



Factors associated with Dietary Practices and Nutritional Status among Pregnant Women in Wondo Genet district, SNNPRS Desalegn Kuche , Ethiopian Public Health institute

Abstract

There is no study that documented dietary practices, nutritional status and associated factors among pregnant women after the introduction of the national nutrition program.

Objectives: To assess dietary practices, nutritional status and associated factors among pregnant women in study area.

Methods: A cross-sectional survey was employed for the study. Two-stage cluster sampling was used. 153 pregnant women aged 19-49 years were the subjects. Energy and nutrient intakes were calculated from one day weighed food records on a sub-sample (n = 77). Structured questionnaire was used to collect data.

Results: Energy intake of study participants in 2nd and 3rd trimesters pregnancy were 2308 kcal for 2340 kcal and 1420.5 kcal for 2452 kcal. Vitamin A intake was 3 micro grams for 800 micro grams. Protein intake of the study respondents in 2nd and 3rd trimester pregnancy was 45.9 g and 31.5g for 71g. Majority (75.2 %) of study participants did not take additional meal during pregnancy. 69.3 % skipped one of their regular meals. Total of 9.2 % of the study subjects were undernourished. Factors associated with nutritional status and dietary practices were number of pregnancy, consumption of cereal foods, household size, growing *khat* and vegetables.

Conclusion: Energy and most of the nutrients intakes of study participants were lower than recommended intakes. Dietary practices and nutritional status of study participants were not adequate to support their increased energy and nutrient requirement.

Background: Malnutrition is a serious public health problem linked to increase in the risk of mortality and morbidity (Blossner and de Onis, 2005). Women and young children are most affected. Diets that are deficient in macro and micronutrients place people at risk of malnutrition. A total of 925 million people are undernourished in 2010 world wide (FAO, 2010)

Pregnancy is a critical period for meeting the body's demand for macro- and micronutrients (West, 2002; Mason *et al.*, 2001). Pregnancy increases energy needs by 13% , protein by 54% & vitamin and mineral by 0-50% .

In developing countries poor nutritional status in pregnancy accounts for 14% of fetuses with IUGR , maternal stunting may account for a further 18.5% (ACC/SCN, 2000) In Ethiopia 50 % of the population cannot meet their daily minimum energy requirement of 2200 calories (MOPED, 1999) , 871 and 673 maternal deaths per 100,000 live births in 2000 and 2005, respectively. Rural women are more likely to suffer from CED than women in urban areas (Teller and Yimar, 2000) . Filling the gap in knowledge of maternal under nutrition and generating information for intervention is important to maternal nutritional during pregnancy. General Objective was to assess nutritional status dietary practices and associated factors of pregnant women in study area. To assess the nutritional status of pregnant women . Specific objectives were to explore dietary practices of mothers during pregnancy, to identify the factors associated with nutritional status of pregnant women and to investigate the factors associated with sub-optimal dietary practices of pregnant women .

Method

Study area was Wondo Genet district, Sidama Zone , South Ethiopia .Total population in the woreda was 37,010. The number of reproductive age women was 26,729 and the estimated number of pregnant women was 5010. Study design was Cross sectional community based survey. Study Period was February to March , 2011. Source population were pregnant women aged 19-49 years. 2nd and 3rd trimester pregnant women were Study population. 153 sample size was determined based on prevalence of inadequate dietary iron intake among pregnant women from the previous research. Two-stage cluster sampling technique was used . In 1st stage, 3 kebeles were selecting by probability proportional to size sampling technique (PPS) out of the total 13 kebeles and in 2nd stage-Individuals were Selected.The sample size was allocated equally to each of the selected kebeles The individuals to be studied were selected from the list of grouped pregnant mothers by SRS. Instrument s used wer questionnaire, height measuring board, digital scale, MUAC measuring tape and fundal height measuring tape.Trained data collectors administered the questionnaire. Measurements of height and mid-upper arm circumference (MUAC) was taken in duplicate on each pregnant woman. One-day weighed food records was assessed in respective homes of selected sub-sample (77) of the study participants. Foods and beverages consumed by pregnant women were weighed using digital scales. Food frequency of subjects was asked over the past one month.The meal frequency of the pregnant women was asked. Food restriction habit during pregnancy was investigated. SPSS version 16.0 and food processor was employed for Data analysis. Supervision, checking consistency, completeness, and data cleaning was considered. Ethical Review Committee of Hawasss University (HU approved study. Written consent was obtained from the study participants.

