. This implies that there is a large population who can be made aware of good sanitation and hygiene practices through various media and training.

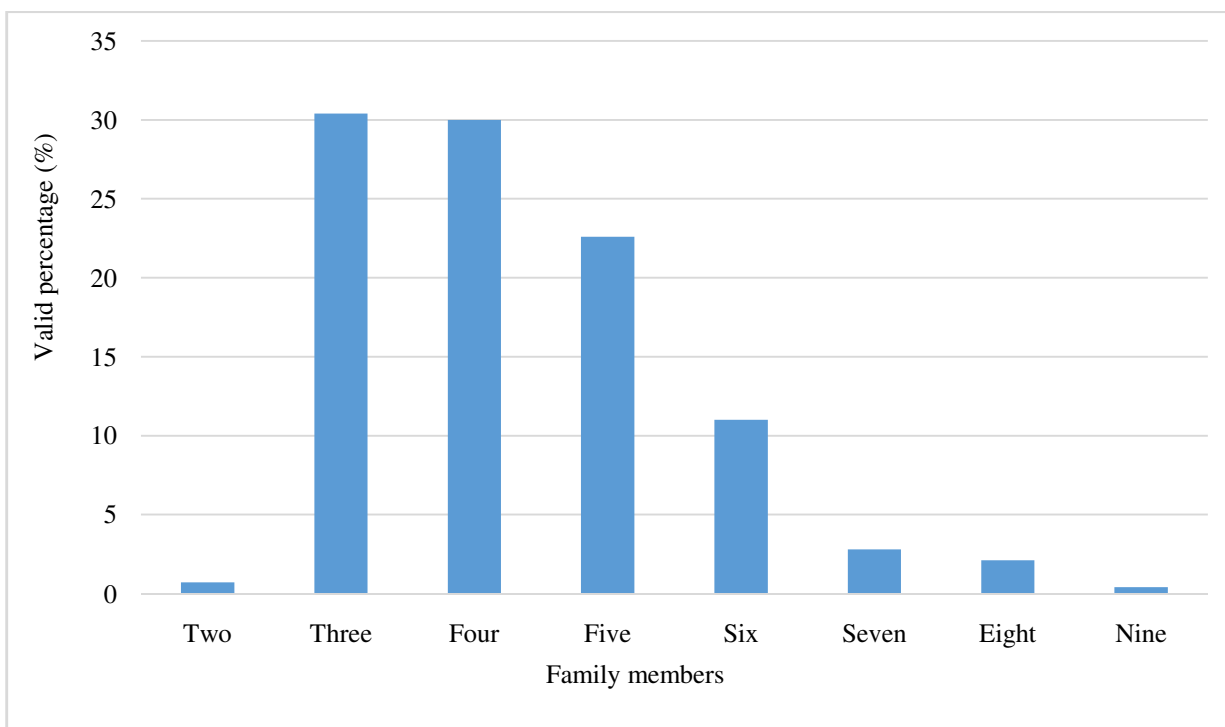


Figure-1
Average family members of the village

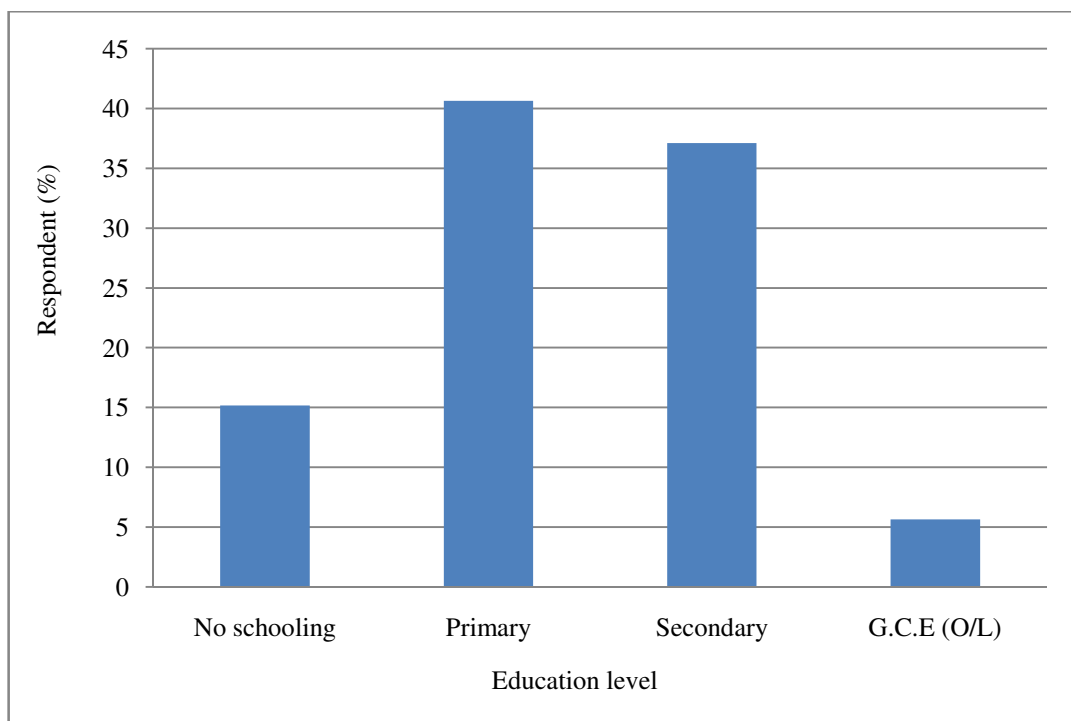


Figure-2
Education level of the respondents

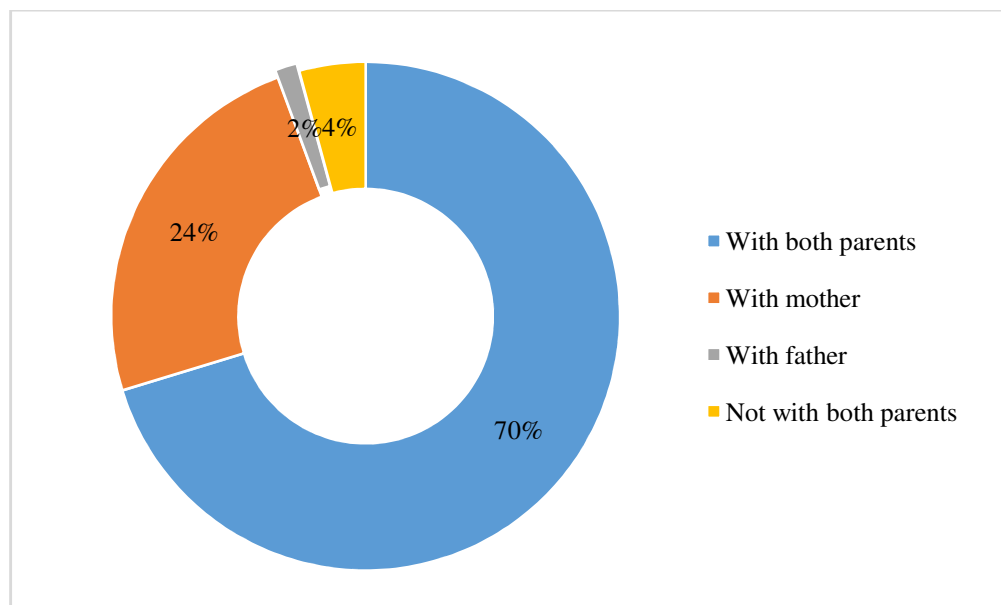


Figure-3
Living status of the child

Living status of the children: Nearly 70% of the children are living with their parents whereas 4.2% of the children are living with their grandparent (Figure-3). And 25.4% of the children are living with father or with mother. It was also noticed through direct observation that, the children living with grand parent or with father needs more care in regards to sanitation and hygiene conditions. Survey further extended to find about the looking

after of child during the day time among 283 households in the study area. It was found that, most of the children were with the mother (87.3%) followed by grandmother (9.5%), grandfather (2.8%). Only 0.4 percent of the children were with the father. Reasons for the less number of children with the care of father was due to the fathers are going for job to outside the village and for other income earning purposes.

