**Background** In Ethiopia, 17% of rural pregnant women suffer from suboptimal nutrition levels. One of the major reasons is that both maternal nutritional knowledge and maternal nutrition attitudes of Ethiopian rural women are among the lowest and poorest in the world. In this quantitatively weighted and sequential (QUANà qual) mixed method true experimental (with matching control group) research study, I investigated the nature of the relationship between eight independent variables under two conditions.

**Objectives** The purpose of this mixed methods research study was to determine the relationships among a community prenatal nutrition education intervention for pregnant and non pregnant women (ages 18–49 years), maternal nutrition knowledge, and maternal nutrition attitudes.

Methods A control and experimental village was used in the Alaje district of northern Ethiopia. The intervention consisted of teaching portion sizes, eating 1 extra meal per day and getting adequate rest during pregnancy. Economic development theories were each presented by Szirmai, Sen, Sachs, Collier, Yunus, Thirlwall, Banerjee, Easterly, Polak, and Meier. The central research questions were focused on key behaviors and factors concerning maternal nutrition knowledge and maternal nutrition attitudes. Health workers recruited 270 pregnant and non pregnant women, one-half in each village, Takha, the intervention village and Dejen, the control village. The quantitative data were analyzed using 1-way ANOVA and descriptive statistics and the qualitative data were coded manually according to key phrases: cultural traditions, nutrition perceptions and prenatal nutrition education access.

**Result** Findings indicated that the information on portion sizes had an overall positive effect on both maternal nutrition knowledge and maternal nutrition attitudes, supporting the alternate hypothesis. With regards to the qualitative data, the focus groups in the post-testing phase had promoted more awareness on the importance of adequate rest, portion sizes, and eating one extra meal per day throughout pregnancy in the intervention village.

**Conclusion** Key findings can also inform pregnant women, non pregnant women and health workers in Ethiopia about the importance of adequate prenatal nutrition to ensure healthy babies and mothers. This study has yielded critical evidence on prenatal nutrition education. Although the findings can be corroborated or refuted by other researchers in similar future research studies, the evidence has displayed how a community intervention on prenatal nutrition education can make a difference in the lives of poor and disadvantaged women.

## REFERENCE

- 1 Academy of Educational Development. Trainer's guide: Using the essential nutrition actions to improve the nutrition of women and children in Ethiopia, including under situations of emergencies and HIV and AIDS. Addis Ababa, Ethiopia: Academy of Educational Development. Retrieved from http://www.ennonline.net/pool/files/ife/ ena-module-ethiopia-linkages.pdf 2004.
- 2 Daba G, Beyene F, Fekadu H, *et al*. Assessment of Knowledge of Pregnant Mothers on Maternal Nutrition and Associated Factors in Guto Gida Woreda, East Wollega Zone, Ethiopia. *Journal of Nutrition and Food Science* 2013;3:105–13.

## 044 RELATIONSHIPS BETWEEN A PRENATAL NUTRITION EDUCATION INTERVENTION AND MATERNAL NUTRITION IN ETHIOPIA

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