

Morbidity, Health and Nutrition Status of Infants Born to Young Mothers in Transmara West Narok County, Kenya.

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Abstract

The purpose of this study was to examine Morbidity, health and nutrition status of infants born to young mothers in Transmara west Narok County, Kenya. Five health facilities were purposively selected in Transmara West Sub County, Narok County by use of analytical cross-sectional study design. A sample size of 246 infants and 246 adolescent mothers were recruited from the health facilities. Quantitative data was analysed using SPSS for windows version 24.0 and ENA for SMART survey 2011. The relationship between nutritional status and other variables was established by use of chi-square test at a significance level of less than 0.05. Most of the mothers were between 16 to 17 years with the youngest mother being 14 years old. Malnutrition levels were 17.1 per cent 22.0% and 22.0 per cent for wasting, stunting and underweight respectively. Meal frequency, exclusive breastfeeding and infant illness two weeks before the study were significant ($p < 0.05$) factors associated with malnutrition. The study concluded that the most prevalent illnesses were malaria and common cold. Educational level of the mother did not influence infants' the nutritional status. The study recommended that Infant feeding practices showed a positive significant relationship with nutritional status (underweight); that is exclusive breastfeeding and meal frequency. Infants who attained the minimum meal frequency and those who achieved the minimum acceptable diet were less likely to be underweight.

Key Terms: Morbidity, infants, young mothers, nutrition status.

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1.0 INTRODUCTION

The nutrition status of young infants relies on the interactions between foods consumed and their health status (WHO, 2018). On the other hand, there has been an increase in adolescent motherhood among those below 15 years thus risking their lives and that of their infants due to complications of child birth and pregnancy (WHO, 2018). Infants born to adolescents who are considered young mothers are likely to have low birth weight, which can have an effect on their health and development. Globally, approximately 22 per cent of infants below the age of five years were stunted, 5.6 per cent overweight and 7.5 per cent wasted globally while in Africa the prevalence of the three forms of malnutrition is stunting 5.6 per cent overweight 21 per cent and wasting is at 9 per cent (WHO, 2018).

In a study in Bangladesh, new-borns of adolescent mothers were found to have poorer nutritional status as compared to those of their adult counterparts, including lower stunting, wasting and higher underweight prevalence (Nguyen, et al., 2017). Studies have shown that some of the factors that have contributed to malnutrition among infants of young mothers include; low socioeconomic status, inadequate maternal and prenatal nutrition, low education status and early weaning (Da Costa, et al., 2018; Nguyen, et al., 2017).

In order to achieve optimal growth and health, infants should be only be introduced to breast milk without introduction of other foods for a period of six months which will promote optimal protection from morbidity and mortality (Beguy, et al., 2014). In a study at Durham region, only 21 per cent of the adolescent mothers continued to introduce their infants to only breast milk without other foods due to difficulties in latching and low milk supply. In the same study, the adolescent mother seems to introduce solids and liquids more frequently than adult mothers do. In a study by (Godbout, et al., 2016), it documented that poor infant feeding among the adolescent mothers was associated with schooling, low socioeconomic status and poor knowledge of the mother. They are at risk of restricted growth especially those between the ages of 0-11 months (Yu, et al., 2016).

The Kenya national data by KNBS and ICF MACRO (2015), reported that; 26 per cent of children below the age of five years in Kenya are stunted, 4 per cent wasted and 11 per cent underweight based on WHO 2006 reference growth standards. In Narok County, global acute malnutrition prevalence remained poor as compared to that of June 2013 (Narok County SMART Survey Report - February 2018, n.d.). The levels of malnutrition were as follows; underweight and stunting levels were at 18.9 per cent and 27.2 per cent respectively. Stunting levels was classified as medium that is 1 in 4 children in the county are stunted ("Narok County SMART Survey Report - February 2018," n.d.). The current research study determined the dietary practices, health and nutrition status of infants born to adolescent mothers in Transmara West Sub County.

Despite adequate nutrition being a basic human right, new-borns of adolescent mothers have been found to have poorer nutritional status in comparison to adult mothers (Nguyen, et al., 2017). Most adolescent mothers have unique challenges such as no access to any source of income, being immature and lack of family support which in turn affect their health outcomes and that of their children (Godbout, et al., 2016). Early marriage and childbirth continue to increase in low and middle income countries.

