

ABSTRACT

Folic acid deficiency in women of child bearing age is a proven cause for Neural Tube Defects (NTD) of the foetuses and anaemia of the women. Therefore some countries have attempted mandatory folic acid fortification, and others started pre-conceptional and periconceptional folic acid supplementation, targeting women of childbearing age. Studies done on serum folic acid levels has revealed that folic acid deficiency is prevalent in Sri Lanka among the women of child bearing age. We do not have accurate data on NTD prevalence for Sri Lanka. Folic acid supplementation programme in Sri Lanka is implemented through Public Health Midwives (PHMM) to women who are expected to be conceived and who already are pregnant. After a several years of starting the programme still we do not have reliable data on the impact of it. Most of the international studies and the limited studies done in Sri Lanka have shown that the desired outcome is not achieved.

This study was aimed to describe the knowledge, attitudes and practices on folic acid supplementation and associated factors among pregnant mothers and the relevant services provided by PHMM in relation to folic acid supplementation in Kegalle Medical Officer of Health (MOH) area.

A descriptive cross sectional study was carried out in Kegalle MOH area in 2011. All the currently pregnant mothers registered with PHMM of Kegalle MOH area during the data collection period, all the field PHMM of the Kegalle MOH, and all the antenatal clinics held/facilitated by the staff of Kegalle MOH were the study population. Using a systematic random sampling method, a representative 526 pregnant mothers from all the antenatal clinics of Kegalle MOH area were selected as the sample and 524 of them answered an interviewer administered questionnaire. 25 PHMM answered a self administered questionnaire and 24 sessions of all 12 antenatal clinics (2 per each) were studied on dispensing of folic acid tablets using an observational check list. Data collected from the pregnant mothers and PHMM were analysed using descriptive statistics where the comparisons were done using Chi square and likelihood ratio. Clinic observations were analysed using Lot Quality Assurance Sampling (LQAS) technique.

Majority of the pregnant mothers was Sinhalese (93.7%, n=491) and from rural (79.6%, n=417) areas. More than 60% (n=316) of pregnant mothers have passed G.C.E.O/L exam and 43.3% (n=227) were primi mothers. Seventy one percent (n=372) of the pregnant mothers have planned their pregnancies and 194 (52.2% of planned pregnancies) had received pre-pregnancy advice from a healthcare worker. Awareness

of folic acid was 96.4% (n=505). The overall knowledge on folic acid which was decided as 'good' on the correct answers to all 3 questions on timing, duration and preventing NTD, was 'poor' in 84.9% (n=445). Majority have received knowledge from PHMM. Only 46% (n=241) have used folic acid before the conception and 96% (n=503) have used it at any stage of the pregnancy. Among the mothers who used folic acid before conception, 212 (88%) have bought it from a private pharmacy. Expectation of 'good health of their future baby' was the motivating factor for 33.6% (n=81) to use folic acid before the conception and for 43.5% (n=219) during the pregnancy. Hundred and thirty two pregnant mothers have not used it preconceptionally, because they have not planned the pregnancy. All the PHMM have promoted folic acid during their home visits to women who expected to conceive and 96% (n=24) promoted it during the registration of eligible couples. Twenty two (88%) PHMM have advised their clients to get folic acid from their clinics/office before the conception and only 48% (n=12) had advised them to buy it outside. When observing the dispensing of drugs it was revealed that cleanliness and tidiness of the counter, storage and quality of folic acid tablets were satisfactory. But providing knowledge on folic acid, inquiring regarding the compliance and wrapping of the drugs were not satisfactory.

A poor knowledge on folic acid supplementation was associated with the lower age of the pregnant mother, belonging to an ethnicity other than Sinhalese, living in an urban or estate area and a lower level of education. A lower rate of utilization of folic acid before the conception was associated with 2nd or higher parity, belonging to an ethnicity other than Sinhalese, living in an estate, a lower level of education, unplanned pregnancy and not receiving advice from a healthcare worker. A lower rate of utilization of folic acid during the pregnancy was associated with lower level of education, unplanned pregnancy and not receiving advice from a healthcare worker.

Following were recommended. A properly planned health promotion campaign should be carried out. All the PHMM should be taught Tamil. A research should be conducted to find the reasons for unplanned pregnancies. Measures should be taken for further reduction of teenage pregnancies. Folic acid should be distributed through government clinics for women in preconceptional period. A mechanism should be developed to monitor the impact of the folic acid supplementation programme such as repeating the current study, assessing serum or red blood cell folic acid levels, periodically and proper maintain of a perinatal mortality register to assess the NTD prevalence.

Key words: Folic acid, pregnancy, preconception, knowledge, Sri Lanka