Birth Weight of the child: Birth weight of the child was cross checked with the support of growth chart. Results revealed that the birth weight ranged in between 1.4 and 3.8 kg at this study area (Figure-4).

With those below aspects, birth weight was ranged into the major category of low birth weight and normal birth weight with its gender basis. About 14.6% and 85.4% of the male children were with low birth weight and average birth weight while 18.2% and 81.8% of the females fall as low birth weight and average birth weight respectively (Figure-5).

Even though the lack of access of health and nutritional services in that area, only a very fewer percent (1.8%) of the children were born with physical (1.1%) and mental disabilities (0.4%). And also the colostrum feeding is the essential requirement to the new born baby for such period in a continuous way which enhances the strength of the baby. At this present study, breast fed conditions were evaluated from the mother where 97.5% of the mothers were keen on breast feeding and the rest of the total showed such failures in that Vavunathivu DS area, Batticaloa. Additionally, the reasons for the failure of feeding were lack of milk secretion (0.7%), special medical conditions of the child (1.4%) etc.

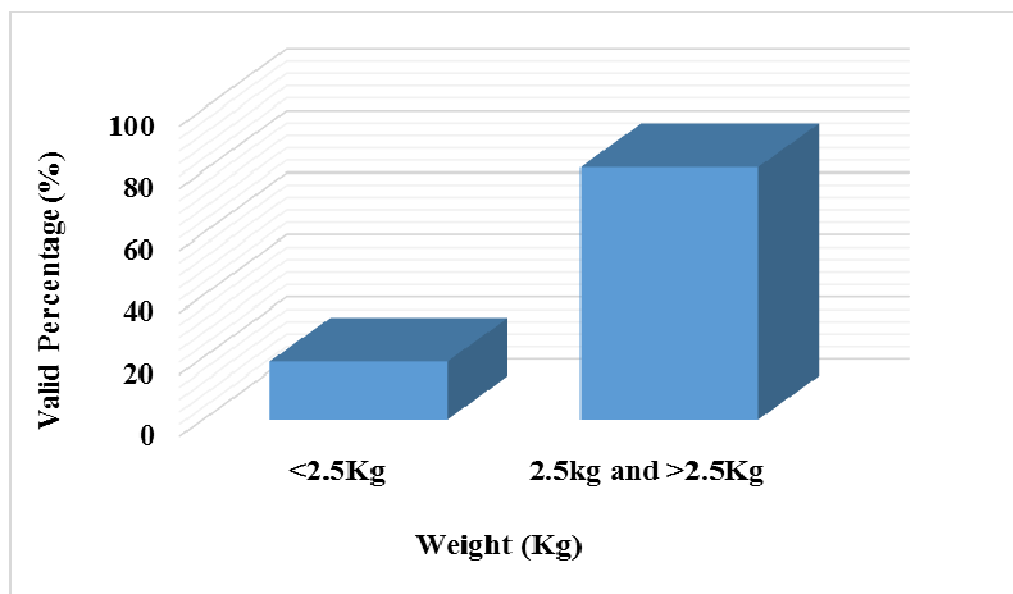


Figure-4
Range of the Birth Weight of child

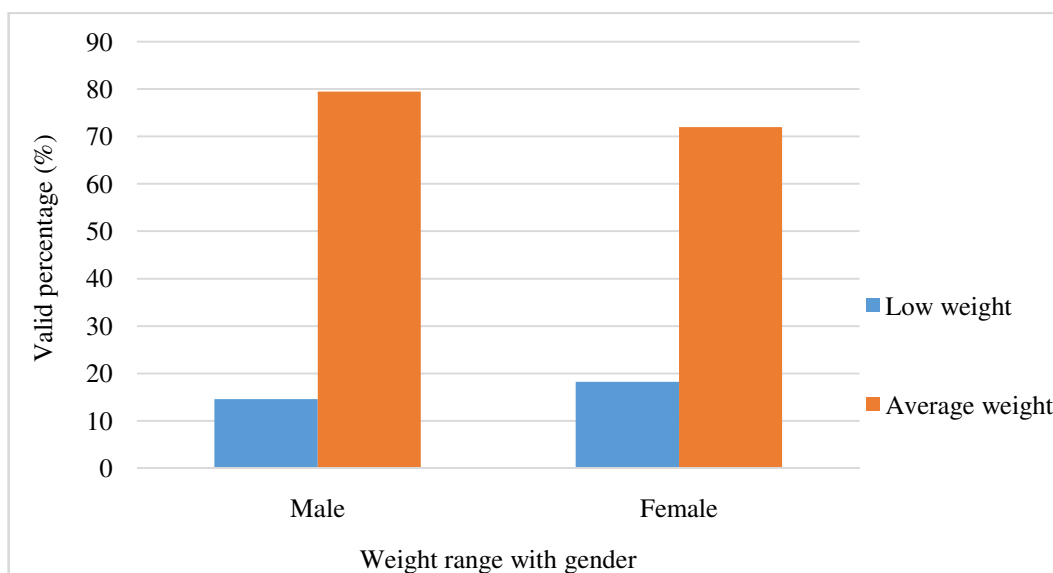


Figure-5
Weight range with the birth weight of children