There is a rise in adolescent motherhood in Kenya with those with lower education and living in rural areas (26%) having their child below the age of 18 years putting their children at risk of under nutrition (KNBS, &

ICF MACRO, 2015). In Transmara West County, there were high pregnancies that led to a high number of teenage girls dropping out of school which was so far the highest in the County (“NATIONAL ADOLESCENTS AND YOUTH COUNTY,” 2017). Further, a research by Okeyo (2019) in Transmara East established that there is low coverage on the information concerning infant feeding, supplementation and mother’s dietary practices, which can create risks of under nutrition to these young mothers.

Adolescent mothers have increased responsibilities like the return to school, household chores and the general workload at home thus leaving their children to the hands of their parents or grandparents. Under nutrition among their infant’s increases the risk of morbidity and other serious health problems early in life. In addition, evidence has shown that young mothers struggle with different barriers such as the lack of autonomy in decision making and child care, the knowledge on proper infant feeding, embarrassment that is associated with public breastfeeding and the lack of support from the health care team (Jama, et al., 2018). It has also been suggested that this is because of the stigma and perceived lack of support from the family, community and health care team.

Despite the rise in early motherhood, data on dietary practices, health and nutritional needs of their infants is limited. If no intervention is provided to these young mothers, the outcome may be associated with intergenerational malnutrition and poverty (Wanjohi, et al., 2017). These young mothers are vulnerable, immature and not mentally prepared for childcare. They have been found to be depressed and to have low self-esteem because of child marriage (Marangu, et al., 2017). In addition, the return to school of the teenage mother leaves their infants vulnerable to under nutrition as the caretakers lack the proper motherly care and support. Narok County has high level of teenage pregnancies with poor malnutrition levels (“Narok County SMART Survey Report - February 2018,” n.d.).

Limited studies in developing countries have focused on the health of teenage mothers especially on dietary practices, which is rarely reported by the mothers hence to address this gap, this study aimed at determining the morbidity, health and nutrition status of infants born to young mothers in Transmara West Sub County.

2.0 LITERATURE REVIEW

Nutritional Status of Infants Born to Adolescent Mothers

Globally stunting has been found to be higher in South East Region and WHO African region with 22 per cent of under-fives being too short for their age in 2017. Malnutrition has been associated with childhood morbidity and mortality future learning capabilities and non-communicable diseases. According to World Health Organization (2018), the prevalence was approximately 51 million in 2017 with wasting being 7.5 per cent and 5.6 per cent overweight.

In a study in Ghana among adolescent mothers, children under 5 years were found to have increased risk of stunting, wasting underweight in comparison to similar children of adult mothers (Wemakor, et al., 2018). Children of the adolescent have been found to have low weight at birth due to environmental factors such as poor socio-economic factors and the mother’s level of education.

According to (Raj, et al., 2010), low maternal age and poor socioeconomic status among young mothers contributed to high infant mortality and malnutrition among their children. Their children were found to be malnourished due to the competitive nutrients between them and their infant. In a study by (Finlay, et al., 2017), it was found that young maternal age, short birth intervals contributed highly to poor nutritional status and infant mortality and morbidity especially to the first born infants.

In Kenya, it has been found that stunting is at 26 per cent and those children that are severely stunted to be 8 per cent (KNBS, & ICF MACRO, 2015). Children residing in the rural areas had higher levels of stunting at 29 per cent than those in the urban areas at 20 per cent. Additionally, the children of young mothers who are educated have been found to be less stunted.

The level of malnutrition in the County of Narok has been as follows; the level of stunting was found to be at 27.2 per cent and underweight was 18.9 per cent being highest among boys than girls due to socio-cultural factors. The caregivers were found to have good nutritional status and were healthy. Severe stunting for caregivers was 0.4 per cent and moderate malnutrition was 5.6 per cent (County, 2013).

According to (Tankoi, et al., 2016), low socioeconomic status, being a house wife, number of children in household, inadequate access to water, sanitation and hygiene and poor infant feeding practices led to a high level of under nutrition in Transmara East Sub County. In the same study, the levels of under nutrition among children were 22 per cent 31 per cent and 8 per cent for underweight, stunting and wasting respectively. However, this information is for adult mothers only and their children, the study of the children of young mothers has been scanty despite the fact that the County has levels of teenage pregnancies. Therefore, there is need for further research on the nutritional status of their infants in the study area.

