

Feeding Practices and Nutritional Status of Children 0 - 23 Months Born to Adolescents in Maseno Division, Kisumu County, Kenya

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Abstract

First-time adolescent mothers deal with challenges that place extra demands not only on their stage of adolescent development but also on their ability to adapt to their new role as a parent. Adolescent and childhood is a period of rapid growth and development. About 16 million (11%) of all births worldwide are to girls aged 15 to 19 years old. Infant and young child feeding practices have substantial consequences for the growth, development and survival of infants and children. Infants should be exclusively breastfed for the first six months of life to achieve optimal growth, development and health. Thereafter, to meet their evolving nutritional needs, infants should receive safe and nutritionally adequate complementary foods while breastfeeding continues for up to two years of age or beyond. Adolescent mothers face unique challenges and influences when making a choice on how to feed their infants and most of them deviate from the recommended infant and young child feeding practices thus leading to a large number of infant deaths of children born to them. This was a descriptive study whose purpose was to establish the feeding practices and nutritional status of children 0 - 23 months born to adolescents in Maseno Division, Kisumu County, Kenya. A sample size of 120 children was used. Purposive and accidental sampling techniques were applied. Quantitative data was collected using interview-schedule and observation checklist. Quantitative data was analysed manually with help of scientific calculator. The study findings might be beneficial to children 0-23 months born to adolescents. There are many studies regarding teenage pregnancy, unsafe abortions, and family planning among teenagers, but very little is known about what happens after pregnancy, i.e. the experience of teenage motherhood. Results have been presented in form of text, tables and figures. The prevalence of malnutrition was found to be: 28.3% stunting rate, 23.3% underweight and 17.5% wasting which was higher than WHO rates. Levels of education, lack of financial income to support child upbringing and inappropriate infant and young feeding practices affected the nutritional status of their children. The study recommends that; adolescent girls who drop out of school due to pregnancies should be enrolled back to school to improve their educational standards and to enhance their chances of securing better paying jobs, nutritional education and counselling of mothers on infant and young feeding practices as recommended by WHO and nutritional screening to be conducted to identify children who are malnourished and put them on malnutrition management as recommended.

Keywords: Feeding Practices; Nutritional Status; Adolescents; Malnutrition; Pregnancy

Introduction

Adolescent mothers are faced with the dual challenge of progressing through the stages of adolescence and at the same time adapting to the maternal role. Their ability to adjust to the role of being a new mother is often influenced by characteristics associated with their

particular stage of adolescence. For example, a young mother in the early stage of adolescence still needs to be “mothered” by her own mother or a person in her life who acts as her mother [1]. Adolescent parents and their children represent populations at increased risk for medical, psychological developmental and social problems [2]. Adolescent mothers commonly live in poverty; have parents who have low education level and growing up in single-parent families [3].

During adolescent young people go through many changes as they move from childhood into physical maturity [4] and also adolescence represents one of critical transitions in the life span characterised by tremendous growth [5]. Self-perceptions of parenting are important because how mothers perceive themselves and whom they can depend on may influence the type of parent they become [1]. There has been a marked, although uneven, decrease in the birth rates among adolescent girls since 1990, but some 11% of all births worldwide are still to girls aged 15 to 19 years old. The vast majority of these births (95%) occur in low- and middle-income countries [6]. The 2014 World Health Statistics indicate that the average global birth rate among 15 to 19 year olds is 49 per 1000 girls with country rates ranging from 1 to 299 births per 1000 girls, with the highest rates in sub-Saharan Africa [6].