Clinical conditions of the child: The respondents were checked with the Health Clinic card which was provided by the Family Health Department (MOH office). Results revealed that the 98.6% of the respondents have received the growth chart for their kids while 1.1% of them did not keep it safely. And also, 98.6% of the population kept the chart in the updated mode and visited the clinical places monthly basis. Among those, 91.9% of the mothers had the capability to explain the remarks given at the chart regarding with the child's growth rate. As shown in Figure-6, around 47.7% of the children were identified with the > -1 SD underweight (Green) which was the peak value obtained during the study period.

Further, the growth rate of the child during the past six month period was checked with the support of their individual growth chart. The growth rate of the child was found as steady growth, improved growth, decreased growth and unsure with the value

of 9.9%, 46.6%, 31.8% and 9.5%, respectively. And also, 95.8% of the mothers take their child to the clinical sites in every month and around 4.2% of the respondents faced difficulties to visit those sites because of the long distance (1.1%), lack of transport facilities (0.4%) and lack of awareness (3.2%).

Moreover, personal assistance related with the health and nutritional issues were mainly consulted with the doctors (71%) and midwife (26.9%). In some cases, environmental issues were discussed with the PHI who is responsible for the right identification of water accumulation and mosquito breeding sites. Children who are below five years old were highly infected with the fever, diarrhoea, respiratory infection and worms which were predominant in the study area. Around 86.6% and 13.1% of the children were affected by fever and diarrhoea, respectively. And the infected time also 1-3 times per three months interval (72.1%).