Infant Morbidity Status and Adolescent Mother Health Seeking Behaviour

The children aged two years and below are prone to infections and hence the need to prevent this to enhance proper growth and development. According to WHO (2018), acute respiratory infections, diarrhoea and malaria were the leading causes of death in 2016 among children under five years of age. The high morbidity among children under the age of five years was mainly as result of under nutrition and severe morbidity such as pneumonia, diarrhoea, malaria, HIV and AIDS and measles (UNICEF, 2013). Acute wasting and stunting have been associated with common infectious diseases in early childhood such as measles, diarrhoea, pneumonia, meningitis, and malaria in children. In a community based survey in low-income countries, stunting increased each day with increase in diarrhoea among children aged 24 months (Black, et al., 2013).

Diarrheal Disease

Globally, it is estimated by the World Health Organization that 50 per cent of all cases of under nutrition have been attributed to inadequate sanitation facilities that are safe thus contributing to diarrhoea that has killed approximately 525,000 children under the age of five years each year. The same survey by WHO, established that infants aged 6-11 months have the highest incidence because they are in the transition from breast milk to solid foods (WHO, 2018).

In the Kenya Demographic Health Survey (2014), diarrhoea accounted for 15 per cent of children under age five and affected 27 per cent of those children aged 6-11 months two weeks before the survey. Among those who seek treatment, (58%) of the children were taken to health facility while 11 per cent received no treatment

(KDHS 2014). According to the Narok County Health report (2018), the children with diarrhoea were (12.6%) and the caregivers who sought treatment in the public clinic was (50.5%) and (43.6%) in the private clinic respectively.

Acute Respiratory Infections

Globally, pneumonia causes 16 per cent of all deaths of children below the age of five years and in 2015 killing 920 136 children (WHO 2018). According to (KDHS, 2014), children under five with signs of acute respiratory infections (ARI) was 9 per cent in the two weeks before the survey. In Narok County Health report (2018), acute respiratory infections were at 34.6 per cent and those that sought treatment the public clinic (50.5%) or private clinic (43.6%).

Malaria

Globally, approximately 216 million malaria cases was reported in 2016 in relation to 237 million cases in 2010, and 210 million cases in 2013 (WHO, 2018). According to the Kenya Demographic Health Survey (2014), fever was reported in approximately 26 per cent of children under age five in the two weeks before the survey. Fever was not common among those children aged under 6 months (17 percent) but was common among children age 6-23 months (30-31 percent). In Narok County, 22.6 per cent of the children in the sampled households had fever and had been sick two weeks before the survey.

Maternal Health Seeking Behaviour

In a study by Marangu (2017), it was established that most adolescents do not regularly go to health centres for postnatal care due to the high cost associated with accessing the hospitals. Adolescent mothers need support after delivery from the healthcare providers and from their families. Healthcare workers have been found to influence the knowledge on the mothers on the proper infant feeding. In a qualitative descriptive research by (Nesbitt, et al., 2012), adolescent mothers expressed that health care providers enhanced their confidence in breastfeeding through the hands on support that they gave them. A study by Kimani-Murage (2017) found out that women deliver at substandard health facilities where they do not receive counselling from health providers on infant feeding. In Hoima Uganda, adolescent mothers who stayed longer in the hospitals learnt how to take care of their new-borns (Kabwijamu, et al., 2016).

In a study by Jama (2018), teen mothers in Kwazulu Natal became aware of the importance of exclusive breastfeeding because of the counselling they received from the ANC. In the same study, teenage mothers who were residing with other family members, hence were unable to make decisions on their own, and were more depended on their parents for advice on infant feeding. Thus being forced to engage in activities that put themselves and their infants at risk (Kimani-murage, et al., 2015). There is a dearth of knowledge on the adolescent mothers infant care practices among those in the rural areas in Kenya.

Association between Nutritional Status, Infant Morbidity and Health

According World Health Organization (2020), infants of young mothers are prone to infections and malnutrition. In a comparison study between adult mothers and adolescent mothers, the children of adolescent mothers were found to be undernourished as a result of inadequate foods, infections and improper child care practices (Wemakor, et al., 2018). Additionally, this young mothers are not in a position to guarantee sufficient dietary practices and have been found to have low levels of breastfeeding thus contributing to wasting and stunting

(Fekadu, et al., 2015). Limited data is available on the association between morbidity of infants and nutrition status among infants of adolescent mothers.

