

Original Article

Minimum acceptable diet and associated factors among children aged 6-23 months in Aleta Wondo District, Sidama Region, Ethiopia

Bezuayehu Yisehak¹, Agune Ashole², Nebiyu Melaku³, Meskerem Jisso², Achamyesh Gebretsadik^{2*}

¹Aleta Wondo Woreda Health Office, Sidama Region, Ethiopia; ²School of Public Health, College of Medicine and Health Sciences, Hawassa University, Hawassa, Ethiopia ; ³Maternal, Child Health and Nutrition Core Process; Southern Nations, Nationalities, and Peoples' Regional Health Bureau, Ethiopia

*Correspondence: Achamyesh Gebretsadik; E-mail: agtsadik@gmail.com

Abstract

Background: Proper nutrition for infants and young children is critical for their health and development, especially during the first two years of life. The minimal acceptable diet (MAD) and associated parameters have yet to be thoroughly investigated. The objective of this study was to determine the minimum acceptable diet feeding practice and associated characteristics among children aged 6 to 23 months in Aleta Wondo District, Sidama Regional State, Ethiopia, in the year 2020.

Methods: A cross-sectional study was conducted. A total of 543 mothers/caregivers along with their children (6-23 months old) were included in this study. Data was collected by face-to-face interviews with structured questionnaires. Descriptive statistics and logistic regression analyses were carried out.

Result: The proportion of children aged 6 to 23 months who met the minimum acceptable diet was 13.8% (95% confidence interval [CI]: 10.9%, 16.7%). Children whose mothers/caregivers were above 35 years old (AOR: 3.7 [95% CI: 1.3, 9.1]), children from rich households (AOR: 3.8 [95% CI: 1.8, 7.9]), and children whose mothers/caregivers had food preparation training (AOR: 2.1 [95% CI = 1.1, 3.6]) were found to have higher odds of meeting the MAD requirement.

Conclusion: A small percentage of infants between the ages of 6 and 23 months have achieved the MAD requirement. Receiving MAD was shown to be linked to the mother's age, affluence, and food preparation training. In collaboration with a range of partners, focused attention and nutritional intervention are required, particularly increased training for mothers/caregivers on meal preparation from locally available food categories.

Key words: Minimum acceptable diet, children, Sidama Region, Ethiopia

Introduction

For children aged 6 to 23 months, it is critical to offer appropriate nutrition through good complementary feeding practices in order to promote healthy growth and development. After 6 months of life, breast or formula feeding is insufficient to address the developmental needs for newborns and young children, hence supplemental feeding is recommended (1). Minimum dietary diversity is a component of the complementary feeding indicator that refers to the percentage of children aged 6 to 23 months who received foods and drinks from at least four of the seven food groups the day before (2).

Proper feeding of infants and young children is essential for child survival and the promotion of healthy growth and development. Unfortunately, in many countries, less than a quarter of children ages 6-23 months meet the food diversity and frequency criteria appropriate for their age (3). It is well documented that the period from birth to two years of age is a "critical period" for the promotion of growth, health, and behavioral development (4). An adequate complementary diet is important to fulfill the energy and nutritional gaps of young children (5).

Complementary feeding should be timely and adequate, i.e., complementary foods should be given in appropriate amounts and with regular frequency and consistency. Complementary feeding should include a variety of foods that cover the nutritional needs of the growing child (while maintaining breastfeeding); should be composed of foods that are safe and appropriate (the texture must be such that the child can eat the food easily), and should be responsive to the child's hunger cues (6). According to the World Health Organization (WHO), proper complementary feeding consists of starting a child on solid, semi-solid or soft foods while providing minimum meal frequency, dietary diversity, and adequate quantities (7).

In Ethiopia, there is a significant regional variation in the proportion of children who receive the minimum acceptable diet, with the highest of 27% in Addis Ababa and the lowest of 2-3% in the Afar, Somali, and Amhara regions (8). Only 50% of infant's ages 6–8 months receive complementary foods while continuing to be breastfed (9). Over two-thirds of malnutrition-related child deaths are associated with inappropriate feeding practices in the first two years, i.e., contexts in which infant and young children do not receive a minimum acceptable diet (10).