Kenya Population Situation Analysis report showed Kenya to be among the countries with a large number of adolescent pregnancies globally. Kenya contributes to this percentage by having 103 in every 1000 pregnancies being attributed to girls between 15 and 19 years [7]. Optimal breastfeeding and complementary feeding practice are important contributors to child survival and nutritional status during the first two critical years of life [8]. Worldwide, more than 9 million children under 5 years of age die each year. Malnutrition underlines a majority of these under 5 deaths, 70% of which occur in the first year of life. Infant and young feeding practices impact the nutritional status and ultimately child survival under 2 years of age [9]. Globally, 26% of children under the age of five years are stunted, 16% underweight and 8% wasted while in Sub-Saharan Africa the prevalence of the three forms of malnutrition is stunting 40% underweight 21% and wasting is at 9% [10], in 2011 under nutrition was estimated to be implicated at 45% of all deaths among children under five, some 3.1 million children worldwide [11].

The Kenya National Bureau of Statistics (KNBS) and ICF Macro Survey [12] reported that; 35% of children below the age of five years in Kenya are stunted, 7% wasted and 16% underweight based on WHO 2006 reference growth standards. According to Kenya Demographic Health Survey (KDHS), comparison of the 2008-09 KDHS nutrition data with that from 2014 indicates an overall improvement in nutritional status of children in Kenya. Stunting has decreased from 35 percent to 26 percent. Wasting has also declined from 7 percent to 4 percent in 2014, and the proportion of underweight children declined from 16 percent to 11 percent (KNBS) and ICF Macro Survey [13]. The first two years of life are a critical window for ensuring optimal child growth and development [14]. Nutritional deficiencies during this period can lead to impaired cognitive development, compromised educational achievement and low economic productivity [15]. Improving infant and young child feeding (IYCF) practices in children 0-23 months of age is therefore critical to improved nutrition, health and development [16].

Approximately 16 million teenage girls become mothers every year [17] with the highest concentration is in sub-Saharan Africa, where 20% - 40% of teenagers are mothers or currently pregnant [18]. A survey done by Kenya medical Research Institute showed that about 30% of teenage girls on most urban centres get pregnant and 41% or 4 out of ten girls between the ages of 15 - 24 in Kisumu were pregnant at the time of the survey (Kenya Medical Research Institute [19]. Adolescent mothers face numerous challenges that put demands not only on the young mother's stage of adolescent development but also on their ability to adapt to the obligations of parenthood [20]. Adolescent pregnancies are more likely in poor, uneducated and rural communities [21] Babies born to adolescent mothers face a substantially high risk of dying than those born to women aged 20 to 24 [21] are also at risk for neglect and abuse because their young mothers are uncertain about their roles and may be frustrated by the constant demands of caretaking [22]. According to a survey done by Kenya National Bureau of Statistics (KNBS) and ICF Macro, in Kenya 35 percent of children under five years are stunted, 16 percent are underweight, and 7 percent are wasted [12].

Materials and Methods

The research was a cross sectional descriptive study and the study was conducted in Maseno Division of Kisumu County, Kenya. The study population was children aged 0 - 23 months and the sample size was 120. Purposive sampling technique was used, in which children aged 0 - 23 months accompanied by their mothers attending Chulaimbo District Hospital were identified and accidental sampling was used to interview those who happened to be in the hospital. An interview-schedule and an observation checklist were used to collect data. Data was analyzed using descriptive statistics.

Results and Discussion

A total of 120 children were included in the study and the mean age of the children was 8.5 months. Children in the age category of 0 - 5 months were 42 (35%), 6 - 11 months 49 (40.8%), 12 - 17 months 18 (15%) while those in the age category of 18 - 23 months were 11 (9.2%) as shown in table 1.

Characteristics	No (%)
Child's Age in Months	
0 - 5	42 (35.0%)
6 - 11	49 (40.8%)
12 - 17	18 (15.0%)
18 - 23	11 (9.2%)
Total	120 (100%)

Table 1: Distribution of children by age.

The results of the study showed that 20 (17.0%) of the children born to adolescents were born with low birth weight, 97 (81.0%) had normal birth weight while 2 (2.0%) were overweight as shown in figure 1.