Water, Sanitation and Hygiene among Adolescent Mothers

According to World Health Organization (2018), an estimated 870,000 deaths in 2016 have been linked to the lack of access to safe drinking water, safe sanitation and lack of hygiene. According to UNICEF (2013), in order to have healthy environments and reduce the prevalence of infectious diseases, it is vital to improve water, sanitation and hygiene as well as housing. These is not limited to immunization, improving sanitation by creating environments free of faecal matter, washing hands with soap, access to treated drinking water and use of insecticide-treated mosquito nets to treat malaria, and treatment of pneumonia with antibiotics (UNICEF 2013).

According to KDHS 2014, most households in Kenya (71%) get access to drinking water from clean and sources, while 27 percent use sources that are not improved. Approximately 66 per cent of rural Kenyans usually use latrines, most commonly a pit latrine without concrete or a pit that is open (48 percent) and 17 per cent use a sanitation facilities that is shared of which it is a pit latrine with a concrete (KDHS, 2014). In rural areas in Kenya, the knowledge on the adolescent mother's water, sanitation and hygienic practices is limited.

3.0 RESULTS AND DISCUSSION

Morbidity Patterns among the Infants: Morbidity among infants has been found to affect the intake of food further affecting the absorption of nutrients in children. According to the study, it was found that (28.5%) of the infants were reported to be unwell in the immediate two weeks preceding the day of the study. The main illnesses reported by the mothers were malaria (8.5%) and common cold (8.1%), pneumonia (7.3%) and diarrhoea (4.6%) as shown in the Table 8. The adolescent mothers that were able to sought medical treatment in the hospital was (16.7%), clinic (7.3%), chemist (3.7%) and herbalist (0.8%). Most of them took their infants to the hospital (16.7%) as compared to 7.3 per cent who sought attention from the private hospitals.

Table 1: Morbidity Pattern among Infant 1-12 Months Old and Adolescent Mother Health Seeking Behaviour

Prevalence of morbidity among infants	Frequency	%
Presence of illness		
Sick	70	28.5
Not sick	176	71.5
Nature of illness		
Malaria	21	8.5
Pneumonia	18	7.3
Common cold	20	8.1
Diarrhoea	11	4.6
Medical treatment for the child		

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Clinic	18	7.3
Herbalist	2	.8
Hospital	41	16.7
Chemist	9	3.7
Duration of illness		
2 days	11	4.5
3 days	6	2.4
7 days	24	9.8
14 days	20	8.1
21 days	5	2.0
30 days	2	.8

Maternal Health Seeking Behaviour

Most of the mothers (89.8%) attended the ANC and sought medical help for the sick infants in hospitals (16.7%). Slightly more than a third (78.9%) of them took their children for growth monitoring and those that did not were either engaged in farming activities (1.2%) or cited distance from the facilities (2.4%) as the reason.

Table 2: Health Seeking Behaviour among the Mother

Variable		Frequency	%
Attendance of ANC			
	Yes	221	89.8
	No	21	8.5
Medical treatment for the child			
	Clinic	18	7.3
	Herbalist	2	.8
	Hospital	41	16.7
	Chemist	9	3.7
Taking of your child for growth monitoring			
	Yes	194	78.9
	No	52	21.1
Reason for not taking their child for growth monitoring			
	Distance from the facility	6	2.4
	Farming activities	3	1.2
	No means of transport	7	2.8

	The child was left under the caregiver and the mother was in school	4	1.6
	Financially unstable	9	3.7

Infant Nutritional Status

Infant nutritional status was measured using the indicators of weight-for-height, height-for-age and weight-for-age. Infants who were below -2SD were considered undernourished and those with less than -3 SD severely wasted. According to the findings in this study, wasting was 17.1 per cent stunting was 22.0 per cent and underweight was 22.0 per cent. Additionally, there was no bilaterally pitting oedema cases were found among the assessed infants. As compared to girls, boys had a higher prevalence of malnutrition than girls.

Acute Malnutrition (Wasting)

Acute malnutrition was presented as severe, moderate and total wasted. More boys (17.9%) had low weight for their length (wasting) than girls (9.3%) while wasting in the age group of 6-8 months was found to be highest (Table 12).