Inadequate nutrition is primarily caused by poor levels of macronutrients and micronutrients because of low diversity. Secondly, poor frequency, consistency, and quantity of food are factors. Third, poor food and water safety, including contamination, poor hygiene practices during food preparation, and unsafe food storage are additional contributing factors (11).

Approaches to increasing intervention coverage include counseling mothers during antenatal care and postnatal care, and giving further counseling and support for breastfeeding and complementary feeding practices at critical points in a child's life thereafter (1). According to a study conducted in North West Ethiopia 2015, the prevalence of under nutrition among Ethiopian children is still significant, and under nutrition is strongly linked to a lack of complementary dietary practices within a minimum acceptable diet (12). There were still few studies that looked into the prevalence of a minimum adequate diet in children aged 6 to 23 months, including in the research district. Therefore, the purpose of this study was to investigate if children in the Aleta Wondo District, aged 6 to 23 months, had a minimum acceptable diet and any related factors.

Methods and materials

Study setting

A cross-sectional study design was conducted from February to March 2020 in the Aleta Wondo district, which is found in the Sidama Regional State of Ethiopia. It is 333 km away from Ethiopia's capital, Addis Ababa, and 62 km away from the city of Hawassa. The land in Aleta Wondo district is 72% arable or cultivable,

13% pasture, 7% forest, and the remaining 8% is considered swampy or unusable (13). Mixed agriculture makes up 98% of the population's means of subsistence. The main crops grown are coffee, *enset* (*Enset ventricosum*), avocado, and maize. The total population of women in the reproductive age group is 57,217, and there are an estimated 8620 children in the age range of 6-23 months. There are 7 health centers and 27 health posts in the district (14). See figure 1.