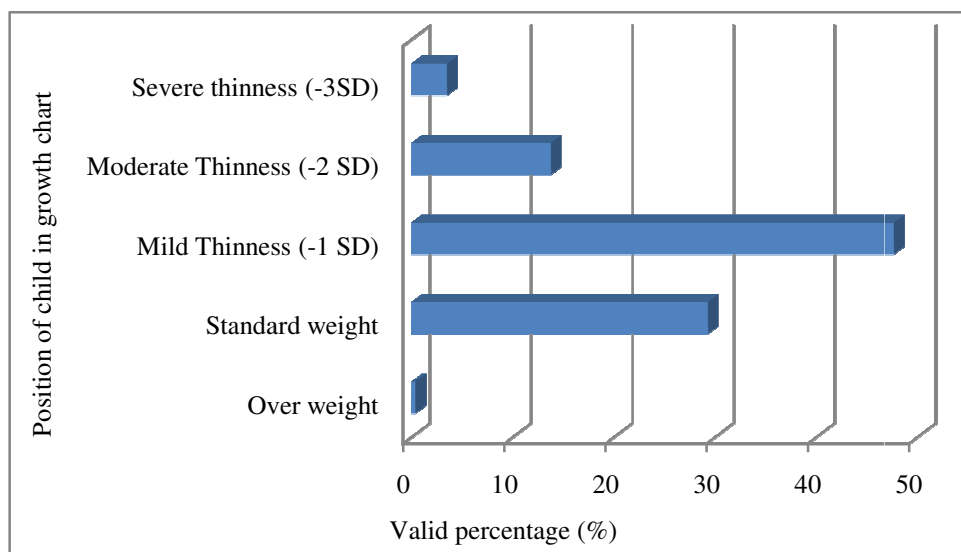


Figure-6
Position of child in growth chart

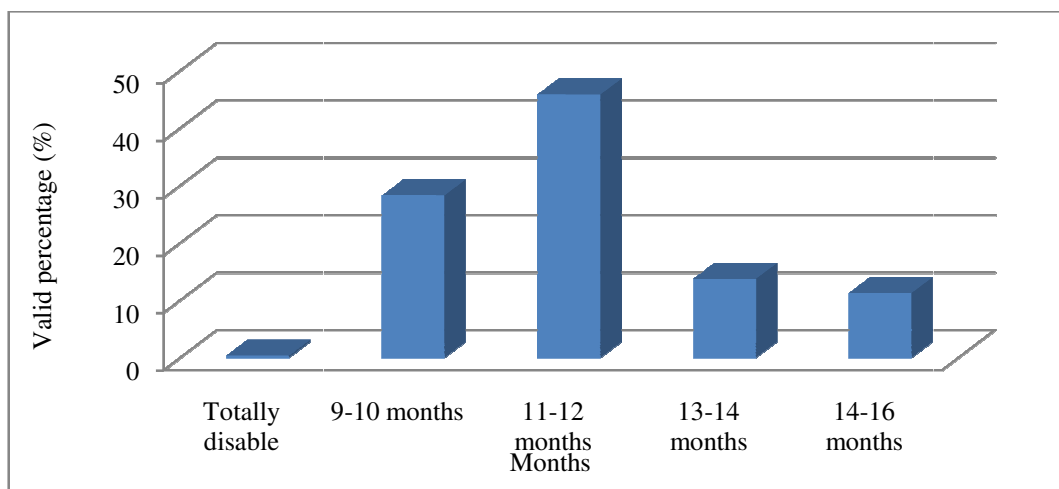


Figure-7
Age of the child for started walking

Developmental status of the children: Time taken for start smiling by looking their mother, start walking (Figure-7) and start talking were interviewed from the parents. Around 97.5% of the mother mentioned that their child started smiling before the end of 6 months from the child birth. However, the time period needed for walking and speaking was differed as 9 to 16 months and 6 to 24 months respectively.

Further, majority of the children (55.8%) started to speak at their age of 11-14 months while other children were performed this activity after 16 months of time from their birth (Figure-8). And also, 85.7% of the children were fed themselves while they are above three years old.

