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Orthodox Fasting and Lactating Mothers: Longitudinal Study on Dietary Pattern and Nutritional Status in Ethiopia

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Abstract

About half of Ethiopians belong to Orthodox Tewahedo religion. Religious fasting from any animal source foods and abstaining from any foods and water for some hours daily affects over 200 days annually. However, association of fasting with undernutrition and dietary pattern remain unknown. Therefore, dietary pattern and nutritional status of lactating women during lent fasting and non-fasting periods were studied, and predictor variables for maternal underweight identified. For this, five hundred seventy-two and five hundred twenty-two mothers participated in the lent fasting and non-fasting periods, respectively. Average minimum-women diet diversity score (M-WDDS) was computed from two 24-hr recalls and nutritional status was assessed using body mass index (BMI). Binary logistic regression was used to identify potential predictors of maternal underweight. Wilcoxon signed-rank (WSRT) and McNemar's tests were used for comparison of the two periods. The prevalence of underweight in non-fasting and fasting mothers were 50.6 % and 25.9 %, respectively. In multivariate logistic regression model, younger age, sickness in the last four weeks preceding the survey, fasting during pregnancy, and lactation periods; grandfather as households' decision maker, previous aid experience, non-improved water source, and not owning chicken were positively associated with maternal underweight. In WSRT, there was no significant ($p > 0.05$) difference on maternal body weight and BMI between periods. Meal frequency, M-WDDS, and animal source foods (ASFs) consumption were significantly increased in non-fasting than fasting period by both fasting and non-fasting mothers ($p < 0.001$, $p < 0.05$, and $p < 0.001$, respectively). Conversely, consumption of dark green leafy vegetables was higher in fasting period than non-fasting. As conclusion, Ethiopian Orthodox fasting affected negatively maternal nutritional status and dietary pattern in rural Tigray, northern Ethiopia. To reduce maternal malnutrition in Ethiopia, existing multi-sectoral nutrition intervention should include religious institutions in sustainable manner.

Keywords: ASFs Consump, Ethiopia, Ethiopian orthodox Lent fasting, lactating mothers, underweight