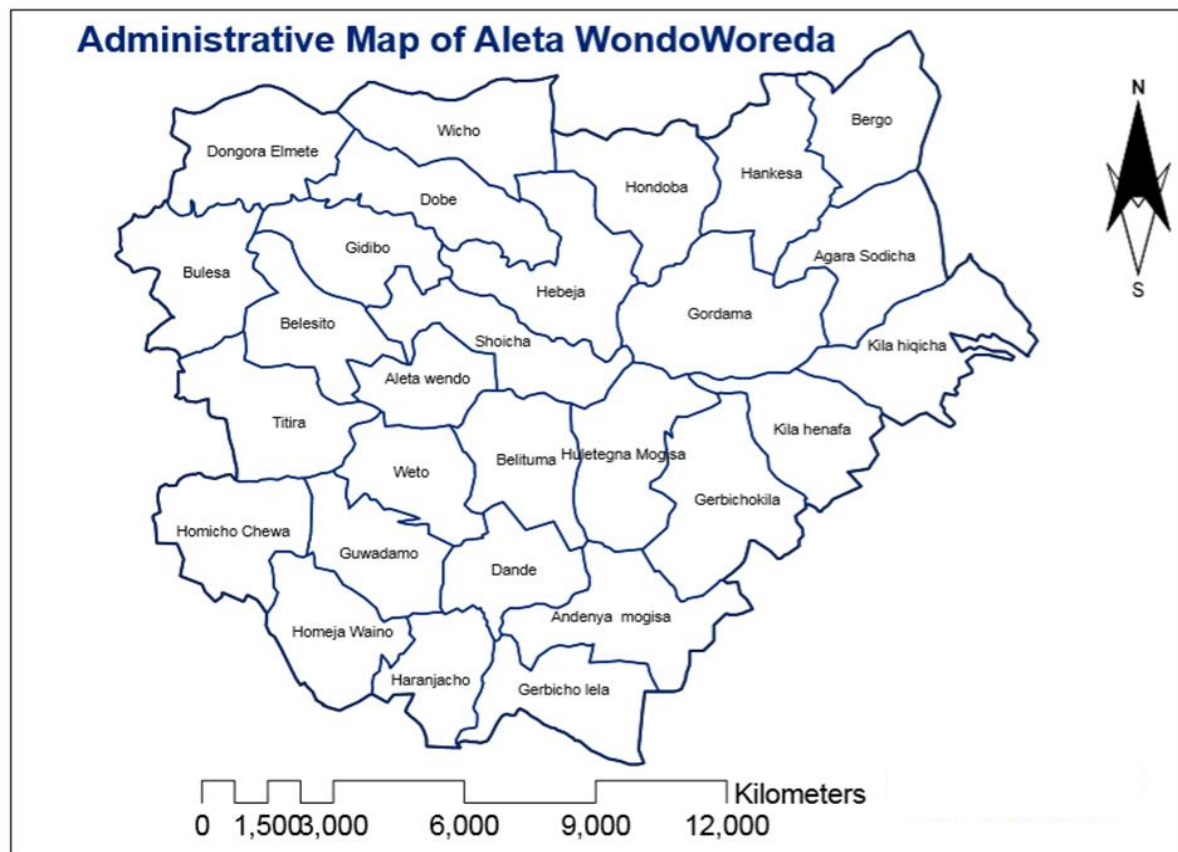


Figure 1: Map of the Aleta Wondo District (Source: Sidama Public Health Emergency Management)

Source population

Children 6–23 months of age, along with their mothers or caregivers, who have lived in the Aleta Wondo District for at least the past 6 months were the source population. The study population is all children ages 6–23 months and

their mothers/caregivers who meet the eligibility criteria of the study.

Sample size

The sample size was determined using a single proportion population and double population

calculation, taking the proportions from Southern Ethiopia for the minimum dietary diversity (MDD) of 27% and the minimum meal frequency (MMF) of 69% (15).

For MMF proportion 69%, there was a confidence level of 95%, a margin of error 0.05, a design effect of 1.5 and a 10% non-response rate. Maternal involvement in decision-making, child illness in the past week preceding the survey, and postnatal care visits were taken as factors associated with minimum acceptable diet, dietary diversity, and meal frequency (16-18). The sample size was calculated by considering a 95% confidence level and a power of 80%. Therefore, the sample size 544 was taken as the final sample size.

Sampling technique

Simple random sampling technique was used to select kebele and the study participants. Aleta Wondo District includes 27 rural *kebeles*, and 8 *kebeles* were chosen using simple random sampling. The selected kebeles were Belisto, Hankesa, Gowadamo, Gordema, Shiko, Wotto, Dande, and Bultuma. The sample size of the study participants within each *kebele* was proportionally distributed according to the population size of each *kebele*. The list of mothers/caregivers with children ages 6-23 months old were taken from the health posts of the selected *kebeles* and used as a sampling frame. A computer-generated sampling procedure was used to select the mother/caregiver of children ages 6-23 months from each selected *kebeles* according to the population size.

Children aged 6 to 23 months and their mothers or caregivers were included in the study if they had lived in the village for at least the previous six months, but a child whose appetite had been severely affected by illness was excluded. If a household had more than one child aged between 6 and 23 months, such as twins, one child was

chosen at random. Mothers or caregivers who were ill, experiencing mental health issues, or unable to communicate at the time of the study were also excluded.

Data collection process

The socio-demographic tools were adapted from the 2016 Ethiopia Demography and Health Survey (EDHS) (8). The dietary diversity and meal frequency tools were adapted from the WHO standardized questionnaire for Infant and Young Child Complementary Feeding (IYCF) practices and other similar studies, with some adaptations for the local context. The tools contained the following category of variables (2).

- **Child factors:** Age of child, sex of child, child illness in the week preceding the survey
- **Parental factors:** Age of the mother/caregiver, educational status of the mother/caregiver, employment status of the mother, educational status of the father, employment status of the father, involvement of the mother in household decision-making, parity of the mother, and birth order.
- **Health service factors:** Prenatal care visits, antenatal care visits, place of delivery, and growth monitoring.
- **Community and HH conditions:** Residence, family size, wealth index of family, exposure to media, home gardening.
- **Satisfactory exposure to the media:** At least four times per week, a child's mother/caregiver reads a newspaper or magazine, listens to the radio, or watches television.

- **Child illness in the past week:** Child illness in the week prior to the survey means that the child was ill a week earlier, but at the time of data collection the child was in healthy condition and had a good appetite.

Data were gathered by ten data collectors and three supervisors who were fluent in *Sidaamu Afoo*. The data collectors were nurses with the educational level of a diploma, while the three supervisors were health officers who hold a university degree.