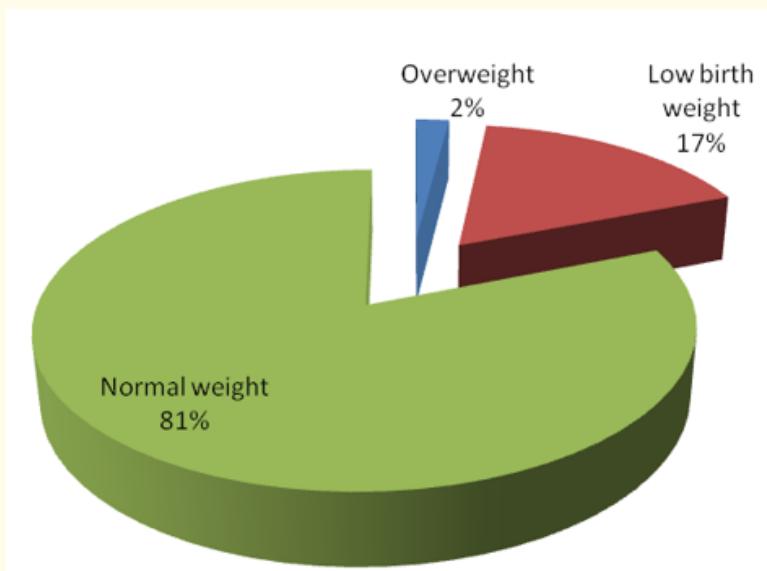


Figure 1: Distribution of children by birth weight.

A total of 120 adolescent mothers were interviewed during the study. The mean age was 17.7 years with youngest mother being 13 years and the oldest was 19 years. Majority 116 (96.7%) of the adolescent mothers were aged between 15 - 19 years with 4 (3.3%) aged 10 - 14 years. About two thirds 73 (60.8%) of the mothers were single mothers and 47 (39.2%) were married. Majority (75.0%) of the adolescent mothers were unemployed, 22 (18.3%) were running small scale businesses, 5% were engaged in casual labour and 2 (1.7%) was comprised of domestic help workers. About one-third 43 (35.8%) of the adolescent mothers had not completed primary education, 42 (35.0%) had completed primary education, 26 (21.7%) had not completed secondary education, 9 (6.7%) had completed secondary education and 1 (0.8%) had no formal education as shown in table 2.

Characteristics	No (%)
Age	
10 - 14	4 (3.3%)
15 - 19	116 (96.7%)
Total	120 (100%)
Marital status	
Single	73 (60.8%)
Married	47 (39.2%)
Total	120 (100%)
Education	
Secondary complete	9 (6.7%)
Secondary incomplete	26 (21.7%)
Primary complete	42 (35.0%)
Primary incomplete	43 (35.8%)
Informal	1 (0.8%)
Total	120 (100%)
Occupation	
Casual labour	6 (5.0%)
Business	22 (18.3%)
Domestic help work	2 (1.7%)
Unemployed	90 (75.0%)
Total	120 (100%)

Table 2: Demographic characteristics of the adolescent mothers.

Infant and young child feeding practices

All (100%) adolescent mothers included in the study breastfed their children. Slightly above one-third 46 (38.3%) of children born to adolescent mothers were initiated within 1 hour to the breast, 66 (55%) of them were initiated within 2 hours, while 6 (5%) were initiated within less than 24 hours and 2 (1.7%) were initiated 24 hours after birth as shown in figure 2.