Table 3: Showing the Level of Wasting by Sex and Age of the Infants

	Gender of the infant		All n=246
	Girls (n=140)	Boys (n=106)	
Global malnutrition (< -2z-score)	123 (87.9%)	81 (76.4%)	204 (82.9%)
Moderate malnutrition (<-2 z-score and ≥-3 z-score)	13 (9.3%)	19 (17.9%)	32 (13.0%)
Severe malnutrition (< -3z-score)	4 (2.9%)	6 (5.7%)	10 (4.1%)

By age	Age group of infants			Total wasting
	<6 months	6-8 months	9-11 months	
Normal ≥ -2SD to <+2SD	98 (81.7%)	49 (83.1%)	57 (85.1%)	204 (82.9%)
Moderately wasted ≥-3SD to <-2SD	13 (10.8%)	9 (15.3%)	10 (14.9%)	32 (13.0%)
Severely wasting < -3SD	9 (7.5%)	1 (1.7%)	0 (0.0%)	10 (4.1%)

Chronic Malnutrition (Stunting)

More boys (15.1%) were short for their age than girls (9.3%) while stunting was highest in the age group 1-6 months (17.5%) (Table 13).

Table 4: Showing the Level of Stunting by Sex and Age of the Infants

	Gender of the infant		All n=246
	Girls (n=140)	Boys (n=106)	
Stunting (< -2z-score)	118 (84.3%)	74 (69.8%)	192 (78.0%)
Moderately stunted (<-2 z-score and ≥-3 z-score)	13 (9.3%)	16 (15.1%)	29 (11.9%)
Severely stunted (< -3z-score)	9 (6.4%)	16 (15.1%)	25 (10.2%)

By age	Age group of infants			Total stunting
	Less than 6 months	6 to 8 months	9 to 11 months	
Normal ≥ -2SD to < +2SD	84 (70.0%)	50 (84.7%)	58 (86.6%)	192 (78.0%)
Moderately stunted ≥ -3SD to < -2SD	21 (17.5%)	6 (10.2%)	2 (3.0%)	29 (11.8%)
Severely stunted < -3SD	15 (12.5%)	3 (5.1%)	7 (10.4%)	25 (10.2%)

Underweight

About 22.0 per cent of all the children in the study had a low weight for their age with only 17.9 per cent originating from boys. In addition, the age group 9-12 months had the majority of severely undernourished children (7.5%) of the featured groups (Table 5).

Table 5: Showing the Level of Underweight by Sex and Age of the Infants

	Gender of the infant		All n=246
	Girls (n=140)	Boys (n=106)	
Underweight (< -2z-score)	107 (76.4%)	66 (62.3%)	173 (70.3%)
Moderately underweight (<-2 z-score and ≥-3 z-score)	23 (16.4%)	19 (17.9%)	42 (17.1%)
Severely underweight (< -3z-score)	4 (2.9%)	8 (7.5%)	12 (4.9%)

By age	Age group of infants			Total underweight
	<6 months	6-8 months	9-11 months	
Underweight (< -2z-score)	88 (73.3%)	40 (67.8%)	45 (67.2%)	173 (70.3%)
Moderately underweight (<-2 z-score and ≥-3 z-score)	11 (9.2%)	16 (27.1%)	15 (22.4%)	42 (17.1%)
Severely underweight (< -3z-score)	5 (4.2%)	2 (3.4%)	5 (7.5%)	12 (4.9%)

Relationships between Morbidity and Nutritional Status

Pearson product moment correlation and chi-square was the statistical test utilized to assess the relationships between the morbidity and nutrition status with a significance level of 0.05. The indicators of the infant's nutrition status were assessed as wasting, underweight and stunting. Illness affects feeding practices thus causing the depletion of the nutrition status. The decreased intake of the food is because of the illness, which causes lack of appetite. A paired t-test showed that there were an association of child illness two weeks to the study and underweight ($\chi^2=43.409$, $P=0.001$, $df=32$), stunting ($\chi^2=34.515$, $P=0.005$, $df=16$) and wasting ($\chi^2=27.012$, $P=0.041$, $df=16$).

Table 7: Relationship between Morbidity and Nutritional Status

	χ^2 /Likelihood	
Variables	Ratio	P value*
Illness vs.		
Underweight	43.409	0.001*
Stunting	34.515	0.005*
Wasting	27.012	0.041*

*Pearson's chi-squared (χ^2) test at significant of $P<0.05$

DISCUSSIONS

Morbidity Patterns among the Infants

The most common illnesses among the infants were malaria and acute respiratory infections (ARI). Also prevalent was diarrheal diseases and common cold was also common which could be related with inappropriate sanitary habits. Additionally, hand-washing practices among these young mothers was not practiced before feeding of their children. This findings are similar to that of national data (KDHS, 2014) and from Narok County (Health report, 2018) where majority of children under five had malaria, respiratory infections and diarrhoea. The high malaria incidence could be associated to lack of treated mosquito nets and their infants were left to

caretakers. Morbidity in infants increases the risk of malnutrition due to increased nutrition demand, poor appetite leading to poor intake, mal absorption of nutrient as well as increased demand due to disease process.