Data quality management

The questionnaire was developed in English, then translated into Amharic and *Sidaamu Afoo* languages, then translated back to English by an independent translator to check for consistency.

The data collectors and supervisors were trained for one day. A pretest was conducted on 5% of the sample before collecting the data in two randomly selected *kebeles*. Data were collected for two weeks throughout the day, since people may eat differently on different days of the week. Vacant or non-responding houses on the day of the visit were revisited twice to maintain the required sample size. The collected data were checked every day by the supervisor and the principal investigator for completeness and consistency. All questionnaires were kept locked cabinets for security and confidentiality of the collected data.

Double data entry was undertaken using Epi data version 3.1. After double entry, the data were verified for consistency. Any inconsistencies in the pairs were corrected using the original questionnaire. The data were exported to SPSS version 25 for cleaning and analysis.

Operational definitions

Minimum dietary diversity: A child in the study has been fed 4 or more food groups on the preceding day from among the 7 food groups: 1) grains, roots, and tubers; 2) legumes and nuts; 3) dairy products (milk, yogurt, and cheese); 4) meat, fish, poultry; 5) eggs; 6) vitamin-A rich fruits and vegetables; 7) other fruits and vegetables (2).

Minimum meal frequency: For breastfed children 6–23 months of age who receive solid, semi-solid, or soft foods, the minimum meal frequency is 2 times for infants 6–8 months, and 3 times for children 9–23 months. "Meals" includes both meals and snacks (7). For non-breastfed children 6–23 months of age who receive solid, semi-solid, or soft foods (including milk given to non-breastfed children), the minimum meal frequency for children 6–23 months is 4.

Minimum acceptable diet: This composite indicator was calculated from the following two fractions: 1) Breastfed children 6–23 months of age who had at least the minimum dietary diversity and the minimum meal frequency during the previous day; 2) Non-breastfed children 6–23 months of age who received at least 2 milk feedings and had at least the minimum dietary diversity (not including milk feeds) and the minimum meal frequency during the previous day (2).

Wealth status of households: Household wealth status was established using Principal Component Analysis (PCA) by considering ownership of selected household assets, such as possession of agricultural land, number of livestock, the quality of materials used to construct the house, the number of rooms in the house, ownership of an improved latrine, access to drinking water, and source of light in the household. Variables were first coded and ranked according to their importance, with a binary

outcome recoded as 1 for yes, 0 for no, and a variable with multiple choices recoded according to its importance, before being entered and analyzed using PCA. Finally, the factor scores have been summed up and ranked into poor, medium, and rich.

Data processing and analysis

Descriptive statistics such as measures of central tendency, frequency, and percentage were calculated and presented using charts and tables.

Bivariate logistic regression was done, and all explanatory variables which had an association with the outcome variable with a p-value of less than 0.25 were included in the multivariable analysis. To identify independent determinant factors among explanatory variables, stepwise backward logistic regression was used. Adjusted odd ratios (AORs) with 95% confidence interval (CI) were determined. A p-value less than or equal to 0.05 was used to determine a statistically significant association with the outcome variable.

To determine dietary diversity (DD), those whose diets included 4 or more food groups were categorized as “1” (meet DD) and those with less than four were categorized as “0” (not meet DD). Meal frequency was categorized differently for different age groups according to WHO recommendations. To determine the meal frequency (MF) for non-breastfed children 6-23 months of age, those who had at least 4 meals during the previous day were categorized as “1” (meet MF), and those who had less than 4 meals were categorized as “0” (not meet MF). Breastfeeding children 9-23 months of age who had 3 or more meals during the previous day were categorized as “meet MF” and those who had less than 3 meals during the previous day were categorized as “do not meet MF.” Breastfed children aged 6 to 8 months, on the other hand, were considered to have met MF if they were fed twice or more the day before.

The two categories of DD and MF were added together to calculate the minimum acceptable diet. Those with a score of 2 were classified as meeting the minimum acceptable diet, while those with a score less than two were classified as not meeting the minimum acceptable diet. Model fitness has been assessed using a Hosmer-Lemeshow test ($P = 0.456$). This demonstrated that the model was fit. Multicollinearity was checked by the variance inflation factor (VIF).