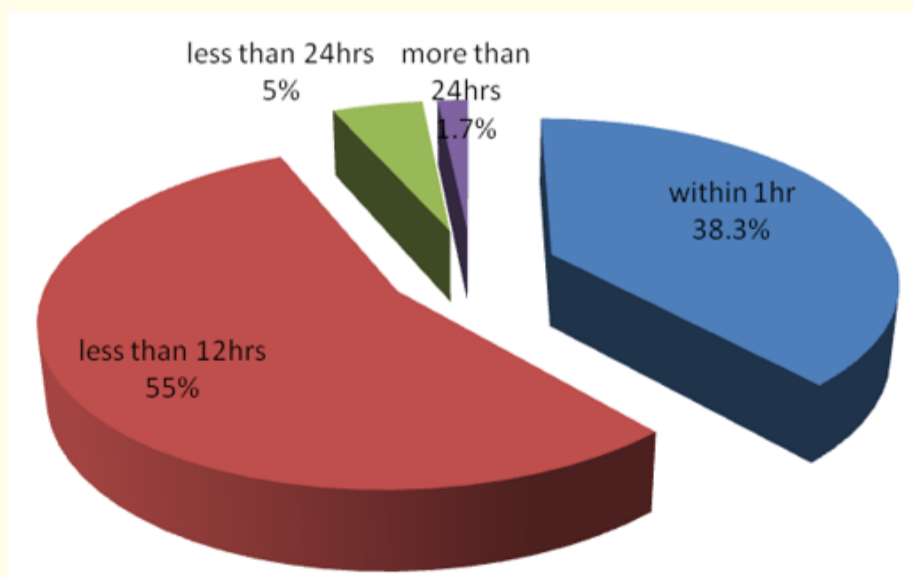


Figure 2: Distribution of children born to adolescent mothers by time of initiation to breastfeeding.

Nearly half 55 (45.8%) of the adolescent mothers gave their babies only breast milk within the first three days after birth with 65 (54.2%) giving breast milk plus other fluids. Slightly more than half (58.5%) of adolescent mothers gave sugar/glucose water within the first three days, 43.1% salty water, 20% plain water, 9.2% porridge, 4.6% grape water and 1.5% of the children were given intravenous fluids (IVFs) as shown in figure 3.

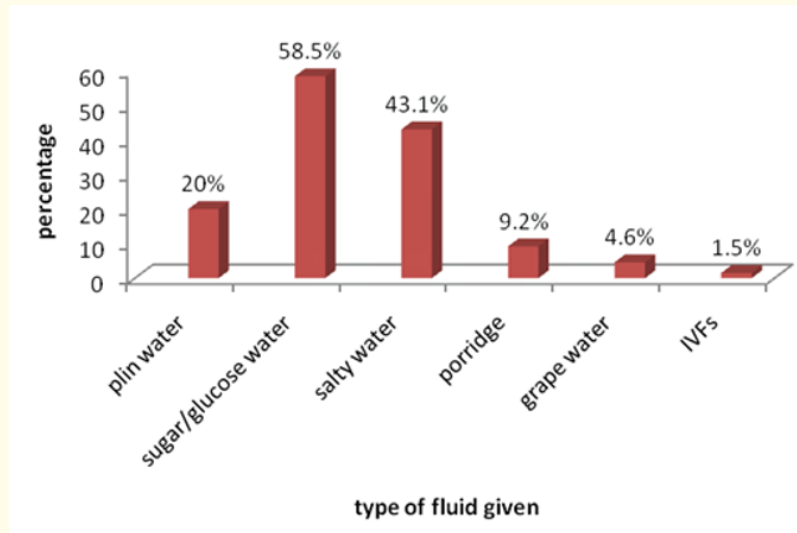


Figure 3: Distribution of babies born to adolescent mothers by types of fluids given other than breast milk within the first 3 days after birth. *Multiple responses. Percentage exceeded 100.

Slightly above half 36 (55.4%) of the adolescent mothers gave other fluids to their babies because they believed that they had no enough milk, 29 (44.6%) said child was crying, 22 (33.8%) said it was due to cultural beliefs, 4 (6.2%) said mother was tired, 2 (3.2%) child refused to breastfeed and 1 (1.5%) said child was sick as shown in table 3.