Results : Table 1. Association between some variables with maternal nutritional status (MUAC) of the study participants (n=153)

Variables	Nutritional status		Crude OR(CI)	Adjusted OR (CI)
	Malnourished (MUAC<21cm) No.(%)	(MUAC≥21) No.(%)		
Age	14(9.2)	139(90.8)	0.84(0.71-0.99)*	-
Having cereal based foods	7(4.6)	110(71.9)	1	1
Yes	7(4.6)	29(19.0)	3.79(1.23-11.68)*	3.69(1.11-12.3)*
No				
Having beans or peas	7(4.6)	107(69.9)	1	-
Yes	7(4.6)	32(20.9)	3.34(1.091-10.244)*	
No				
Number of pregnancy	14(9.2)	139(90.8)	1.48(.95-2.31)	1.96(1.02-3.75)*

Conclusions

The nutritional status and dietary practices of pregnant women in rural community of the study area were not adequate and optimal to support the increased energy and nutrient requirement of the pregnant women.

Table2. Association between some variables with suboptimal dietary practice (no additional meal during pregnancy) of the study participants (n=153)

Variables	Taking additional meal		Crude OR(CI)	Adjusted OR (CI)
	Yes Number (%)	No Number (%)		
Family size				
<4	23(15)	46(30.1)	1	1
≥4	15(9.8)	69(45.1)	2.3(1.09-4.87)	18.54(1.24-58.8)*
Food outside home				
Yes	9(5.9)	11(7.2)	0.34(0.13-0.90)*	-
No	29(19)	104(68)	1	
Growing khat				
Yes	24(15.7)	97(63.4)	3.14(1.37-7.20)*	5.36(1.87-15.38)**
No	14(9.2)	18(11.8)	1	1
Growing veg. and fruits				
Yes	25(16.3)	55(35.9)	1	1
No	13(8.5)	60(39.2)	2.10(098-4.50)	4.06(1.46-11.26)**

Figure: Micronutrients intake of 2nd and 3rd trimester pregnant women and dietary practices of study participants

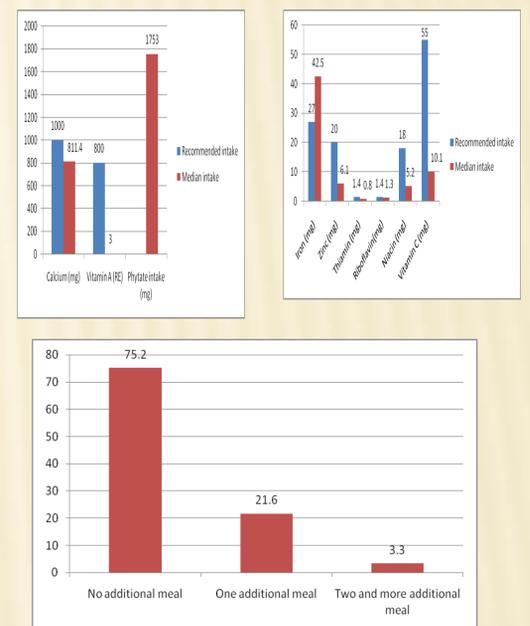


Table 3.: Association between some variables with suboptimal dietary practice (skipping meals) of the study participants (n =153)

Variables	Skipping meal		Crude OR(CI)	Adjusted OR (CI)
	Yes	No		
Age of mothers	106(69.3)	47(30.7)	1.16(1.1-1.28)**	
Household size	106(69.3)	47(30.7)	1.22(1.03-1.44)*	1.54(1.15-2.06)**
Owning umbrella				
Yes	60(39.2)	35(22.9)	0.45(0.83-4.49)*	-
No	46(30.1)	12(7.8)	1	
Owning radio				
Yes	46(30.1)	32(20.9)	0.36(0.17-0.74)**	-
No	60(39.2)	15(9.8)	1	
Having cereal based foods				
Yes	75(49)	42(27.5)	0.29(0.1-0.8)*	-
No	31(20.3)	5(3.3)	1	
Number of pregnancy				
First pregnancy	15(9.8)	18(11.8)	1	1
Second and more pregnancy	91(59.5)	29(19)	3.77(1.69-8.40)**	3.46(1.32-9.09)*

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