Results

Study participants’ socio-demographic and economic characteristics

A total of 543 mothers/caregivers with their respective children aged 6-23 months participated in the study, yielding a response rate of 99.8%. The median age of the mothers/caregivers was 27.7 years. Four hundred four (74.4%) of mothers/caregivers had a primary level of education; 29.5% of children included in the study were in the age category of 6-11 months and 222 (40.9%) of mothers/caregivers had good exposure to the media (Table 1).

Maternal and child health characteristics

The majority of mothers in the study, 96.5%, received antenatal care (ANC), and 62.3% received 4 or more ANC services; 78.1% of the mothers gave birth at a health facility, 28.7% of mothers received no postnatal care (PNC) and 23.2% of mothers had PNC 7 days after giving birth. 65.2% of the children did not have growth monitoring follow-up. 13.3% of the children experienced an illness in the week preceding the survey (Table 2).

Table 1: Socio demographic and economic characteristics of children aged 6-23 months in Aleta Wondo district, Sidama region, Ethiopia, 2020

Variable	Category	Frequency	Percent (%)
Child characteristics			
Age of child	6-11 month	160	29.5
	12-17 month	211	38.9
	18-23 month	172	31.7
Sex of child	Male	266	49
	Female	277	51
Mothers' characteristics			
Age of mother	17-24 year	177	32.6
	25-35 year	314	57.8
	>35 year	52	9.6
Mother education	Primary (1-8)	404	74.4
	Secondary(9-12)	54	9.9
	College/university	8	1.5
	Cannot read/write	77	14.2
Household characteristics			
Family size	1 – 3 Family size	93	17.1
	4 – 6 Family size	331	61
	≥7 Family size	119	21.9
Exposure to media	Good exposure	222	40.9
	No good exposure	321	59.1
Source of information	Health professional	404	74.4
	Relative	80	14.7
	Friends	52	9.6
	Family	7	1.3
Education on DD and MF	Yes	283	52.1
	No	260	47.9
Food preparation training	Yes	181	33.3
	No	362	66.7
Wealth index	Poor	217	40
	Middle	109	20.1
	Rich	217	40

Note: DD = Dietary Diversity; MF = Meal Frequency

Table 2: Maternal and child health related characteristics among children aged 6-23 months in Aleta Wondo district, Sidama region, Ethiopia, 2020

Variable	Category	Frequency	Percent (%)
Ante natal follow up	Yes	524	96.5
	No	19	3.5
ANC service category	1 – 3 ANC service	198	37.7
	≥4 ANC service	327	62.3
Place of delivery	Health facility	424	78.1
	Home	119	21.9
PNC follow up	Yes	387	71.3
	No	156	28.7
Time of PNC follow up	Within 1 – 2 days	239	61.8
	Within 3 – 6 days	58	15
	After 7 days	90	23.2
Growth monitoring follow up	Yes	189	34.8
	No	354	65.2
Child illness	Yes	72	13.3
	No	471	86.7

Note: ANC = Antenatal Care; PNC = Post Natal Care

Child feeding characteristics

In the study, 14.7 % (95% CI: 11.74%, 17.72) met the requirements for dietary diversity, 86.9% (95% CI: 84.08%, 89.77%) of children met the requirements of minimum meal frequency and 13.8% (95% CI: 10.91%, 16.72%) of children met the minimum acceptable diet (Figure 2).

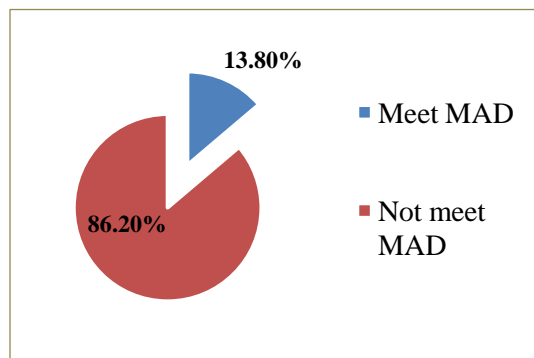


Figure 2: Magnitude of minimum acceptable diet among children aged 6-23 months in Aleta Wondo District, Sidama Region, Ethiopia, 2020

From the total, 94.7% children were breastfed, and 76.2% of the mothers/caregivers introduced additional food at 6 months; 3.9% of non-breastfed children were fed 4 or more times per day and 12.5% of the breastfed children were fed at least twice a day (Table 3).