Characteristics	No (%)
Child was crying	29 (44.6%)
Had no enough breast milk	36 (55.4%)
Child refused to breast feed	2 (3.2%)
Cultural beliefs	22 (33.8%)
Child was sick	1 (1.5%)
Mother was tired	4 (6.2%)

Table 3: Distribution of babies born to adolescent mothers by reason for giving other fluids other than breast milk. *Multiple responses. Percentage exceeded 100.

Majority 115 (95.8%) of the children were still breastfeeding during the time of the study and 5 (4.2%) had stopped breastfeeding. Less than half 35 (40.2%) of the adolescent mothers introduced complementary food to their children at the age of six months, 52 (59.8%) introduce complementary food before their children reached six months. On 24-hour recall all the children aged 6 - 8 months (100%) met the minimum meal frequency of 2 times a day, 47 (83.9%) of children aged 9 - 23 months met recommended meal frequency of 3 or more meals per day and 9 (16.1%) of the children aged 9 - 23 months did not meet the minimum meal frequency.

All (100%) the children consumed foods made from grains and starches. Animal proteins were consumed by 47.4%, vegetables 53.8%, fruits 17.9%, oils and fats 69.2% and finally legumes and nuts consumption was low at only 5.1% as shown in table 4.

Characteristics	No (%)
Animal protein	37 (61.5%)
Legumes and nuts	4 (5.1%)
Grains and starches	78 (100.0%)
Vegetables	42 (53.8%)
Fruits	14 (17.2%)
Oils and fat	54 (69.2%)

Table 4: Distribution of children by dietary diversity of complementary foods.

*: Multiple responses. Percentage exceeded 100.

Variables used to identify nutritional status of the children were height for age z-scores (stunting), weight for height (wasting) and weight for age (underweight). In this study for the height for age Z-score stunting rate was 28.3% and 71.7% of the children had normal height for age Z-score. 23.3% children were underweight, 3.4% were overweight, while 73.3% had normal weight for age. 17.5% of the children were wasted and 82.5% of the children had normal weight for height.

Z-score	Nutritional status	Frequency	Percentage (%)
Height for age z-score	Stunting	34	28.3
	Normal	86	71.7
Weight for age z-score	Underweight	28	23.3
	Normal	88	73.3
	Overweight	4	3.4
Weight for height z-score	Wasting	21	17.5
	Normal	99	82.5

Table 5: Distribution of children 0 - 23 months born to adolescent mothers by nutritional status.

Conclusion

Most of the adolescent mothers in Maseno Division had low educational levels, while two thirds of the mothers were single mothers and majority were unemployed. The nutritional status of children aged 0 - 23 months born to adolescent is affected by low levels of education and lack of financial income to support upbringing of their children. A substantial section of children born to adolescent mothers in Maseno Division were at risk of malnutrition due to infant and young feeding practices i.e. introduction of complementary food before the age of six months and poor diversification of complementary foods. The prevalence of malnutrition in children born to adolescent mothers in Maseno Division was high.

Recommendation

The Ministry of Education-Kisumu County in conjunction with other stake holder should find way of enrolling adolescent girls who drop out of school due to pregnancies in Maseno Division to improve their educational standards and to enhance their chances of securing better paying jobs. The Ministry of Health-Kisumu County Government through its agencies on the ground in Maseno Division should intensify education and counselling of mothers on infant and young feeding practices as recommended by WHO i.e. timely initiation of

breastfeeding within 1 hour after birth, exclusive breastfeeding for the first six months of life and appropriate complementary feeding. In the antenatal, postnatal clinics and youth friendly clinics that exist in the area, the Ministry of Health-Kisumu County Government through its agencies on the ground in Maseno Division should conduct nutritional screening to identify children who are malnourished and put them on malnutrition management as recommended. There is need to conduct further studies on nutritional status of children born to all adolescent mothers in Maseno Division to track infant and young child feeding practices throughout the period from birth to 23 months of age.

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