

Effect of Preconception Picture-Based Nutrition Education on Knowledge and Adherence to Iron-Folic Acid Supplement among Women Planning to Be Pregnant in Ethiopia

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Abstract : Any woman who could become pregnant is at risk of having a baby with neural tube defects (NTDs). A spontaneous aborted women with immediately preceding pregnancy may have an increased risk of develop NTDs. Ethiopia has one of the highest rates of micronutrient deficiencies, including folate and iron deficiency. Currently, in Ethiopia, NTDs is emerged as a public health concern. Even if Ethiopia, has implement different strategies for reducing maternal and neonatal mortality and morbidity, there is no room in the health care system and lack of integration for preventing the risk of NTDs for those women who aborted spontaneously and women who discontinue long acting contraception to become pregnant. The purpose of this study was to evaluate the effect of preconception picture-based nutrition education on knowledge and adherence to iron-folic acid supplement (IFAS) intake to reduce the risk of developing neural tube defects (NTDs) and iron deficiency anemia (IDA) among women who had a planned to pregnancy in Ethiopia, a country with a high burden of NTDs. Methodology: This study was conducted in Eastern Ethiopia. A double blinded parallel randomized controlled trial design was employed among women in the age group of 18-45 years who requested to interrupt modern contraceptive who have an intention to be pregnant and women with spontaneous abortion who refused to take a contraceptive. The interventional arm (n=122) received a preconception picture-based nutrition education with iron-folic acid supplement, and the control arm (n=122) received only preconception IFAS. In this study male partners were participated. Result: After three months of intervention the proportion of adherence to IFAS was 23% (n=56). With regard to adherence within the groups, 42.6% (n=52) in the intervention group and 3.3% (n=4) in the control group and the intervention group were significantly higher than in control group. In the intervention group the proportion of adherence to IFAS intake among participants increased by 40.1% and there were statistically difference (P<0.0001). The difference in difference between the two groups of adherence to IFAS intake was 37.6% and there were a statistical significance (P<0.0001). Level of knowledge between the groups did differ before and after intervention (P= 0.87 Vs P<0.0001). The overall the mean change in knowledge Mean (+SE) between group was 0.9 (+3.04 SE) and there were significant differences between two groups (P<0.001). Conclusion: In general this intervention is effective toward adherence to IFAS and a critical milestone to improve maternal health and reduce the neonate mortality due to NTDs and other advert effect of pregnancy and birth outcomes. This intervention is very short, simple, and cost effective and has potential for adaptation, feasible development to large-scale implementation in the existing health care system. Furthermore, this type of interventional approach has the potential to reduce the country's ANC program dropout rates and increase male partner's participation on reproductive health.

Keywords : NTDs, IFAS, WRA, Ethiopia

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