Food groups consumed by children

Figure 3 shows that grains, roots, and tuber foods were consumed by 89.5% of children, while other fruit and vegetables were consumed by 65.5%.

Table 3: Feeding practices for children aged 6-23 months in Aleta wondo district, Sidama region, Ethiopia, 2020

Variable	Category	Frequency	Percent (%)
Child breast feed ingstatus	Yes	514	94.7 %
	No	29	5.3 %
Introduction of additional food	Before six months	14	2.6 %
	At six months	414	76.2 %
	After six months	105	19.3 %
	I do not know	10	1.8 %
Number of feeds for non-breastfed children	Twice	3	0.6 %
	Three times	5	0.9 %
	Four or more times	21	3.9 %
Number of feeds for breastfed children	Once	1	0.2 %
	Twice	68	12.5 %
	Three times	277	51 %
	Four or more times	168	30.9 %

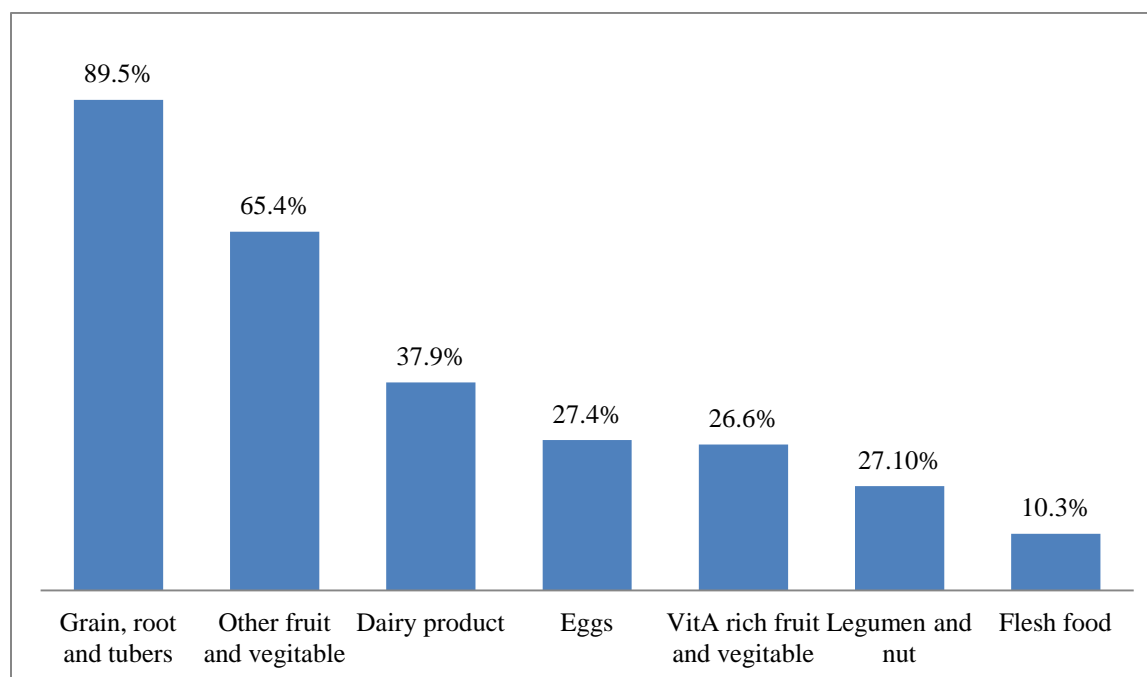


Figure 3: Percentage of food groups consumed by children in Aleta Wondo District, Sidama Region, Ethiopia, 2020

Factors associated with minimum acceptable diet

Children of mothers/caregivers over the age of 35 were nearly 4 times more likely to meet the minimum acceptable diet (AOR = 3.7, 95% CI, 1.3, 9.1) than children of mothers aged 17-24

years. Children aged 12-17 months were approximately three times more likely to have MAD than children ages 6-11 months (AOR = 2.8, 95% CI = 1.2, 6.4). Children from wealthy families are approximately 4 times more likely to have MAD than children from low-income families. (AOR = 3.8, 95% CI = 1.8, 7.9).