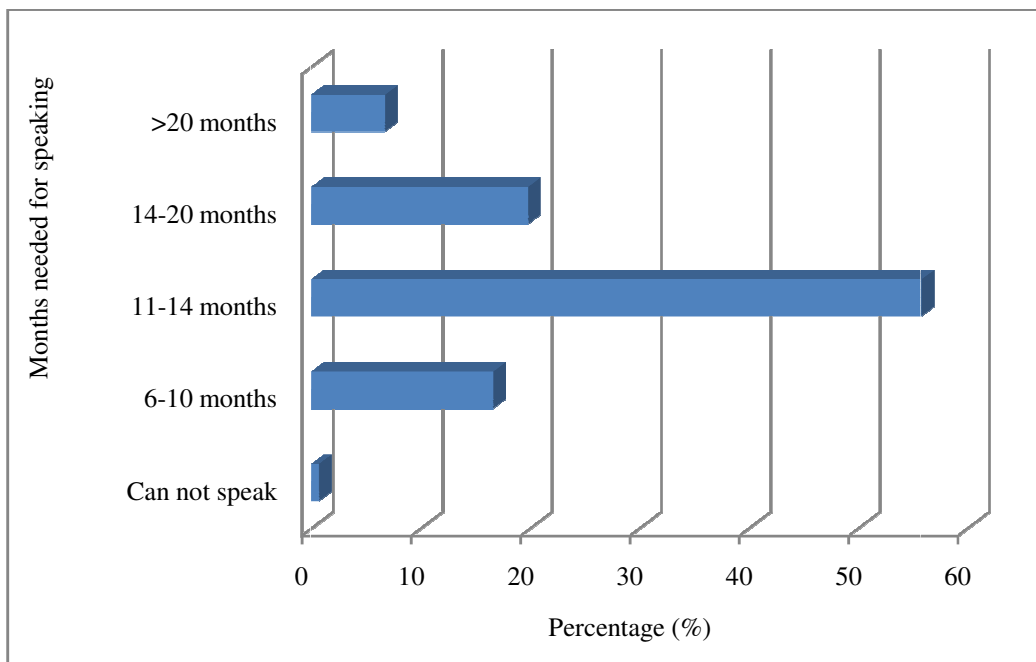


Figure-8
Age of the child for started talking

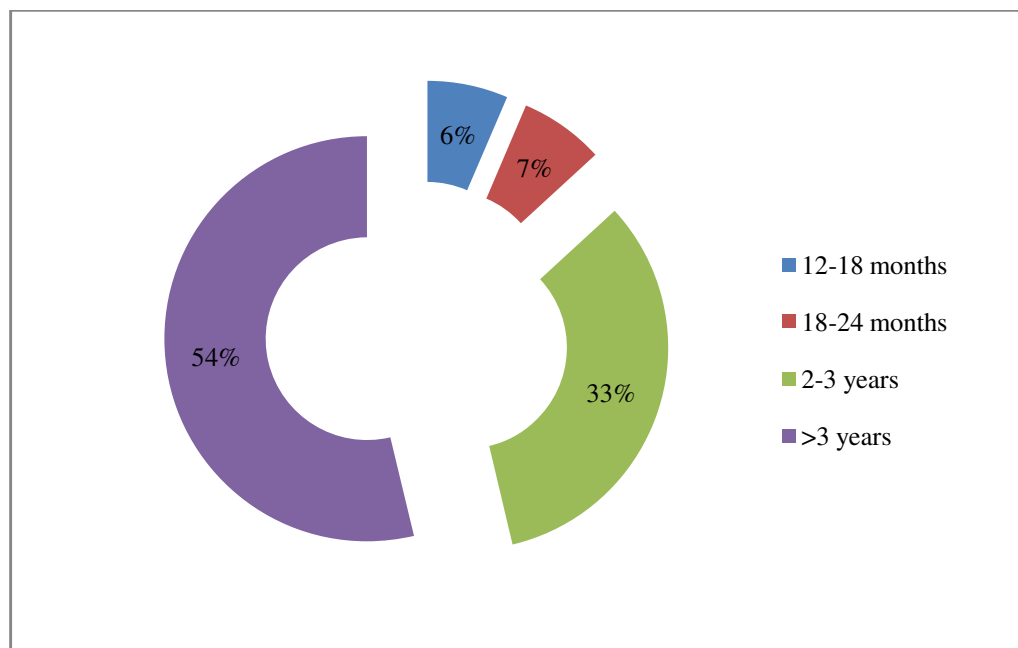


Figure-9
Children started to eat independently

About 54% of the parents reported that, their children started to eat independently after 3 years of age. No one said that, their child started to eat independently before one year of their age (Figure-9). At present, nearly 59.4% of the children are eating themselves, 20.1% of the parents or caregiver feeding their child and 17.0% of the children are eating with partial help from the parent.

Conclusion

Even though the majority of the children were born with the normal weight considerable number of children born with low birth weight therefore, there is a need for specific public health strategies to address this issue. As many of the mothers fed their baby with breast milk nutritional disorders in early stage were low in that area. However, due to the poor cleanliness of the surrounding environment cause diseases to the children. Discussions with the parents regarding the clean environment and their child development should be conducted regularly in the study area by MOH staff for the better understanding of the children's health concerns and constraints. As they are facing many problems to go to the child clinic, to have a special health clinic atleast twice in a month at village level with the help of the doctors from teaching hospital will improve the child and their development status.

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