Maternal Health Seeking Behaviour

Most of the mothers attended the ANC and sought medical help for the sick infants in hospitals. Slightly more than a third of them took their children for growth monitoring and those that did not either were engaged in farming activities or cited distance from the facilities as the reason. This is with agreement with the County health report (2018) where almost all mothers sought medical treatment at the health facility. As a whole, the health seeking behaviour among the adolescent mothers was good which was shown by the good response to illnesses among the young mothers by taking their children to the health facilities.

Immunization Coverage

Immunization is important because it enables the body of the child to fight against illnesses. Information obtained from child health cards indicated that most of the infants had not completed the immunization schedule. The immunization coverage for the children among adolescent mothers was appropriate. As compare to the national rate, this study had a higher coverage where almost all the children were fully immunized. This could be because of the available referral systems.

Nutritional Status of the Infants below 12 months

The prevalence of wasting (17.1%), stunting (22.0%) and underweight (19.1%) were above that reported in the KDHS 2014 where wasting, stunting and underweight for children 6-59 months were 4.0 per cent 26.0 per cent and 11.0 per cent respectively. The findings of this study were also higher than that of Wemakor et al. (2018) in Ghana except for stunting which was lower. The findings were also similar to the County Health report (2018) where stunting was 27.2 per cent while severe stunting was 7.7 per cent and underweight 18.9 per cent while severe underweight was 2.6 per cent This could have been contributed by the fact that young mothers are not ready for child care and hence contributing to the high prevalence of malnutrition.

This was also similar to the Narok County Health report of 2018 where boys had a higher malnutrition level than girls. The under nutrition among the males children could be because of food preference, serving more food in favour of a girl child. This finding agreed with the findings of Nguyen (2017) showing that malnutrition is a public health issue that needs to be addressed among infants of young mothers. Further, teenage motherhood is also a contributing factor in the malnutrition of their children as they are not ready to shoulder the responsibilities of childcare.

Relationships between Morbidity and Nutritional Status

Illness affects feeding practices thus causing the depletion of the nutrition status. The decreased intake of the food is because of the illness, which causes lack of appetite showed that there were an association of child illness two weeks to the study and underweight. During the past 14 days of study, illness was associated with the three indices of malnutrition. This finding therefore supports evidence that illness affects nutrition status of an individual as observed by Fekadu et al. (2015) where he found out that high diet quality was found to be less associated with illness. Additionally, diseases affect dietary intake of an individual.

4.0 CONCLUSIONS AND RECOMMENDATIONS

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Conclusion:

Health Status of the Infants

The morbidity burden was not very high among the infants. The most prevalent illnesses were malaria and common cold. Health seeking behaviour of mothers for their sick infants was appropriate with the majority of them seeking assistance from different hospitals within 24 hours of the child falling sick.

Malnutrition and Associated Factors among the Infants

The prevalence of under nutrition among the infants 1-12 months old was as follows; wasting 17.1 per cent underweight 22.0 per cent while stunting was 22.0 per cent Compared to the Kenya National rates for infants 1-12 months, the three indices in this study was higher (KDHS 2014). Infant feeding practices showed a positive significant relationship with nutritional status (underweight); that is exclusive breastfeeding and meal frequency. Infants who attained the minimum meal frequency and those who achieved the minimum acceptable diet were less likely to be underweight. Being that maternal education was the only significant caregiver characteristics that showed a relationship with nutrition status.

Recommendation: In order to contribute to the health needs of young mothers and their infants, support groups should be strengthened that provide peer counselling with a focus on promoting, protecting and supporting breastfeeding. The Ministry of Health should provide ongoing training of the health care workers on IYCF among young mothers. This will acquaint them with the required skills and education on IYCF knowledge in the study area in order to contribute to improved uptake of exclusive breastfeeding. There is need to train community health workers on infant and young child feeding among teenage mothers in the study area.

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