Children with mothers who received food preparation training were more than twice as likely to have MAD as children whose mothers did not receive food preparation training (AOR = 2.1, 95% CI = 1.1, 3.6) A child born to a mother

who had 1-2 live births is more than twice as likely to have MAD as a child born to a mother who had 5 or more live births (AOR = 2.6, 95% CI = 1.1, 6.4) (Table 4).

Table4: Factors that influence meeting MAD among children 6-23 months in Aleta Wondo district, Sidama Region, Ethiopia, 2020

Variable	Meet MAD		COR (95% CI)	AOR (95% CI)	
	Yes	No			
Age of Mother (in year)	17-24	17	160	1	1
	25-35	41	273	1.4(.7,2.5)	1,1(.56, 2.1)
	>35	17	35	4.5(2.1,9.8)	3.7(1.3, 9.1)*
Age of the Children (in month)	6 – 11	10	150	1	1
	12 – 17	35	176	2.9(1.4,6.2)	2.8 (1.2, 6.4)*
	18 – 23	30	142	3.1(1.4,6.7)	2.8(1.2, 6.5)*
Food preparation Training	Yes	41	140	2.8(1.7,4.6)	2.1(1.1, 3.6)*
	No	34	328	1	1
Wealth index	Poor	11	206	1	1
	Middle	9	100	1.6(.6,4.2)	1.1(.4, 3.1)
	Rich	55	162	6.3(3.2,12.5)	3.8(1.8, 7.9)*
Parity of Mother	1 – 2	56	235	2.3(1.1, 5.1)	2.6(1.1, 6.4)*
	3 – 4	11	159	.6(.2, 1.7)	.6(.219, 1.8)
	≥5	8	78	1	1

Note: MAD = Minimum Acceptable Diet; CI = Confidence Interval = AOR = Adjusted Odds Ratio;

* Variables with P value <0.05

Discussion

The study revealed that the proportion of children meeting the minimum acceptable diet was 13.8%. This result is in line with the study done in Shewa zone, which found that 13.3% of children in this age range received MAD (19), and in Arsi Negelie districts were 12.3% (20). The possible explanation for this similarity might be the study setting. The result was higher when compared to previous findings from Aleta Wondo which reported that 8.6% of children received MAD (21) and Gorchea district where 8.4% received MAD (22). A possible explanation for this increase is that during the interim period between these studies, a non-governmental organization supported the district with nutritional activities. For example, it provided food preparation training for health

staff at the health center, health extension workers, and community members, with a special focus on women. Another reason may be a difference in when the studies were carried out. The findings shared here are also higher than a study done in Dembecha district of North Ethiopia where the results were 8.6% (16). In the Dembecha study, the majority of mothers/caregivers were Ethiopian Orthodox Tewahedo Christians and the study was conducted during the fasting season, which may have suppressed the number of food groups represented since older family members would not be eating meat, dairy, or eggs during this time. The findings shared here are also higher than the findings in Ethiopia's 2016 Demography and Health Survey (EDHS), which ranged from 6.1 to 7% (8, 23). The reason for this disparity could be that the EDHS survey is managed on a national scale.

The results in this study were lower than the findings from Sodo of southern Ethiopian region which was 21.1% (15). For additional comparison, Ghana's results are 29.9% (24), and Indonesia's are 39.9% (25). These studies were conducted to assess dietary diversity and meal frequency. Furthermore, differences in socioeconomic status may influence the family's current purchasing power for food.

In this study, children with mothers/caregivers over the age of 35 were about four times more likely to meet the recommended minimum acceptable diet than children with mothers/caregivers aged 17-24. Though there is no study that explores the association of maternal age with MAD, a possible explanation for this might be that as the age of the mother increases, she might have developed rich experience about how to feed her child, how to prepare a diversified diet, when and how many times the child should have food per day, and proper care of a child that helps to meet the minimum acceptable diet.

Children whose age was 12-17 months compared to children ages 6-11 months were about 3 times more likely to meet the minimum acceptable diet. Children in the age group 18-23 months were more than twice more likely to meet the requirements for a minimum acceptable diet than the 6-11 month age group. This finding is supported by a study done in Ethiopia (23). A possible reason for this finding may be that as the age of the child increases, the ability to digest and absorb different types of food increases, and mothers/caregivers are therefore diversifying their meals accordingly. Perhaps mothers/caregivers believe that providing different types of food and increasing the feeding frequency for older children is positive, while in younger children they are afraid that they could harm the child or cause an illness by feeding them a variety of foods. If true, this would contribute to higher rates of older child meeting the minimum acceptable diet.

A child from a wealthy family is approximately 4 times more likely than a child from a poor family to meet the minimum acceptable diet. The finding is in line with a study done in the Democratic Republic of Congo (26). This may be because rich households are able to afford different types of food for their children, to maintain good childcare, to manage children's health, and provide a healthy living environment for children, including meeting the minimum acceptable diet.

In this finding, children raised by mothers/caregivers who were trained in food preparation training were more than twice more likely to meet the minimum acceptable diet than mothers/caregivers who were not trained in food preparation. This result is consistent with studies in the Amhara region, where mothers received IYCF guidance from healthcare workers and had more odds of MAD (27, 28).

A possible explanation for this finding is that training in food preparation increases a mother/caregiver's knowledge regarding food diversity necessary for a child. Another possible explanation is that food preparation teaches mothers/caregivers how to cook food appropriate for their child's age, in turn allowing the child to eat a diversity of foods in a form they can easily chew, swallow, and digest. Training can help mothers/caregivers prepare a variety of foods and overcome any fears of exceeding the child's minimum acceptable diet.

These findings also demonstrate that children whose mothers had 1-2 live births were more than twice as likely to have MAD as children whose mothers had 5 or more live births. This finding contradicts the finding in the Philippines that mothers with more than 3 children were more likely to have MAD than mothers with less than 3 children (29). This disparity could be explained by differences in study settings, socio-demographics, and the economy. Another possible explanation is that in this study three fourth of the mothers/caregivers were not educated. Thus, this might affect their income

and the knowledge they had to providing dietary diversity and meeting the recommended minimum meal frequency for the child, thereby assisting the child in meeting the minimum acceptable diet.

The present study has strengths and limitations. Since the study was community-based, the findings of the study can be generalized to the target population. However, the data was collected through self-report, so there may be a social desirability bias. In this study participants were asked to remember retrospectively what type of food was given to the child in the past 24 hours and also how many times the food was given to the child in the past 24 hours. Therefore, there may also be recall bias.

Conclusion

The provision of minimum acceptable diet to children aged 6-23 months was very low in the study area. More than three-fourths of the children did not meet the minimum acceptable diet standards according to WHO measurements. Advanced age of the mother, advanced age of the child, wealth and food preparation training were positively associated with the minimum acceptable diet. In particular, intensive food preparation training from locally available food groups for the mother or caregiver is recommended to ensure that children receive MAD. Interventions that increase and encourage feeding practices of children to meet MAD are recommended, and all stakeholders should participate in the implementation.

Acknowledgments

The authors would like to thank the Almighty God for his mercy. The authors would also like to extend their appreciation to all the mothers/caregivers for their willingness to participate in the study. Finally, the authors would like to thank Hawassa University's

College of Medicine and Health Sciences, School of Public Health, for the support granted.

Ethical considerations

On the date of 12/02/2020, the Hawassa University College of Medicine and Health Sciences Institutional Review Board granted ethical approval with a reference number IRB/054/12. Permission was obtained from all of the relevant health facilities. Mothers/caregivers gave their informed consent orally once the study's goal was explained to them. The study's participants volunteered to be a part of the study. Those who did not want to engage in the study or who wanted to cancel their involvement during the interview were assured of their rights to do so. By anonymizing the questionnaire data, the study's confidentiality was protected at all levels.

Data Availability

The datasets generated and/or analyzed during the current study are available upon reasonable request from the corresponding author.

Conflict of interest

The authors declared no conflicts of interest exist.

Funding statement

No funding was received for this research.

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